7. To promote good fellowship, and endow its members with the perfection of the moral sense.

8. To endow its members with a spirit of altruism, common understanding, mutual benevolence and helpfulness.

9. To champion the cause of Education, and to maintain new channels for facilitating the dissemination of culture and learning.

Thus, in this golden anniversary year, I join with my many colleagues in congratulating the members of AHEPA and in wishing them continued success in carrying out their goals and thereby in further insuring the continuance of their great civilization and heritage.

SENATE—*Friday, July 28, 1972*

The Senate met at 10 a.m. and was called to order by the Acting President pro tempore (Mr. METCALF).

PRAYER

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

Eternal Father, our Creator, Preserver, and Redeemer in whose will is the destiny of men and nations, we pause this day to offer our memorial of thanksgiving and affection for our fallen colleague, friend, and coworker—ALLEN JOSEPH ELLENDER. We thank Thee for the magnitude of his service to his State, the Nation, and the world, for the diversity of his interests, the variety of his achievements, and for the vitality of his life from the beginning until the end. We thank Thee especially for his place in this body, for the idealism which motivated the course of his life, for his leadership in great causes, for his zeal for the common welfare, for the constancy of his devotion, for his sturdy patriotism, for his sincere faith and his unfailing friendliness to people at home and abroad. May the memory of his great and good life inspire us to nobler endeavors and a more selfless service.

Through Jesus Christ our Lord. Amen.

THE JOURNAL

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the reading of the Journal of the proceedings of Thursday, July 27, 1972, be dispensed with.

The ACTING PRESIDENT pro tempore (Mr. METCALF). Without objection, it is so ordered.

ELECTION OF PRESIDENT PRO TEMPORE

Mr. MANSFIELD. Mr. President, after discussing this matter with the distinguished minority leader, and in the interest of the continuity of government, I send to the desk a resolution and ask for its immediate consideration.

The ACTING PRESIDENT pro tempore. The resolution will be stated.

The assistant legislative clerk read the resolution as follows:

S. Res. 333

Resolved, That Honorable JAMES O. EASTLAND, a Senator from the State of Mississippi, be, and he is hereby, elected President of the Senate pro tempore, to hold office during the pleasure of the Senate, in accordance with the resolution of the Senate adopted on the 12th day of March 1890 on the subject.

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

There being no objection, the Senate proceeded to consider the resolution.

Mr. SCOTT. Mr. President, in accordance with earlier actions by Republican conferences, I send to the desk an amendment and ask for its immediate consideration.

The ACTING PRESIDENT pro tempore. The amendment will be stated.

The assistant legislative clerk read as follows:

Strike the name of JAMES O. EASTLAND of Mississippi and insert in lieu thereof GEORGE D. AIKEN of Vermont.

The ACTING PRESIDENT pro tempore. The question is on agreeing to the amendment of the Senator from Pennsylvania.

The amendment was rejected.

The ACTING PRESIDENT pro tempore. The question is on agreeing to the resolution.

The resolution (S. Res. 333) was agreed to.

NOTIFICATION TO THE PRESIDENT

Mr. MANSFIELD. Mr. President, I send to the desk a resolution and ask for its immediate consideration.

The ACTING PRESIDENT pro tempore. The resolution will be stated.

The assistant legislative clerk read as follows:

S. RES. 334

Resolved, That the President of the United States be notified of the election of Honorable JAMES O. EASTLAND, a Senator from the State of Mississippi, as President of the Senate pro tempore.

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

There being no objection, the resolution (S. Res. 334) was considered and agreed to.

NOTIFICATION TO THE HOUSE

Mr. MANSFIELD. Mr. President, I send to the desk another resolution and ask for its immediate consideration.

The ACTING PRESIDENT pro tempore. The resolution will be stated.

The assistant legislative clerk read as follows:

S. RES. 335

Resolved, That the House of Representatives be notified of the election of the Honorable JAMES O. EASTLAND, a Senator from the State of Mississippi, as President of the Senate pro tempore.

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

There being no objection, the resolution (S. Res. 335) was considered and agreed to.

ADMINISTRATION OF OATH

The ACTING PRESIDENT pro tempore. The Senator from Mississippi (Mr. EASTLAND) will approach the desk and the oath will be administered to him.

The Honorable JAMES O. EASTLAND, escorted by Mr. STENNIS, advanced to the desk of the Vice President; the oath prescribed by law was administered to him by the Acting President pro tempore (Mr. METCALF).

EXECUTIVE SESSION

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

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

The PRESIDENT pro tempore (Mr. EASTLAND). The nominations on the Executive Calendar will be stated.

DEPARTMENT OF JUSTICE

The second assistant legislative clerk read the nominations in the Department of Justice, as follows:

Robert E. J. Curran, of Pennsylvania, to be U.S. attorney for the eastern district of Pennsylvania for the term of 4 years.

Carl E. Hirshman, of New Jersey, to be U.S. marshal for the district of New Jersey for the term of 4 years.

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

The 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 the confirmation of these nominations.

The 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.

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

COMMITTEE MEETINGS DURING SENATE SESSION

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the Permanent Subcommittee on Investigations of the Committee on Government Operations;

the Committee on Agriculture and Forestry; and the Subcommittee on Indian Affairs of the Committee on Interior and Insular Affairs be authorized to meet during the session of the Senate today.

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

FUNERAL ARRANGEMENTS FOR SENATOR ELLENDER OF LOUISIANA

Mr. MANSFIELD. Mr. President, according to the latest information I have, relative to the funeral of our late beloved colleague Senator ELLENDER of Louisiana, I can give the Senate the following tentative information, subject to confirmation later, or change.

It is proposed that Senator ELLENDER's body will be on view today at Gawler's Funeral Home from late afternoon until 7 or 8 p.m. tonight.

On tomorrow, Saturday, July 29, his body will arrive at Baton Rouge at 9 a.m., central time.

It will lie in state in the capital at Baton Rouge from 10 a.m., Saturday, July 29, to 6 p.m. that same day.

The body will then be moved to Houma Municipal Auditorium, and will be on view from 10 a.m., Sunday, July 30, to 9 p.m. Sunday, July 30.

At 9 a.m. on Monday, July 31, the body will be moved to St. Francis de Sales Catholic Church in Houma for an 11 a.m. service. The congressional delegation is expected to attend that service.

Burial will be immediately after the service at Bourg, La., which is approximately 10 miles south of Houma. Senators will be expected to attend graveside services.

To repeat, burial will be immediately after the service at Bourg, La. The service will occur at 11 a.m. on Monday morning next, July 31.

Mr. LONG. Mr. President, I call up Senate Resolution 336 which now is at the desk and ask for its immediate consideration.

The PRESIDING OFFICER (Mr. HANSEN). The resolution will be stated.

The assistant legislative clerk read as follows:

S. RES. 336

Resolved, That the Secretary of the Senate is hereby authorized and directed to pay from the contingent fund of the Senate the actual and necessary expenses incurred by the committee appointed to arrange for and attend the funeral of the Honorable ALLEN J. ELLENDER, late a Senator from the State of Louisiana, on vouchers to be approved by the chairman of the Committee on Rules and Administration.

The PRESIDING OFFICER. Is there objection to the present consideration of the resolution?

There being no objection, the resolution was considered and agreed to.

ORDER FOR TRANSACTION OF ROUTINE MORNING BUSINESS

Mr. MANSFIELD. Mr. President, I ask unanimous consent that there be a morning hour for the transaction of routine morning business for not to exceed 45 minutes, with statements therein limited to 3 minutes.

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

QUORUM CALL

Mr. MANSFIELD. Mr. President, I suggest the absence of a quorum.

The PRESIDENT pro tempore. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

ORDER FOR ADJOURNMENT TO 10 A.M. MONDAY, JULY 31, 1972

Mr. ROBERT C. BYRD. Mr. President I ask unanimous consent that when the Senate completes its business today it stand in adjournment until the hour of 10 a.m. Monday next.

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

ORDER FOR CONVENING OF SENATE ON TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, AND SATURDAY OF NEXT WEEK AT 10 A.M.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that when the Senate completes its business on Monday, Tuesday, Wednesday, Thursday, and Friday of next week it stand in adjournment, respectively, until the hour of 10 a.m. on Tuesday, Wednesday, Thursday, Friday, and Saturday of next week.

The PRESIDING OFFICER. Is there objection?

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

Mr. ROBERT C. BYRD. Mr. President, I gladly yield to the distingiushed minority leader.

PROGRAM

Mr. SCOTT. Mr. President, I asked the distinguished assistant majority leader to yield so that I could emphasize for the RECORD that in previous conversations with him I had understood not only that it is the intention of the Senate to be in session on Saturday, August 5, but also on Saturday, August 12.

Mr. ROBERT C. BYRD. The distinguished Republican leader is correct, unless the legislative program were to move so expeditiously as to remove the necessity of meeting on either or both of those Saturdays. I would say that at this point there is the strongest likelihood that the Senate will be in session on both of those Saturdays.

Mr. SCOTT. I thank the distinguished assistant majority leader.

Mr. President, I would like to add that we have a very large amount of legislative business to transact before we recess for the Republican Convention.

That includes, among other matters, revenue sharing, the normal appropriation bills, some conference reports, and many other matters which we have attempted to slate during this period.

This includes the Agnes Recovery Act, and I would hope that the Commerce Committee would hold hearings next week on the Agnes Recovery Relief Act for railroad equipment, trackage, and other damaged areas. I believe that the Commerce Committee will hold these hearings.

That is a measure which I introduced. We have a military procurement bill pending. Later we will have some announcement to make on that. We are all trying to complete action on it by the middle of the week.

I hope that Senators will arrange their schedules accordingly in recognition of the fact that the more we accomplish now the less will be left on the slate when we return from the convention.

Mr. ROBERT C. BYRD. Mr. President, the distinguished Republican leader has stated the case quite aptly, as he always does.

In addition to the items to which he has referred which remain for action before adjourning for the convention are the SALT treaty, the interim agreement on offensive weapons, the military construction authorization, the military construction appropriation, the no-fault insurance bill, the private pension bill, a crime bill, the so-called Saturday Night Special bill, and others.

As the distinguished Republican leader has also so very appropriately stated, there will be very little time between the reconvening of the Senate and the House, following the convention, and October 1. I know all of us hope we can complete the people's business in time for an October 1 adjournment sine die. That is just a hope at this point in time, a hope that springs eternal in the human breast, but I think we might as well express our hope to achieve that end.

Mr. SCOTT. And hope springs eternal in the other body, where all Members must contend for reelection every 2 years. I think in all fairness to our colleagues who are engaged in political campaigns, we should make every effort to so arrange our schedule to dispose of all major business on or before the 1st of October, so to allow precious little time for the essential business of reporting back to the people. There is a saying that we spring from the people and then spring back at them every 2 years for their approval or disapproval.

I think our present system is not anywhere near perfect. We should be out of here earlier in the year, because the most fruitful part of the legislative work is the interaction between the legislative branch and the constituents, and the constituents do not understand why we have to remain here. They do not understand why the floor of the Senate is so often nearly empty. I would like to repeat again that our colleagues at this minute are meeting constituents, are engaged in important matters in commit-

tee sessions, and are available somewhere in the vicinity, meeting with businessmen, trade union representatives, civic organizations, and so forth, and that is evidenced by the fact that when we have a rollcall vote they appear. While that may not be obvious to the people observing us they already have been well and fully informed on the matter which we are debating.

But we can get more done if Senators are willing to stay here on Saturdays and work late. It is difficult. Last night was a very difficult night for me, for example, because of other engagements, but we want to have some self-discipline if we are going to get the work done.

I hope next year we can lay out a reform of our procedure so as to bring in these appropriation bills earlier, as the distinguished assistant majority leader has taken the lead in proposing. As he knows, I am in favor of the proposal of the Senator from Washington (Mr. MAGNUSON) to get rid of the authorization bills by an early date certain so we can go on with appropriations. Anyway, there is need for relief, and I hope we learn from our difficulties in order to give a better legislative setting in the new Congress.

Mr. ROBERT C. BYRD. Mr. President, I am sure that the leadership on both sides of the aisle joins in commending all Senators for the marvelous cooperation they have shown in working out time agreements, and the equally marvelous restraint they have displayed with respect to the long sessions, the tiring sessions the Senate has been engaged in for quite some time now.

Our colleagues have been most understanding at all times, most patient, and most cooperative. As a result, since the Senate reconvened following the Democratic Convention, I think it is worthwhile to note that several important and controversial bills have been acted on. The maritime bill has passed, the marine mammals bill has passed, the minimum wage bill has passed, and action was completed—although it was somewhat unexpected as to the outcome—on the Foreign Assistance Act, and the agriculture appropriation bill has been passed, plus other bills. Additionally, the defense authorization measure soon will be passed. I think this speaks well for Senators on both sides of the aisle.

Mr. President, I would hasten to say—and I will not prolong this matter—that under the excellent leadership of our late departed colleague, Senator ELLENDER, the Committee on Appropriations has already completed its hearings—I think I can say this and be correct—on all regular appropriation bills. As a matter of fact, the Senate has acted now on 10 of the 13 regular appropriation bills, not counting the urgent supplemental bills, leaving only three regular appropriation bills to be acted on by the Senate before the Senate adjourns sine die.

As soon as the other body acts on the three remaining regular appropriation bills and gets them over to the Senate, our subcommittees are ready to mark up the bills. Of course, there are some authorization bills still pending, but I think it speaks exceedingly well for the Committee on Appropriations, and the Senate, to refer to this remarkable record of action on these appropriation bills, which as far as I can remember is the best record of any year in recent years.

The PRESIDING OFFICER. The time of the Senators has expired.

If there is no objection to the unanimous-consent request, it is so ordered.

MESSAGE FROM THE PRESIDENT

A message in writing from the President of the United States was communicated to the Senate by Mr. Leonard, one of his secretaries.

QUORUM CALL

Mr. ROBERT C. BYRD. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

PROCLAMATION OF "NATIONAL SHUT-IN DAY"

Mr. ROBERT C. BYRD. Mr. President, I ask the Chair to lay before the Senate a message from the House of Representatives on Senate Joint Resolution 208.

The PRESIDING OFFICER laid before the Senate the amendments of the House of Representatives to the joint resolution (S.J. Res. 208) authorizing the President to proclaim the first Sunday in June of each year as "National Shut-In Day", which were on page 2, lines 4 and 5, strike out "the first Sunday in June of each year" and insert "the third Sunday in October of 1972".

Strike out the preamble.

And amend the title so as to read: "Joint resolution authorizing the President to proclaim the third Sunday in October of 1972 as 'National Shut-In Day'."

Mr. ROBERT C. BYRD. Mr. President, I move that the Senate concur in the amendments of the House.

The motion was agreed to.

QUORUM CALL

Mr. ROBERT C. BYRD. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. HOLLINGS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

THE LATE J. EDGAR HOOVER FAVORED GUN CONTROLS

Mr. HOLLINGS. Mr. President, for the last several days, newspapers and television networks have carried statements to the effect that the late J. Edgar Hoover, Director of the Federal Bureau of Investigation, was opposed to gun controls. The purpose of this letter is to set the record straight.

On March 10, 1972, I had the honor to preside at a hearing by the Subcommittee of the Senate Committee on Appropriations for the Departments of State, Justice, Commerce, the Judiciary, and related Agencies. Our principal witness on the afternoon of March 10 was Mr. J. Edgar Hoover. He was before the subcommittee from 2 p.m. to 4:55 p.m., testifying in support of the fiscal 1973 budget request for the FBI. During this hearing the following colloquy occurred between Mr. Hoover and myself on his position relative to the necessity for gun controls:

(Senate Hearings, before a Subcommittee of the Committee on Appropriations, State, Justice, Commerce, the Judiciary, and Related Agencies Appropriations, H.R. 14989, Fiscal Year 1973, Part I, page 349)

GUN CONTROLS

Senator HOLLINGS. What is your position on gun controls?

Mr. HOOVER. My position is that I believe there should be a firm and foolproof gun control act, particularly for handguns. Seventy-three percent of the police murders represented on that chart I gave you were killed with handguns. The argument is made that the Constitution provides that all citizens be allowed to bear arms. That was written back, of course, in the Revolutionary days when you had the Indian wars in this country.

Today, I don't think a gun should be sold to anyone without a check first by a local law enforcement agency. The fingerprints should be checked and the department should certify that the gun permit be issued. The gun may be for legitimate purposes. Your life may be threatened and you may want to carry a gun. But you ought to be required to convince the local authorities that a gun is necessary. That wouldn't interfere with hunting. You can get the rifle or shotgun licensed.

Senator HOLLINGS. How many would be licensed? How many are estimated?

Mr. HOOVER. I don't know what the estimate is on that, Senator. I have seen various figures. I think it would run very high.

Senator HOLLINGS. But it could be done?

Mr. HOOVER. Of course, it could be done. I think it would certainly deter some individuals. They say it would hamper law-abiding citizens from having guns but it wouldn't deter the criminal. I don't share that view at all. I think if you have a law that makes it a crime to have a gun unless it is licensed, it will deter a criminal from possessing it because he might be searched by a law enforcement officer.

(Discussion off the record.)

FOREIGN-MADE FIREARMS

Senator HOLLINGS. What about foreign-made guns? Our chief in my State, Pete Strom, said so many of these offenses are committed with a Saturday Night Special, a small import .22, something that costs $5 or $6, that any kid can buy. Would you recommend a specific restriction on that type of handgun?

Mr. HOOVER. I certainly would. The restriction should cover all types of guns.

Senator HOLLINGS. How would you restrict it?

Mr. HOOVER. I would have it done by local authorities. It would be a crime for any store to sell a gun to one without a permit. The individual wanting to buy the gun would have to fill out a form which would be furnished to the local police authorities who, in turn, would have a check made as to the individual's background, character and reputation, and the reason why he wants the gun.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. ROBERT C. BYRD. Mr. President, if the Chair will recognize me, I will yield my 3 minutes to the Senator from South Carolina.

The PRESIDING OFFICER. The Senator from South Carolina is yielded 3 additional minutes.

Mr. HOLLINGS. I thank the Senator.

I believe that Mr. Hoover's answers to questions posed by me and which are set forth above are clear and concise and allow for only one conclusion—Mr. Hoover supported gun controls. To emphasize this point, I again quote my lead question and his answer:

I asked: "What is your position on gun controls?"

And Mr. Hoover answered: "My position is that I believe there should be a firm and foolproof gun control act, particularly for handguns."

I feel very strongly that a gross injustice is being done to the memory of a great American and outstanding public servant, by stating that the late J. Edgar Hoover was opposed to gun controls. As shown by the quotations above, the record is otherwise.

I noticed on three television shows the last weekend, going into the lead taken by Mr. James J. Kilpatrick, they said the stand of the Acting Director was a change from the stand taken by Mr. Hoover. That is absolutely false. That is shown by the record and quotations otherwise.

We will all agree that Americans are entitled to have access to the true facts so that they can take note of the stand taken by our late FBI Director, J. Edgar Hoover.

I yield the floor and thank my colleague from West Virginia for his courtesy.

VALEDICTORY ADDRESS BY ROBERT A. BURTON, WAKEFIELD HIGH SCHOOL, ARLINGTON, VA.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that a valedictory address delivered on Friday, June 16, 1972, by Robert Arnold Burton, valedictorian at the commencement exercises of Wakefield High School, Arlington, Va., be included in the RECORD.

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

VALEDICTORY

(By Robert A. Burton)

Members of the School Board, faculty, parents, friends and fellow graduates:

As we graduate, we observe an end to an era of our lives, but more importantly, we are witnessing the beginning of a new era. The word commencement itself means—a beginning. Tonight, as we celebrate the past, we awaken the future. A future that provides us with the opportunity of shaping the destiny of this generation. A future that is beyond our vision, but not beyond our control.

As we seek ways to shape our future, we must look beyond the immediate months ahead to ten or twenty years from now, and ask ourselves, "What do I want to achieve in my life? What are my goals? How should I challenge myself?" When we have answered these questions completely and truthfully to ourselves, we will begin to understand how we can control our future. Each individual will answer these questions differently because each will have his own dreams, hopes, and aspirations. But, as we embark tonight on different paths to the future, there should be some common challenges and goals that each of us can share to make *our* generation a generation fully dedicated to benefiting mankind.

We must share the goal of possessing clear sight and an open heart for the needs of others. This is something that will hardly come naturally because we will have so many needs of our own—our families, our jobs, our problems. It takes an extra dimension of vision to see beyond our inner circle of personal interest to the needs of others. To see beyond this inner circle is a challenge and a hope that should be common to all of us.

As we enter society to a greater degree, we must also meet a second basic challenge—the challenge of developing more fully positive personalities. If it is true that man's greatest natural resource is man himself, then it is our obligation to improve ourselves in order to be a contributing factor in the improvement of the world community. To accomplish this challenge of self-improvement, we must realize that every right implies a responsibility, and that every opportunity an obligation.

Then finally, there exists the most essential challenge that each of us must come to grips with. That challenge is to work toward benefiting mankind. Each generation has a destiny and each generation shapes that destiny. We all share broad and deep hopes for the future—a future where the energy of mankind is dedicated, not to destruction, but to building a better world for coming generations. But such an ideal is never self-fulfilling. We cannot stand idly by and expect our hopes for the future to come true under their own power. The future is not a gift; it is an achievement.

Each one of us can help shape the destiny of this generation in a positive way simply by utilizing our individual talents. However, if we bury our talents, if we fail to play our part however small, in serving mankind, then we will have done a disservice to our generation and failed to do our best. But, if it *may* be said of each of us years from now, that "he did his best" to make the world a bit better—then this Class will have achieved its ultimate goal.

To succeed in fulfilling such a goal is the essential challenge of the present; this is what we will face in the days ahead.

Indeed, this class of 1972 has a noble cause to fulfill—it is to serve mankind. Let us dedicate ourselves to fulfilling the common challenges that will benefit mankind:

The challenge of realizing and caring for the needs of others.

The challenge of improving man's greatest natural resource—himself.

And above all, the challenge of making the best of our inherent talents.

As we leave Wakefield tonight, we will witness a Class bound together by these common challenges of tomorrow. A class that has just begun to shape its generation.

Let us always remember, as it was once said:

This generation has a rendezous with destiny
The destiny is *now*
The rendezvous is important
The generation is ours!

QUORUM CALL

Mr. ROBERT C. BYRD. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

EXTENSION OF PERIOD FOR TRANSACTION OF ROUTINE MORNING BUSINESS

Mr. ROBERT C. BYRD. Mr. President, at what time will the period for routine morning business have expired today?

The PRESIDING OFFICER. At 10:54.

Mr. ROBERT C. BYRD. I thank the distinguished Presiding Officer.

I ask unanimous consent that the time for routine morning business be extended for not to exceed an additional 20 minutes beyond that hour.

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

Mr. ROBERT C. BYRD. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

RECESS UNTIL 11 A.M.

Mr. MANSFIELD. Mr. President, I move that the Senate stand in recess until the hour of 11 o'clock.

The motion was agreed to; and at 10:37 a.m. the Senate took a recess until 11 a.m.

Whereupon, the Senate reassembled at 11 a.m., when called to order by the Presiding Officer (Mr. HUGHES).

EXTENSION OF PERIOD FOR ROUTINE MORNING BUSINESS

Mr. TALMADGE. Mr. President, I ask unanimous consent that the morning hour be extended for 15 minutes.

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

QUORUM CALL

Mr. TALMADGE. 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. TALMADGE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

REMOVAL OF INJUNCTION OF SECRECY FROM EXECUTIVE P, 92D CONGRESS, SECOND SESSION, CONCERNING SHRIMP

Mr. TALMADGE. Mr. President, as in executive session, I ask unanimous consent that the injunction of secrecy be removed from an agreement between the Government of the United States of America and the Government of the Federated Republic of Brazil, concerning shrimp, signed at Brasilia on May 9, 1972 (Executive P, 92d Congress, 2d session) and transmitted to the Senate today by the President of the United States, and that the agreement with accompanying papers be referred to the Committee on Foreign Relations and ordered to be printed, and that the President's message be printed in the RECORD.

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

The message from the President is as follows:

To the Senate of the United States:

With a view to receiving the advice and consent of the Senate to ratification, I transmit herewith the Agreement Between the Government of the United States of America and the Government of the Federative Republic of Brazil Concerning Shrimp, together with an Agreed Minute and with a related exchange of notes concerning compensation, signed at Brasilia on May 9, 1972. I transmit also, for the information of the Senate, a related exchange of notes concerning interim undertakings, signed at Brasilia on May 9, 1972, and translations of the Brazilian notes.

The Agreement establishes a basis for regulating the conduct of shrimp fishing in a defined area off the coast of Brazil. Such regulation will help to conserve shrimp resources and will provide an interim solution for problems which have arisen concerning jurisdiction over those resources.

The measures prescribed in the Agreement will safeguard the economic interests of the shrimp industries of both Parties and protect from prejudice their respective legal positions on the extent of coastal state jurisdiction over ocean fisheries under international law. The interim nature of the Agreement reflects the expectation that this underlying question may in the near future be settled by general international agreement on the law of the sea.

A fuller explanation of the Agreement is contained in the report from the Department of State, which is transmitted herewith for the information of the Senate.

This Agreement will contribute to maintaining and strengthening the friendship and cooperation which have long characterized relations between the United States and Brazil. I recommend that the Senate give it early and favorable consideration.

RICHARD NIXON.

THE WHITE HOUSE, *July 28, 1972.*

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 the following joint resolutions, in which it requested the concurrence of the Senate:

H.J. Res. 807. Joint resolution authorizing the President to proclaim the second full week in October of 1972 as "National Legal Secretaries' Court Observance Week"; and

H.J. Res. 1026. Joint resolution requesting the President to issue a proclamation designating February 19, 1973, as "Nicolaus Copernicus Day" marking the quinquecentennial of his birth.

HOUSE JOINT RESOLUTIONS REFERRED

The following joint resolutions were each read twice by their titles and referred to the Committee on the Judiciary:

H.J. Res. 807. Joint resolution authorizing the President to proclaim the second full week in October of 1972 as "National Legal Secretaries' Court Observance Week"; and

H.J. Res. 1026. Joint resolution requesting the President to issue a proclamation designating February 19, 1973, as "Nicolaus Copernicus Day" marking the quinquecentennial of his birth.

QUORUM CALL

Mr. TALMADGE. 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. TOWER. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

MILITARY PROCUREMENT AUTHORIZATIONS, 1973—UNANIMOUS-CONSENT AGREEMENT

Mr. TOWER. Mr. President, I ask unanimous consent that the original unanimous-consent agreement allowing 1 hour of debate on my amendment to the military procurement bill be changed to 30 minutes, 15 minutes to a side, to be equally divided between and controlled by the distinguished chairman of the committee and myself.

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

Mr. TOWER. 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. MANSFIELD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

ENROLLED BILL SIGNED

The PRESIDENT pro tempore (Mr. EASTLAND) on today, July 28, 1972, signed the enrolled bill (H.R. 736) to designate certain lands in the Cedar Keys National Wildlife Refuge in Florida as wilderness, which had previously been signed by the Speaker of the House of Representatives.

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. METCALF:

S. 3854. A bill to amend section 5341 of title 5, United States Code, to provide for wage survey regions within the United States; and

S. 3855. A bill amending section 5341(c) of title 5, United States Code, relating to the determination of pay rates for prevailing rate employees. Referred to the Committee on Post Office and Civil Service.

By Mr. RIBICOFF:

S. 3856. A bill to amend the Public Health Service Act to provide assistance for programs for the diagnosis, prevention, and treatment of, and research in, Cooley's anemia. Referred to the Committee on Labor and Public Welfare.

By Mr. SPARKMAN (for himself and Mr. ALLEN):

S. 3857. A bill to provide for the establishment of the Cathedral Caverns National Monument in the State of Alabama, and for other purposes. Referred to the Committee on Interior and Insular Affairs.

By Mr. KENNEDY (for himself and Mr. MAGNUSON):

S. 3858. A bill to amend the Public Health Service Act to improve the program of medical assistance to areas with health manpower shortages, and for other purposes. Referred to the Committee on Labor and Public Welfare.

By Mr. BELLMON:

S. 3859. A bill to provide fiscal relief for States with respect to State public assistance programs. Referred to the Committee on Finance.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mr. RIBICOFF:

S. 3856. A bill to amend the Public Health Service Act to provide assistance for programs for the diagnosis, prevention, and treatment of, and research in, Cooley's anemia. Referred to the Committee on Labor and Public Welfare.

Mr. RIBICOFF. Mr. President, today I am introducing legislation to establish a national program for the diagnosis, prevention, and treatment of, and research in, Cooley's anemia—an inherited blood defect which is found in children whose ancestors were natives to countries surrounding the Mediterranean Sea—principally Italy and Greece.

The disease, first described and classified by Dr. Thomas Cooley in 1925, is caused by a genetic defect in the makeup of hemoglobin—the substance in red blood cells which enables them to carry oxygen to the body tissues.

Onset of the disease occurs early in childhood and is relentlessly progressive. Bones grow unevenly and become brittle, resulting in structural deformities and altered facial appearance. Organs such as the spleen and liver become enlarged. And the child with Cooley's anemia is listless—unable to engage in normal physical activity. Individuals who have the disease generally do not live beyond the first or second decade of life and must undergo frequent blood transfusions in order to maintain an adequate supply of red blood cells.

Cooley's anemia, also known as Mediterranean anemia or Thalassemia major, was originally limited to the Mediterranean area. As many as one in 100 children in some parts of Italy are thought to have the disorder.

Due to intermarriage and emigration of large numbers of people of Italian and Greek descent, the disease is now fairly widespread. There are presently no reliable statistics regarding the incidence of Cooley's anemia in the United States, but it has been estimated that the disease affects as many as 200,000 individuals in this country.

At present, there is no known cure for Cooley's anemia and no breakthroughs in prevention and treatment have been made in the 40 years since the disease was classified. However, diagnosis of the disease can be made during the first year of life and palliative measures to prolong life can be undertaken. In 1925 the life expectancy of a Cooley's victim was 1 year. Today, with the aid of blood transfusions, the average lifespan is approximately 20 years.

While research efforts at the National Institute of Arthritis and Metabolic Diseases and the National Heart and Lung Institute have begun to reveal the genetic mechanism responsible for the malady, more basic research is necessary. Present blood therapy treatment programs of transfusion are costly, debilitating, painful, and dangerous to life. Progress, then, is needed in both research and treatment.

Ultimately, the solution lies in prevention—whether through an effective program of screening and counseling or through the future development of some form of genetic therapy. At present, voluntary screening and counseling programs offer the best means by which to prevent occurrence of the disease. Coupled with sound education programs, they can provide reliable information to those affected.

The legislation I am proposing, the National Cooley's Anemia Control Act, authorizes a 3-year program to combat this disease.

One million dollars would be authorized for each of 3 years for the establishment and operation of Cooley's anemia screening, treatment, and counseling activities.

A second program would authorize expenditures of $1.7 million for each of 3 years to set up research projects on the diagnosis, treatment, and prevention of this disease.

Seventy-five thousand dollars is authorized over a 3-year period for the Secretary of Health, Education, and Welfare to develop information and educational materials relating to Cooley's anemia and to distribute such information and materials to medical personnel and the public generally.

I am hopeful that the Senate will consider this legislation, which has been approved in the House Interstate and Foreign Commerce Committee in large part because of the unstinting efforts of my distinguished colleague from Connecticut, Congressman ROBERT GIAIMO, of New Haven.

Mr. President, I ask unanimous consent to have printed in the RECORD an explanation of the bill and a fact sheet concerning Cooley's anemia.

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

EXPLANATION OF THE BILL

Section 1 of the bill provides that the Act may be cited as the "National Cooley's Anemia Control Act".

Section 2 of the bill contains the findings of Congress and declares the purpose of the Act to be the establishment of a national program for the diagnosis, prevention and treatment of, and research in, Cooley's anemia.

Section 3 of the bill contains the text of five new sections (numbered 1111-1115) to be added as Part B to Title XI of the Public Health Service Act. The following is a description of these sections.

Section 1111(a)(1) authorizes grants and contracts by the Secretary for projects for the establishment and operation of Cooley's anemia screening, treatment and counseling programs as part of other existing health care programs.

Section 1111 (a)(2) authorizes grants and contracts by the Secretary for projects for research in the diagnosis, treatment and prevention of Cooley's anemia, including the development of efficient and inexpensive detection tests.

Section 1111(a)(3) requires the Secretary to carry out a program to develop information and educational materials relating to Cooley's anemia and to distribute such information and materials to persons providing health care and to the public generally.

Section 1111(b) authorizes appropriations of $1,000,000 for fiscal year 1973 and for each of the next 2 fiscal years to carry out subsection (a)(1); $1,700,000 for fiscal year 1973 and for each of the next 2 fiscal years to carry out subsection (a)(2); and $25,000 for fiscal year 1973 and each of the next 2 fiscal years to carry out subsection (a)(3).

Section 1112 provides that participation by any individual in any program under this Act shall be wholly voluntary and shall not be a prerequisite for benefits under any other Federal program.

Sections 1113 (a) establishes requirements applicable to grants under the Act. Each applicant must——

(1) Provide that programs for which a grant is sought shall be administered by or under the supervision of the applicant.

(2) Provide for strict confidentiality of information received from persons seeking screening, counseling or treatment under the Act.

(3) Provide for appropriate community representation in the development and operation of programs.

(4) Set forth fiscal control and accounting procedures.

(5) Provide for reports to the Secretary.

Section 1113 (b) provides that in making any grant or contract the Secretary shall take into account the number of persons to be served in the program and the extent to which rapid and effective use will be made of funds and give priority to programs operating in areas which the Secretary determines have the greatest number of persons in need of the services provided under the program. The Secretary is authorized to make grants for screening, treatment and counseling projects, when he determines that the projects will utilize an effective and inexpensive Cooley's anemia detection test.

Section 1114 authorizes the Secretary to establish within the Public Health Service a voluntary Cooley's anemia screening, counseling and treatment program and to educate the public with regard to its availability. The program must make use of an inexpensive and efficient Cooley's anemia screening test.

Section 1115 requires the Secretary to report to the Congress on the administration of the Act and to make recommendations for any additional legislation he deems necessary.

Section 4 of the bill provides for a number of conforming amendments to conform to various provisions of the Public Health Service Act and changes the heading of Title XI of that Act to "Genetic Blood Disorders."

COOLEY'S ANEMIA: A FACT SHEET

Cooley's anemia is an inherited blood disease characterized by a diminished production of hemoglobin, the substance in red blood cells which enables them to carry oxygen to the tissues of the body. The result of this inadequate production of hemoglobin is a particular form of anemia. Dr. Thomas B. Cooley, an American physician, discovered and labeled this disease around 1925.

Cooley's anemia, also known as Mediterranean anemia or thalassemia major, is found in children whose ancestors were natives to the countries surrounding the Mediterranean Sea. In America, these children are of predominantly Greek and Italian origin, although because of widespread intermarriage the disorder is also found in children of Irish, Scandinavian, Jewish, Oriental, and Turkish descent.

There are two forms of Cooley's anemia: the severe form, called thalassemia major; and the carrier or trait form, thalassemia minor. The difference between these forms depends on whether the individual has inherited half or all of the genetic code or defective hemoglobin synthesis from his parents. Following Mendelian laws, two carriers of the trait who marry may have the possibility of producing the trait in 50% of their offspring, and the disease, Cooley's anemia, in 25% of their offspring.

Individuals with the carrier form of thalassemia minor are not handicapped with any physical defects; in fact the only physical sign or symptom of the trait may be a change in the size and shape of the red blood cells. Individuals with the carrier form of the disorder have a normal life span and enjoy normal health. The trait (thalassemia minor) never increases in severity or converts to the severe form of the disease. At present the chief methods of detecting the carrier form involve a number of hematologic tests including electrophoresis.

Thalassemia major is usually detectable during the first year of life; its early signs include pallor, listlessness, loss of appetite, and irritability. An examination of the victim's blood will show changes in the size, shape, and numbers of red blood cells, and a variety of abnormal characteristics in special properties of the blood cells, in addition to severe anemia. Individuals with thalassemia major rarely live beyond the age of 20, and from their first year of life may have to undergo blood transfusions almost daily in order to maintain a blood count sufficient for

survival. The anemia itself is basically caused by a reduction in the rate at which red blood cells are formed in the bone marrow and released to the blood stream. In Cooley's anemia, these defective red blood cells do not survive more than one-third to one-half of the life span of normal red blood cells. There is often an enlargement of the spleen which causes further complications in the rate of blood cell production. The anemia created from this low rate of production leads to severe handicaps in its young victims. Cooley's children tend to be small for their age because bone growth is poor. In addition, they suffer malformed bone development leading to brittle, easily-broken bones and an alterated, somewhat mongoloid, facial appearance. The child afflicted with Cooley's anemia cannot usually engage in strenuous physical activities since the anemia causes fatigability.

There is no known cure for Cooley's anemia. At present the only effective treatment is supportive therapy such as the administration of blood transfusions to alleviate the constantly recurring anemia. Some children require transfusions several times a week; some very rarely. Besides the inconvenience of these transfusions, they also add the problem of creating excess amounts of iron in the body which then collects in the liver, heart, pancreas, and other vital body organs. This iron overload may eventually lead to failure of the liver, pancreas and endocrine organs, and heart. There are chemicals that can remove this excess iron, but those presently available are too toxic for clinical use.

There are no statistics available on the exact number of cases of Cooley's anemia in the United States. It is estimated though that there are around 200,000 individuals in this country who are carriers of the trait.

By Mr. SPARKMAN (for himself and Mr. ALLEN):

S. 3857. A bill to provide for the establishment of the Cathedral Caverns National Monument in the State of Alabama, and for other purposes. Referred to the Committee on Interior and Insular Affairs.

Mr. SPARKMAN. Mr. President, for myself and for Senator ALLEN, I am introducing a bill to establish Cathedral Caverns near Grant, Ala., as a national monument.

Cathedral Caverns is truly a spectacular natural attraction. The entrance to Cathedral Caverns is the world's largest cave entrance. Inside the caverns, one finds the world's largest stalagmite, the world's largest frozen waterfall, the world's largest stalagmite forest, and the world's largest cavern room. The cave is situated 35 miles south of the Alabama-Tennessee border. It is 80 miles west of Georgia and 150 miles east of Mississippi. Visitors from every State in the Union and from 25 to 30 foreign countries have visited Cathedral Caverns. Its central location in the Southeast and the spectacular attractions that it offers make it ideal as a national monument, to be preserved for future generations of Americans to enjoy.

Mr. President, Senator ALLEN and I are pleased to take this first step toward preserving Cathedral Caverns.

By Mr. KENNEDY (for himself and Mr. MAGNUSON):

S. 3858. A bill to amend the Public Health Service Act to improve the program of medical assistance to areas with health manpower shortages, and for other purposes. Referred to the Committee on Labor and Public Welfare.

EMERGENCY HEALTH PERSONNEL ACT AMENDMENTS OF 1972

Mr. KENNEDY. Mr. President, one of the most difficult and intransigent problems in America's health care crisis is that of attracting health professionals into rural and inner-city areas of our Nation. For decades, health care professionals have increasingly gravitated toward urban centers and the surrounding suburbs. Fewer and fewer young physicians, dentists, and nurses choose to practice their profession in rural communities or in the inner city.

The result is that more and more rural communities have no physicians at all, and thousands of rural communities have critical shortages of health manpower.

As chairman of the Health Subcommittee, I have been into suburban counties which have as many as one physician for every 250 people, and to rural areas which have only one physician for every 2,500 people. I have also seen inner-city areas which are surrounded by doctor-rich suburbs, but which themselves have only the out-patent department of the public hospital to rely on for even the most routine health services.

The tragedy is, Mr. President, that this trend is continuing. More and more physicians have entered specialties in recent years, and most of them find the best vocation for specialty practice in suburban or urban America. Unless some change is brought about in this pattern, we can look forward to hundreds of counties in America with no physician at all, and thousands which receive only the scantiest of medical care.

The Congress has taken a number of important actions to reverse this trend. Last year, the Comprehensive Health Manpower Act and Nurse Training Act contains strong incentives by way of loan forgiveness and scholarship programs to attract young health professionals into areas with critical health manpower shortages. The Congress also passed several years ago, a program designed to stimulate the training of family physicians, since it is this specialty which is easiest to attract into practice in underserved areas. Despite the President's controversial veto of this bill, the Health Subcommittee will soon hold hearings on an extension of this act, and last year included a small version of this program in the Comprehensive Health Manpower Act.

But the most important and direct effort made by the Congress to solve the problems of rural and inner-city America, was led by Senator MAGNUSON several years ago, when he introduced the Emergency Health Personnel Act. This law permits the Secretary of Health, Education, and Welfare to send health professionals into areas which have been designated as having a critical health manpower shortage. To date, approximately 144 areas have been designated for assistance under this program. The bill that I am introducing today on behalf of myself and Senator MAGNUSON will extend the authority for this program, as well as eliminate some of the obstacles to rapid implementation which have been encountered during the first year and a half of the program's existence.

For example, the bill includes:

A generous scholarship program and an expanded recruitment program intended to facilitate recruitment of health professionals given the decrease in the doctor draft.

Requires that the Secretary take the initiative by designating areas eligible to receive help, notifying eligible community agencies of their eligibility, and assisting them in applying for help.

Requires that personnel be assigned and health services offered solely on the basis of need, without regard to the people's ability to pay.

Expands the authority of the Secretary to hire additional personnel in the area served as well as to acquire needed equipment and facilities.

In addition, the bill changes the role of the State and local medical societies from one of approving all personnel assignments to one of consultation on these assignments. This change is made based on the principle that a private, nonelected agent should not have a final say on the disposition of Federal funds and services.

The bill also assures that Public Health Service hospitals and clinics will be used wherever practical to serve areas with critical health manpower shortages. During the last year and a half, the Department of Health, Education, and Welfare has made clear its intent to close or transfer to community control eight Public Health Service hospitals.

Congress has repeatedly indicated to the Department that it wishes to review any plans for such closure for transfer, and its intent that such actions not jeopardize high-quality care for Public Health Service beneficiaries, or detract from the community's ability to offer health services to all of its people.

Last year, I introduced and the Senate passed a concurrent resolution, Senate Concurrent Resolution 6, which required congressional clearance of the Department's plans for these facilities, through June 30, 1972. This bill, which I introduce today, writes into the Public Health Service Act the requirement that HEW make adequate assurances and give adequate notice to Congress of its plans before taking any action to transfer or close Public Health Service facilities.

I believe this bill will protect the interest of the beneficiaries who receive care at these facilities, the people in the community who depend on the facility for health services, the health care institutions in the community that use the facility for training and research, and the interests of those Americans who might receive better health care if the facility were used as a basis for National Health Service Corps operations.

Mr. President, this bill addresses areas in which I anticipate broad support in both the Senate and the House. An equiv-

alent bill is today being introduced in the House of Representatives. The Health Subcommittee has scheduled hearings on August 2, and we hope to report a bill to the Senate for passage before the August recess. I urge my colleagues to give every attention to this bill and to join me in expediting its rapid consideration and passage.

Mr. President, I ask unanimous consent that the bill 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. 3858

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

SECTION 1. This Act may be cited as the "Emergency Health Personnel Act Amendments of 1972".

SEC. 2. (a) Section 329(a) of the Public Health Service Act is amended to read as follows:

"SEC. 329. (a) There is established, within the Service, the National Health Service Corps (hereinafter in this section referred to as the 'Corps') which shall consist of those officers of the Regular and Reserve Corps of the Service and such other personnel as the Secretary may designate and which shall be utilized by the Secretary to improve the delivery of health care and services to persons residing in areas which have critical health manpower shortages."

(b) Section 329(b) of such Act is amended to read as follows:

"(b)(1) The Secretary shall (A) designate those areas which he determines have critical health manpower shortages, (B) provide assistance to persons seeking assignment of Corps personnel to such designated areas to provide under this section health care and services for persons residing in such areas, and (C) conduct such information programs in such designated areas as may be necessary to inform the public and private health entities serving those areas of the assistance available under this section.

"(2) (A) The Secretary may, after approval of the National Advisory Council on Health Manpower Shortage Areas (established under subsection (e)) assign personnel of the Corps to provide, under regulations prescribed by the Secretary, (and after consultation with the local government of such area, the State and district medical society in that area, or other appropriate health society as the Secretary may determine), health care and services for all persons residing in areas designated by the Secretary under paragraph (1)(A), if the State health agency of each State in which such area is located, or the local public health agency, or any other public or non-profit private health entity in such area, requests such assignment. Corps personnel shall be assigned to such area on the basis of the extent of the need for health services within the area and without regard to the ability of the residents of the area to pay for health services.

"(B) In providing health care and services under this section, Corps personnel shall utilize the facilities, and organizational forms adapted to the particular needs of the area and shall make services available to all persons in such area regardless of the ability of such person to pay for the care and services provided in connection with—

"(i) direct health care programs carried out by the service;

"(ii) any direct health care programs carried out in whole or in part with Federal financial assistance; or

"(iii) any other health care activity which is in furtherance of the purposes of this section.

"(C) Any person who receives health care or services provided under this section shall be charged for such care or service at a rate established by the Secretary, pursuant to regulations, to recover the reasonable cost of providing such care or service; except that if such person is determined under regulations of the Secretary to be unable to pay such charge the Secretary shall provide for the furnishing of such care or service at a reduced rate or without charge. If a Federal agency, an agency or a State or local government, or other third party would be responsible for all or part of the cost of the care or service provided under this section if such care or service had not been provided under this section, the Secretary shall collect from such agency or third party the portion of such cost for which it would be so responsible. Any funds collected by the Secretary under this subparagraph shall be deposited in the Treasury as miscellaneous receipts."

(c) Section 329(c) of such Act is amended by striking out "Service" and inserting in lieu thereof "Corps".

(d) Section 329(d) of such Act is amended—

(1) by striking out "Service" in the first sentence and inserting in lieu thereof "Corps", and by inserting before the period at the end of such sentence the following: ", except that if such area is being served (as determined under regulations of the Secretary) by a hospital or other health care delivery facility of the Service, the Secretary shall, in addition to such other arrangements as the Secretary may make to insure the availability of care or services to Corps personnel in the area, arrange for the utilization of such hospital or facility by Corps personnel in providing care and services in such area, but only if such utilization shall assure the continual provision of care to persons entitled to care and treatment at such facilities at such time.";

(2) by striking out "If there are no such facilities in such area" in the second sentence and inserting in lieu thereof "If there are no health facilities in or serving such area";

(3) by adding after the second sentence the following new sentence: "In providing such care and services, the Secretary may (A) make such arrangements as he determines are necessary for the use of equipment and supplies of the Service and for the lease or acquisition of equipment and supplies, and (B) secure the temporary services of nurses and allied health professionals."; and

(4) by inserting "(1)" after "(d)" and by adding at the end the following:

"(2) The Secretary shall conduct at medical and nursing schools and other schools of the health professions and training centers for the allied health professions, recruiting programs for the Corps. Such programs shall include the wide dissemination of written information on the Corps and visits to such schools by personnel of the Corps."

(e) Section 329(e)(1) of such Act is amended by adding at the end thereof the following new sentence: "The Secretary may not assign personnel of the Corps under subsection (b)(2) without the approval of the Council."

(f) Section 329(f) of such Act is amended (1) by striking out "Service" in paragraphs (1) and (3) and inserting in lieu thereof "Corps", and (2) by striking out "to select commissioned officers of the Service and other personnel" in paragraph (2) and inserting in lieu thereof "to select personnel of the Corps".

(g) Subsection (g) of section 329 of such Act is redesignated as subsection (h) and the following new subsection is inserted after subsection (f) of such section:

"(h) The Secretary shall report to Congress no later than May 15 of each year—

"(1) the number of areas designated under subsection (b) in the calendar year preceding the year in which the report is made as having critical health manpower shortages and the number of areas which the Secretary estimates will be so designated in the calendar year in which the report is made;

"(2) the number and types of Corps personnel assigned in such preceding calendar year to areas designated under subsection (b), the number and types of additional Corps personnel which the Secretary estimates will be assigned to such areas in the calendar year in which the report is submitted, and the need (if any) for additional personnel for the Corps; and

"(3) the number of applications filed in such preceding calendar year for assignment of Corps personnel under this section and the action taken on each such application."

(i) Section 329(g) of such Act is amended by striking out "and" after "1972;" and by striking out the period at the end and inserting in lieu thereof "; $30,000,000 for the fiscal year ending June 30, 1974; $40,000,000 for the fiscal year ending June 30, 1975."

SEC. 3. (a) The Secretary may not close or transfer control of a hospital or other health care delivery facility of the Public Health Service unless—

(1) he transmits to each House of Congress, on the same day and while each House is in session, a detailed explanation (meeting the requirements of subsection (b)) for the proposed closing or transfer, and

(2) a period of 90 calendar days of continuous session of Congress has elapsed after the date on which such explanation is transmitted.

For purposes of paragraph (2), continuity of session is broken only by an adjournment of Congress sine die, and the days on which either House is not in session because an adjournment of more than three days to a day certain are excluded in the computation of the 90-day period.

(b) Each explanation submitted under subsection (a) for closing or transferring control of a hospital or other health care delivery facility of the Public Health Service shall contain—

(1)(A) assurances that persons entitled to treatment and care at the hospital or other facility proposed to be closed or transferred and persons for whom care and treatment at such hospital or other facility is authorized will, after the proposed closing or transfer, continue to be provided such equivalent care and treatment through such hospital or other facility, or under such new arrangement and (B) an estimate of the cost of providing such care and treatment to such persons after the proposed closing or transfer;

(2)(A) assurances that the health service needs of the critical manpower shortage areas near the facility will not be impaired by the closing or transfer and (B) a detailed explanation of how such persons will be provided such care and treatment after the proposed closing or transfer; and

(3)(A) assurances that any teaching program conducted at the hospital or other facility proposed to be closed may be conducted at other appropriate facilities, and (B) a detailed explanation of how such program will be conducted after the proposed closing or transfer.

(4) the approval of those agencies established under section 314(a) and (b) of this Act, having jurisdiction in the area in which such hospital or other facility is located, where both such agencies exist or the approval of only one such agency where only one exists in such area.

SEC. 4. Section 741(f) of the Public Health Service Act is amended (1) by striking out "The payments" in paragraph (2) and inserting in lieu thereof "Except as otherwise provided in this paragraph, the payments", and (2) by adding after and below subparagraph (C) the following:

"In the case of any individual who qualified under paragraph (1) for payments on the principal of and interest on a loan and who, as a member of the National Health Service Corps, practices his profession in an area designated under section 329(b), the portion of the principal of and interest on the loans for which payments may be made for and on his behalf under paragraph (1) shall, upon completion of the first year of such practice, be 50 per centum and, upon completion of the second year of such practice, be the remaining 50 per centum."

SEC. 5. Title II of the Public Health Service Act is amended by redesignating the section 223 of that title entitled "Defense of Certain Malpractice and Negligence Suits" as section 224 and by adding after that section the following new section:

"SCHOLARSHIPS

"SEC. 225. (a) To encourage students at schools of medicine, osteopathy, and dentistry to become commissioned officers of the Regular Corps upon completion of their professional training, the Secretary may make in accordance with this section scholarship grants for study at such schools.

"(b) To qualify for a scholarship grant under this section, an individual must make application therefore in such manner as the Secretary shall by regulation prescribe and must—

"(1) be enrolled or accepted for enrollment in a fulltime course of study at a school of medicine, osteopathy, or dentistry leading to a degree of doctor of medicine, osteopathy, or dentistry or an equivalent degree, and

"(2) enter into an agreement with the Secretary to serve upon completion of his professional training as a commissioned officer of the Regular Corps for a period of 6 months for each academic year a scholarship grant is received under this section.

Service under an agreement described in paragraph (2) shall begin within such reasonable period of time after completion of professional training as the Secretary shall by regulation prescribe.

"(c) A scholarship grant under this section shall be made in such uniform amount (not in excess of $5,000 per student per academic year), and shall be paid in such manner, as the Secretary shall by regulation prescribe.

"(d) If an individual fails to comply with the terms of his agreement with the Secretary for service in the Regular Corps, the United States may recover from such individual all or such portion of the amount of scholarship grants received by such individual under this section as the Secretary determines is appropriate. The Secretary shall by regulation provide for the waiver or suspension of any obligation under such an agreement applicable to any individual whenever compliance by such individual is impossible or would involve extreme hardship to him and if enforcement of such obligation with respect to him would be against equity and good conscience.

"(e) The Secretary may enter into agreements with schools of medicine, osteopathy, or dentistry or other appropriate public or nonprofit private agencies under which such schools or other agencies will, as agents of the Secretary, perform such functions in the administration of this section, as the Secretary may specify. Any such agreement with any school or other agency may provide for payment by the Secretary of amounts equal to the expenses actually and necessarily incurred by such school or other agency in carrying out such agreement.

"(f) For the purpose of making scholarship grants under this section, there are authorized to be appropriated $2,000,000 for the fiscal year ending June 30, 1973; $4,000,000 for the fiscal year ending June 30, 1974; and $8,000,000 for the fiscal year ending June 30, 1975. For the fiscal year ending June 30, 1976, and for each succeeding fiscal year, there are authorized to be appropriated such sums as may be necessary to continue to make such grants to students who received such a grant before July 1, 1975, and who are eligible for such a grant under this section during such succeeding fiscal year."

By Mr. BELLMON:

S. 3859. A bill to provide fiscal relief for States with respect to State public assistance programs. Referred to the Committee on Finance.

Mr. BELLMON. Mr. President, along with most other Members I have long been extremely concerned about this Nation's welfare program. Since coming to the Senate, I have supported efforts to bring about effective change and reform in this system. There has been much discussion and debate concerning this subject. I commend the first chairman and the members of the Finance Committee for the extraordinary effort they have put forth to bring a comprehensive welfare reform bill before the Senate.

However, I am not optimistic. At this late date in this election year it appears that there is a small chance that a comprehensive welfare reform measure will be passed by Congress this session. As a result, the States are facing a fiscal crisis in their welfare programs. This crisis has largely been produced by Federal decisions and without a welfare reform bill, it can only be rectified by the implementation of interim legislation. Therefore, I am introducing a bill to give States critically needed relief.

Mr. President, failure to enact legislation which provides some form of fiscal relief to the States will result in a reduction of benefits to literally millions of American citizens who are least able to survive the hardship.

Let us examine the facts: Over the past 5 years the cost of aid to families with dependent children has more than tripled. To a large extent this increase is due to decisions beyond the control of the States. Regulations issued by the Department of Health, Education, and Welfare and recent decisions of the Supreme Court regarding the removal of residency requirements and changes in the "man in the house" rule have greatly added to the welfare program costs to the States.

It has become impossible for the States to maintain their welfare program at present levels. During the past 2 years, more than 20 States have found it necessary to reduce the levels of assistance payments to needy recipients. Thus, it is imperative that the Senate act promptly to correct this situation before other States are forced to make cuts.

Although several proposals have been introduced for this purpose, the one I feel which contains the best approach for solution of this crisis is the proposal developed by the National Council of State Welfare Administrators which was adopted by that organization in the following resolution:

Whereas, the National Council of State and Public Welfare Administrators had supported the basic concepts of welfare reform; and

Whereas, the National Conference of Governors recently reaffirmed its support for certain basic concepts in welfare reform and urged additional improvements to pending legislation now before the Congress; and

Whereas, the President of the United States has requested the Congress to delay implementation of welfare reform to 1973; and

Whereas, the welfare crisis (particularly as it has resulted in increasing costs to all States and localities) is of such severity that it cannot wait for ultimate long-range solutions; now, therefore be it

Resolved, that the National Council of State Public Welfare Administrators urge the Congress to enact temporary legislation for the period July 1, 1971 to June 30, 1973 during which the formulae for Federal participation in the current public assistance aid programs be increased by twenty percent (20%) of the current Federal formulae as it relates to each State. Such temporary legislation will permit careful, considered deliberation of welfare reform proposals; it will relieve State and local taxpayers of crushing burdents; it may prevent further reductions in benefits to the poor and needy; and it will carry out, in part, the earlier commitment of the Federal Administration to assume $5 billion of welfare expenditures during the current fiscal year.

This resolution was reaffirmed by unanimous vote of the 50 directors on June 7.

My bill would accomplish this objective: Essentially it calls for a very simple and effective method for providing States with a measure of needed fiscal relief. It would simply increase Federal matching funds to States by 20 percent of the existing Federal formula for each State. This has the virtue of being simple and effective and easily understood. It would provide essential equity to all States since it is based on the existing established matching formulas which are related to the fiscal capacity of each State, and would thus extend a measure of relief for every State.

Mr. President, this bill is short, and I ask unanimous consent that it be printed in full in the RECORD at the conclusion of my remarks.

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

S. 3859

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Title XI of the Social Security Act is amended by adding at the end thereof the following new section:

"SEC. —. With respect to expenditures for aid or assistance made by any State under plans approved under titles I, X, XIV, XVI, and Part A of title IV for any quarter ending after June 30, 1972, and prior to July 1, 1974, the Secretary of the Treasury shall pay to each State in addition to such amounts as are otherwise payable under such approved plans, 20 per centum of such amounts, but in no event shall the total of Federal payments exceed 93 per centum of the total of expenditures for such aid or assistance."

ADDITIONAL COSPONSORS OF BILLS AND JOINT RESOLUTIONS

S. 32

At the request of Mr. KENNEDY, the Senator from Connecticut (Mr. WEICKER) was added as a cosponsor of S. 32, the Conversion Research, Education, and Assistance Act.

S. 1032

At the request of Mr. ROBERT C. BYRD (for Mr. HART), the Senator from California (Mr. CRANSTON) was added as a cosponsor of S. 1032, the Environmental Protection Act of 1972.

S. 1623

At the request of Mr. SCOTT (for Mr. BENNETT) the Senator from Colorado (Mr. ALLOTT) was added as a cosponsor of S. 1623, the National Health Insurance Partnership Act.

SOCIAL SECURITY AMENDMENTS OF 1972—AMENDMENTS

AMENDMENT NO. 1375

(Ordered to be printed and to lie on the table.)

Mr. METCALF submitted an amendment intended to be proposed by him to the bill (H.R. 1) to amend the Social Security Act to increase benefits and improve eligibility and computation methods under the OASDI program, to make improvements in the medicare, medicaid, and maternal and child health programs with emphasis on improvements in their operating effectiveness, to replace the existing Federal-State public assistance programs with a Federal program of adult assistance and a Federal program of benefits to low-income families with children with incentives and requirements for employment and training to improve the capacity for employment of members of such families, and for other purposes.

AMENDMENT NO. 1380

(Ordered to be printed and referred to the Committee on Finance.)

Mr. STEVENS. Mr. President, I strongly support efforts which have been made and which are being made to establish national standards for welfare assistance. There is no question that a change must be effected in the system which currently allows over 1,000 different programs to operate.

However, in our zeal to create an equitable system it is necessary to remember that very real differences do exist and if we are to provide a truly fair system these differences must be taken into account.

I would like to give you a couple of examples which are very relevant. In March a dozen eggs in Nome cost $0.97; a half gallon of milk sold for $1.68. Eggs cost only half as much and milk less than half as much here in Washington, D.C. The cost of living in my State of Alaska far exceeds the most expensive metropolitan area of the "lower 48." The Federal Government has long recognized this fact by providing a 25 percent cost-of-living increase for civil service employees in Alaska.

A family of four in Alaska receiving welfare assistance currently gets between $2,700 and $4,500 a year, depending on the ages of the children. Commissioner McGinnis of the State of Alaska Department of Health and Social Services has estimated that under the present provisions of H.R. 1, the State of Alaska will have to spend an additional $21 million next year just to maintain current benefit levels. This is, of course, due to the fact that many more people will be eligible than are currently covered. This is an inordinately high expenditure in comparison to other States when it is realized that the Alaskan caseload comprises only one-tenth of 1 percent of the national caseload.

So that the poor of Alaska are fairly treated without placing an unjust burden on the State of Alaska, I introduce the following amendment. I request unanimous consent that it be printed in full in the CONGRESSIONAL RECORD at this point.

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

AMENDMENT No. 1380

On page 134, between lines 15 and 16, insert the following new section:

SPECIAL PROVISIONS APPLICABLE TO BENEFITS PAYABLE TO RESIDENTS OF ALASKA

SEC. 144. (a) Title II of the Social Security Act is amended by adding after section 230 (as added by section 102 (b) of this Act) the following new section:

"SPECIAL PROVISIONS APPLICABLE TO BENEFITS PAYABLE TO RESIDENTS OF ALASKA

"SEC. 231. (a) The amount of any monthly insurance benefit to which any individual, who is a resident of Alaska, is entitled under the preceding provisions of this title shall be increased by a per centum equal to one-half of the per centum (if any) by which the per capita income of Alaska exceeds the per capita income of that one of the States of the United States which has the lowest per capita income.

"(b) (1) The per centum of increase to be used under subsection (a) shall be promulgated by the Secretary during November 1972 and during November of each even-numbered year thereafter, on the basis of the per capita income of Alaska and of the States of the United States for the most recent calendar year for which satisfactory data are available from the Department of Commerce. Such promulgation shall be effective for each of the two calendar years in the period beginning January 1 next succeeding such promulgation.

"(2) The term 'United States', for purposes of paragraph (1) only, means the District of Columbia and all of the fifty States except Alaska and Hawaii.

"(c) If the per centum of increase to be used under subsection (a) which would otherwise be promulgated for any calendar year would be lower than the per centum of increase promulgated for the immediately preceding period, such per centum of increase for such calendar year shall be increased to the extent of the difference; and the per centum of increase as so increased shall be the per centum of increase promulgated for such year.

"(d) For purposes of this subsection, an individual shall not be considered to be a resident of Alaska for any month during all of which he is physically absent from Alaska, if, for the two-month period immediately preceding such months, such individual has been continuously physically absent from Alaska."

On page 289, line 10, insert "Alaska," immediately before "Puerto Rico".

On page 289, line 12, insert "For special provisions applicable to Alaska, see section 1108 (f)." immediately after the period.

On page 361, line 22, insert "Alaska," immediately before "Puerto Rico."

On page 361, line 24, insert "For special provisions applicable to Alaska, see section 1108(f)." immediately after the period.

On page 408, line 16, insert "ALASKA," immediately after "FOR".

On page 408, line 18, insert "(a)" immediately after "Sec. 504.".

On page 410, between lines 9 and 10, insert the following:

(b) Section 1108 of the Social Security Act is further amended by adding after subsection (e) (as added by subsection (a) of this section) the following new subsection:

"(f) (1) In applying the provisions of—

"(A) subsections (a), (b), and (e) (1) of section 2011,

"(B) subsections (a) (2) (D) and (b) (2) of section 2012,

"(C) subsection (a) of section 2013,

"(D) subsections (a), (b), and (c) of section 2152,

"(E) subsections (a) (2) (C) and (b) (2) of section 2153, and the last sentence of subsection (b) of such section, and

"(F) the last sentence of section 2154(a), with respect to Alaska, the dollar amount to be used shall, instead of the figures specified in such provisions, be dollar amounts equal to that in the figures so specified plus a per centum thereof equal to one-half the per centum (if any) by which the per capita income of Alaska exceeds the per capita income of that one of the States of the United States which has the lowest per capita income.

"(2) (A) The amounts to be used under such sections in Alaska shall be promulgated by the Secretary between July 1 and September 30 of each odd-numbered year, on the basis of the average per capita income of Alaska and of the States of the United States for the most recent calendar year for which satisfactory data are available from the Department of Commerce. Such promulgation shall be effective for each of the two fiscal years in the period beginning July 1 next suceeding such promulgation.

"(B) The term 'United States', for purposes of subparagraph (A) only, means the District of Columbia and all of the fifty States except Alaska and Hawaii.

"(3) If the amounts which would otherwise be promulgated for any fiscal year for Alaska would be lower than the amounts promulgated for Alaska for the immediately preceding period, the amounts for such fiscal year shall be increased to the extent of the difference; and the amounts so increased shall be the amounts promulgated for such year."

SMALL BUSINESS ADMINSTRATION DISASTER LOAN—AMENDMENTS

AMENDMENTS NOS. 1376 THROUGH 1379

(Order to be printed and referred to the Committee on Banking, Housing and Urban Development.)

Mr. SCHWEIKER. Mr. President, I introduce four amendments to H.R. 15692, a bill to amend the Small Business Act to reduce the interest rate on Small Business Administration disaster loans.

The first of these amendments would lower the interest rate to 1 percent on loans to major sources of employment under section 237 of the Disaster Relief Act, Public Law 91-606. These loans are designed for larger companies which

would otherwise be ineligible for SBA assistance. Companies qualifying for section 237 loans are those which constitute a major source of employment in the local area and which have had their operations knocked out substantially by a disaster. Since these companies are vitally important to local economies, I believe it is essential to provide low-interest Federal loans so that these companies can get back on their feet and provide employment which is so desperately needed.

The second amendment would provide loans to new industries moving into a disaster area within 3 years after the disaster, provided that unemployment in the local area is at least 10 percent. The purpose of this amendment is to assist hard-hit local communities in attracting news sources of employment. It is vitally important that these communities be put in a position of being able to attract new industry after a disaster. Many small busineses may close, and larger companies may also decide not to reopen. Essentially, this amendment gives local communities a rebuilding tool after a major disaster. Limiting the eligibility for assistance to communities suffering from high unemployment assures that this type of assistance will be available only where it is really needed.

The third amendment permits the Small Business Administration to make loans for working capital purposes. At present, such loans are made only for reconstruction and repair of damaged facilities. However, businesses, particular small businesses, also need working capital in order to get back on their feet again.

The fourth amendment permits Federal grants to compensate local governments for the loss of tax revenue from nonproperty tax sources. Under the existing Disaster Relief Act, the Federal Government can reimburse local communities for the loss of property tax revenue resulting from a major disaster. This is entirely appropriate. However, in some States a substantial amount of local revenue is raised from nonproperty tax sources. For example, in Pennsylvania about 45 percent of all local revenue is generated from nonproperty taxes. This amendment recognizes that reality and permits the Federal Government to give grants to local communities for the loss of any kind of local tax revenue.

Mr. President, I ask unanimous consent that the text of these amendments be reprinted in the RECORD at this point.

There being no objection, the amendments were ordered to be printed in the RECORD, as follows:

AMENDMENT NO. 1376

On page 10, after line 17, insert the following:

SEC. 4. (a) In the case of a major disaster as determined by the President, or a disaster as determined by the Administrator of the Small Business Administration, which occurred after January 1, 1971, and prior to July 1, 1973, the Small Business Administration may make a loan to a nonagricultural enterprise, without regard to whether it suffered damage in that disaster or was located in the area affected by that disaster, for the purpose of enabling it to establish operations in a disaster area, without regard to limitations on the size of loans which may otherwise be imposed by any other provision of law (or regulation promulgated thereunder), if—

(1) unemployment in that area exceeds 10 percent at the time of the application for the loan; and

(2) the applicant will constitute a new major source of employment in that area.

(b) Loans made under this section shall bear interest at the rate of 1 per centum per annum.

(c) Assistance under this section shall be in addition to any other Federal disaster assistance except that such other assistance may be adjusted or modified to the extent deemed appropriate by the Director of the Office of Emergency Preparedness under section 208 of the Disaster Relief Act of 1970.

AMENDMENT NO. 1377

On page 10, after line 17, insert the following new section:

SEC. 4. Notwithstanding the provisions of section 234 or 237(b) of the Disaster Relief Act of 1970, loans made by the Small Business Administration under the authority of section 237 of that Act shall bear interest at a rate of 1 per centum per annum if such loans are made on account of a major disaster determined by the President, or a disaster determined by the Administrator of the Small Business Administration, which occurred after January 1, 1971, and prior to July 1, 1973.

AMENDMENT NO. 1378

At the end of the bill insert the following:

SEC. —. Section 231 of the Disaster Relief Act of 1970 is amended by—

(1) inserting "(a)" before the first word of text; and

(2) adding at the end of such section the following new subsection:

"(b) Loans to which this section applies may also be made for the purpose of providing working capital, the payment of operating expenses, and any purpose for which loans may be made under section 7(a) of the Small Business Act (15 U.S.C. 636 (a))."

AMENDMENT NO. 1379

At the end of the bill insert the following:

SEC. —. Section 241 of the Disaster Relief Act of 1970 is amended by striking out "property" wherever it appears, and by striking out "(both real and personal)".

ADDITIONAL COSPONSORS OF AMENDMENTS

AMENDMENT NO. 1357

At the request of Mr. METCALF, the Senator from North Carolina (Mr. ERVIN) was added as a cosponsor of Amendment No. 1357 intended to be proposed to the bill (H.R. 14370) to provide payments to localities for high-priority expenditures, to encourage the States to supplement their revenue sources, and to authorize Federal collection of State individual income taxes.

AMENDMENT NO. 1363

At the request of Mr. TOWER, the Senator from Arizona (Mr. FANNIN), the Senator from Georgia (Mr. GAMBRELL), the Senator from Florida (Mr. GURNEY), the Senator from Idaho (Mr. JORDAN), and the Senator from Florida (Mr. CHILES) were added as cosponsors of amendment No. 1363, intended to be proposed to the bill (H.R. 15495) authorize appropriations during the fiscal year 1973 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 authorize construction at certain installations in connection with the Safeguard antiballistic missile system, and to prescribe the authorized personnel strength for each active duty component and of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes.

ADDITIONAL STATEMENTS

SENATOR ALLEN J. ELLENDER, OF LOUISIANA—IN MEMORIAM

Mr. TALMADGE. Mr. President, on this warm misty day in July the flags droop at half staff on this building for a man now dead, who once filled its halls with the vitality of ageless vigor.

Unhappily, it is for us today to mourn the passing of the Honorable ALLEN J. ELLENDER, the dean of the Senate, the President pro tempore, the chairman of the Committee on Appropriations, and the former chairman of the Committee on Agriculture and Forestry for 18 years—serving longer than any of the 40 chairmen of this committee since the first was named in 1825.

Senator ELLENDER was born in his beloved Louisiana on September 24, 1890. He was a lawyer, a farmer, and a consumate politician, who oddly enough, seldom discussed politics.

Although he was a floor leader for the great Huey P. Long in the Louisiana Legislature, he left State politics behind when he came to the U.S. Senate in 1937, because he felt he should confine all of his responsibilities at the Federal level. Those of us who knew him best recall that this was truly a nonpartisan man—a Senator imbued with fairness for all and malice toward no one.

There are those who will come after me who will list the great number of accomplishments of this man. But I will mention only one trait of his. As you sweep across this great land in an airplane, from one huge city to another, it is easy to notice that most of America is small towns, farms, and open country. The people of rural Louisiana and rural America were his people. He loved their openness and friendly ways. He did his best to help them throughout his distinguished career, and these people owe ALLEN J. ELLENDER a debt they can never know, nor repay.

I may take pride in my work on rural development. But ALLEN ELLENDER was the mentor for us all. He was one of the authors of modern American farm policy, a program that has given this Nation an abundance of food at low cost, permitting our citizens to have more dollars to spend on enriching their lives.

When ALLEN first came to the Senate, junior Members were not generally permitted access to the major committees. When the leadership sent him a form on which he was to select his first three

choices for committee assignments, he wrote:

Agriculture, Agriculture, Agriculture.

The people of America can thank God that he did.

ALLEN ELLENDER was one of the first conservationists in Congress, and his concern for the environment was evidenced in many ways from the small farm ponds dotting the landscape to major waterways.

His concern for the children of America came to fruition when he and the late, lamented Richard B. Russell, of Georgia, began the school lunch program many years ago.

This was a frugal man, who more than anyone else stood on the bridge to prevent irresponsible forays upon the Federal budget. And this spirit of economy was reflected in his own spartan life style.

His staff members were his friends. One remembers him as a man who thought of his staff as a part of his family—people whom he was prepared to help in any way possible. But he wanted you to be an individual, to do your own thing.

When Senator ELLENDER needed to fill the position of chief clerk on the committee, he asked the State Board of Education in Louisiana to recommend the best man possible. The board sent him a man, and he was given the job even though he and the Senator had never met.

Another staff member on our committee remembers his sense of humor. She recalls:

Once the Senator told me to go down to his office and get something out of his desk drawer that reminded me of Herman. I opened the drawer and there was an enormous cigar. I brought it back to Senator Ellender and he presented it to Senator Talmadge, saying, "There, that ought to last you through a couple of meetings."

Most of us in the Senate are aware that ALLEN ELLENDER was a world traveler. He loved to talk about his trips abroad, the people he met, and the way they lived. Travel was Senator ELLENDER's therapy.

In 1965, after laboring long over a farm bill, he took off in a car over the long Labor Day weekend and drove 2,300 miles along the back roads of the country, stopping from time to time to talk to people along the way. When he returned to Washington, he said he was rested and ready to go back to work.

This constant communication with people of all nationalities was the spice that made Senator ELLENDER's life. It was what kept him strong and alert, and strong throughout his political career.

His other pastimes were Cajun cooking, fishing, and doting over his 13 grandchildren.

Each year he gave a dinner in his home for his entire staff, and he would do the cooking, preparing the Louisiana-French recipes which he loved so well.

There are those, who view this Congress superficially, who viewed ALLEN ELLENDER as a stern man with little compassion. Those of us who knew him better saw him as a warm human being who served his country better than most can ever dream to do. America has lost a great man. The U.S. Senate is diminished by his passing.

Mr. BIBLE. Mr. President, the death of Senator ALLEN ELLENDER has cost Senators not only their respected dean and President pro tempore but also their most tireless and dedicated colleague. It has cost the Nation one of its great leaders and independent thinkers.

It has cost us all a close friend.

ALLEN ELLENDER was not the type of man who often made headlines. He was always more intent on getting a job done than talking about it or publicizing it. It is a sad irony that this very attribute—this dedication to Senate service—prevented him from receiving the full national recognition he deserved.

But no man was more admired and respected in the Nation's Capital or in his own beloved State of Louisiana, where he began his career in public service nearly 60 years ago.

Our distinguished majority leader has called ALLEN ELLENDER a workhorse. If anything, that is an understatement. He was on the go constantly, putting in long hours at his desk, attending committee sessions, and taking an active role in floor debates. He was an expert on any given subject at any given time. His expertise and counsel were valued by all Senators, and we envied him his energy and his capacity. Only death could still his constructive hand, and it was sad but fitting that death came to ALLEN ELLENDER as he rushed back to the Senate, interrupting an exhausting campaign schedule to fulfill his responsibilities in Congress.

He died as he lived, never sparing himself in his dedication to Senate service.

ALLEN ELLENDER is most easily and quickly linked to agriculture and public works achievements, two areas in which he was an acknowledged expert as chairman of the Agriculture Committee and the Public Works Appropriations Subcommittee. But his interests and his leadership did not stop there. He was actively involved in every important issue, ranging from foreign relations and military preparedness to nuclear research and the national economy.

His workload and his interests increased still further—if that were possible—when he became chairman of the Committee on Appropriations. As a member of that committee and one who has served under several distinguished chairmen, I can say without hesitation that no one worked as hard as ALLEN ELLENDER in managing this powerful committee. He was everywhere. He presided at every meeting of the full committee and of his Subcommittee on Defense. And he was almost always present as an active participant when other subcommittees held their hearings or executive sessions.

No one cracked the whip on appropriations as did ALLEN ELLENDER. Yet no one was more liked and respected as chairman.

I doubt that much of the Nation realized the extent of its loss when ALLEN ELLENDER died. We on Capitol Hill realize it full well. We mourn his passing. We grieve at the loss of a good friend and great leader. And we know it will be a long time—if ever—before another man of ALLEN ELLENDER's remarkable energy and ability can replace him in the Senate.

Mr. HOLLINGS. Mr. President, it was with a great sense of personal loss that I learned last evening of the death of Louisiana's distinguished son, ALLEN J. ELLENDER.

Within the passage of little more than 1 year, the Senate has lost two of its modern giants. Last year it was Richard Brevard Russell who was taken from us. Senator Russell's successor as chairman of the Committee on Appropriations was, of course, ALLEN ELLENDER. They were men cut from the same mold. Both were workers, performers. They preferred the world of work and real progress to the ephermeral world of imagery and newspaper headlines. Both worked with a quiet diligence that is difficult to find these days. As a result, both made a historic imprint not only upon the deliberations of the Senate, but, more important, on the well-being of the Nation.

ALLEN ELLENDER's career of public service began in 1913. By the time he came to this Chamber in 1937 he had already compiled a distinguished record of service. He went on to serve 35 years in the Senate. These were years of cataclysmic change in the life of the United States. At home, the role of government altered significantly; while abroad, the United States assumed world leadership after a long history of isolationism. These were years to try the beliefs and shake the moorings of many of our citizens. But through them all, ALLEN ELLENDER moved with wisdom and consistency of character.

With an open and flexible mind, he was able to adjust to new realities, to move along with the tide of the passing years. Yet his deepest beliefs, his determined character, and his straightforwardness never changed. He was not shaken by great change in the outer world, because the inner world of his convictions remained stable. He believed in work. He believed in the goodness of his fellow man. He believed in his country.

With those moorings, he was no target for the insecurities and passing fancies of the changing times. In force of character he stood like a rock amidst the rushing waters of recent years. For that, we can all be thankful.

It was my privilege to know and serve with Senator ELLENDER during the past 6 years. I was on the Committee on Agriculture and Forestry under his chairmanship and—more recently—on the Committee on Appropriations with him. I welcomed his advice and counsel, which were always freely given. I admired his energy. Under his chairmanship, the Appropriations Committee worked at record speed in meeting its legislative obligations. Such was his energy and his ability to work that I was truly shocked by word of his passing, in spite of the fact that he was an old man by the terms of the calendar. We in the Senate remarked always on his fast pace and almost youthful determination.

One of my interests as a Member of the Senate has always been the elimination of hunger in the United States. I found Senator ELLENDER to be a leader in the drive. He was, in fact, an author of the original school lunch program.

The senior Senator from Louisiana was an expert in matters of agriculture and finance, and he always harbored a deep interest in international affairs. He traveled widely, and brought to his interest in diplomacy both insight and commonsense. He anticipated recent changes in our relationship with the Soviet Union, for instance, long before such changes were acknowledged by either State Department or White House. But his advice was frequently sought by those responsible for the conduct of America's statecraft.

Mr. President, the Senate of the United States will feel the loss of this good and able man. We will have to work all the harder to fill the void left by his untimely passing. We will have to rededicate ourselves to the labors at hand. We will have to work as he would have wanted us to work.

I join with ALLEN ELLENDER'S many friends in Louisiana, in this Chamber, and throughout the country in mourning the death of an outstanding leader, a fine American, and a tried and true friend.

Mr. SPONG. Mr. President, I saddened to hear of the sudden passing of the Senator from Louisiana (Mr. ELLENDER).

Senator ELLENDER was one of the Senate's most disinguished Members and a colleague whose friendship I valued and whose many acts of kindness I will not forget. No Member of the Senate devoted himself more tirelessly to his duties and yet was as ready to concern himself with the problems of a fellow Senator. I often benefited from his counsel, based upon long years of public service.

Senator ELLENDER'S death is a great loss to the Senate and to the people of the United States. I join my colleagues in extending the deepest sympathy to his family.

Mr. President, at the request of the distinguished Senator from Missouri (Mr. EAGLETON), I ask unanimous consent that a statement by him relative to the death of Senator ALLEN J. ELLENDER be printed in the RECORD.

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

STATEMENT OF SENATOR EAGLETON

I am saddened to learn of the death of Senator Allen Ellender, the senior Member of the United States Senate both in terms of his age and his length of service in that body.

By any measuring device, Senator Ellender was a conservative, and during my years in the Senate we have often been on the opposite side of the issues.

But Senator Ellender's conservatism was that of a free spirit and an open mind—one that reached out to touch the peoples of other lands and to understand the changing conditions of the world in which he was fully engaged until the hour of his death.

The Senate will miss his diligence, his integrity, and his zest for life.

Mr. COOPER. Mr. President, I know that a time will be set aside later for tributes to Senator ELLENDER, but I take the liberty of speaking today with a full heart—for all of us were saddened and shocked to learn last evening that he had left us. I am very glad I had spoken of the work of Senator ELLENDER in the Senate on October 8 last year, and to know that my remarks at that time gave him some satisfaction. I will not repeat today my comments about the importance of Senator ELEENDER'S work and the contribution that he made to the life of this country. It was a great work, for he was not only a true friend of the farmer but also devoted himself year after year to the resolution of farm problems—so intractable that for a time there was a widespread and general belief that they could not be solved. Monuments to his years of work as chairman of the Appropriations subcommittee on Public Works exist in nearly every State, and will protect communities from floods and provide transportation, water, and power to support the economic life of great areas of this country for years to come.

We worked together, and the people of my State of Kentucky owe much to the interest, attention, and effort of this great friend—one who was my friend, and a friend of my State. But I know that a recital of Senator ELLENDER'S accomplishments would be as long as his service in the Senate. His example for economy in government; his deep interest in our relations with other nations, and his efforts to reduce the danger of war and move toward better, peaceful relations with other countries are well known.

I prefer to speak today of Senator ELLENDER'S character and of his human qualities—which were, of course, reflected in all his work, but which also made the man.

I had spoken of his diligence, and others with deep affection have called ALLEN ELLENDER a workhorse of the Senate, not a show horse, but I would like to add that this attention and daily effort were directed to higher purposes. His attention went to due process—the consideration of the views of every witness. His confidence in an individual ability to understand and come to grips with problems—problems which appear increasingly complex and formidable—was an affirmation of hope renewed, reminding us that man can control his life and our destiny, and that we need not retreat into the blind night of chaos. He brought to his work each day this attitude—a determination in securing the facts, probing for answers, the assertion of the pre-eminence of individual experience, wisdom, and judgment. Especially during a period emphasizing consensus, reliance on polls, committees, and the anonymity of vast organizations, ALLEN ELLENDER'S approach gave witness to the essential value of the individual and of human dignity, which lie at the roots of our democratic system. It was largely in this way, through his human qualities and character, I believe, that he was a source of strength to us all, and a firm support in our structure of government.

ALLEN ELLENDER may not have been thought of as a complex personality, though charm, courtesy, and wit he had. He appeared direct and straightforward, almost plain, but no one ever needed to speculate about his views or position. He had his life in order, he knew his own mind, he had a firm grasp on what was right. Yet he was always willing to listen to the views of others, and practiced unwavering patience and constant courtesy.

He was a good man and a great Senator. He never forgot the needs of the people of Louisiana and worked faithfully for them. Yet he was also a leader for the Nation—a good and conscientious man, devoted to his own principles and to his country. He served his State, this body, and his country well, and I believe that his example will live on in this Chamber. We will miss him dearly.

A SPECIAL TRIBUTE

Mr. MONTOYA. Mr. President, it gives me great pleasure to salute a longtime friend, an outstanding woman, and a great American widely known as the "Mother of Organized Efforts To Help the Senior Citizen," Miss Fidelis O'Brien, of Albuquerque, who recently celebrated her 89th birthday.

Miss O'Brien has been active in efforts to sensitize American to the needs of their elderly citizens for many years. As far back as the White House Conference on Aging in 1960, Miss O'Brien was sponsoring four positive proposals designed to alleviate some of the many problems which face America's aged. She fought for increased incomes for the retired, supervised nursing homes, more partial employment for those who wish to continue to work after retirement, and expanded recreational opportunities. In all of these areas, Miss O'Brien has seen her efforts bear fruit.

While some would have rested, Miss O'Brien continued to dedicate her life to the needs of the elderly. In 1960, she was instrumental in starting a group that later became known as CASA, Coordinated Action for Senior Adults, Inc. In 1962, she became the first woman to suggest that a State commission on aging be formed. She was also active in planning, promoting, and participating in an Albuquerque senior citizens center.

Miss O'Brien has not confined her community service to efforts on behalf of the elderly. She also works with mentally retarded children and a mobile home newsletter. At 89 years of age, she is still an "activist" in terms of concern for her fellow man.

Until recently, Miss O'Brien managed her own home, and has been living alone since her sister died in 1953. Over the last 5 years her vision has dimmed until she can hardly distinguish between darkness and light. A lesser person would be discouraged but Miss O'Brien hopes to be able to learn braille with the aid of an instructor, giving further evidence of the courage that has always marked her life.

Noting the concern and service Miss

O'Brien has displayed throughout her life, I am sure that all Senators will want to join me in wishing her a very happy 89th birthday and many more years of well-being and opportunity to continue her most important work.

CRIME IN THE METROPOLITAN WASHINGTON AREA

Mr. MATHIAS. Mr. President, on May 12 of this year I held a news conference at which I announced the findings of a study made by the Metropolitan Washington Council of Governments relating to crime in the metropolitan area. The Council found that there in fact existed an "interjurisdictional" nature of crime, that is, criminals will cross political boundaries to commit their criminal acts. They documented what is now referred to as the "Mercury Theory" of crime, a theory which says that if you attack crime geographically rather than concentrating on an offender oriented program, crime will just "spillover" into the next jurisdiction. This made sense to me, after all, if we do not alter the propensities of the criminal, we only assure that he will go elsewhere to commit his acts.

Prince Georges County Executive William Gullett has now joined me in concern over this matter. He recently claimed that "massive law enforcement" in the District was pushing crime into Prince Georges County. On the basis of the council of governments' report he should have a particular concern, for that report found over an 8-month period, 70 percent of those arrested for the crime of robbery in Prince Georges County were residents of the District of Columbia.

I am confident that the more the Federal Government studies this problem, they too will conclude that if we are to decrease crime in America we must attack it on a metropolitan area level. I intend to introduce legislation in the next Congress to achieve this objective. This is not a case of blaming one jurisdiction for the crimes of the other, but rather it is a case of attempting to get the best means of decreasing crime in America.

Mr. President I ask unanimous consent that the complete text of the article describing Mr. Gullett's position as published in the Washington Post on July 7, 1972, be printed in the RECORD.

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

PRINCE GEORGES RISE IN CRIME LAID TO BEEFED-UP DISTRICT OF COLUMBIA POLICE

(By Philip A. McCombs)

Prince George's County Executive William W. Gullett said yesterday that "massive law enforcement" in the District of Columbia "is pushing many criminals into the suburbs to ply their evil trade."

He said 65 per cent of the inmates in the county jail and 40 per cent of those arrested for robbery by county police in the first six months of this year in Prince George's are Washington residents.

"It is obvious that the massive increase in police strength in the District is forcing criminal activity into the suburbs," said Gullett.

Prince George's County police spokesman John Hoxie said he could not supply comparative statistics for the 1968 to 1972 period that would support or disprove Gullett's statement.

It was during this period that the dramatic increase in the D.C. police force from 3,100 to 5,100 men took place, spurred partly by a 1968 campaign commitment by President Nixon to erase Washington's image as "the crime capital of the nation."

The only comparative statistics that Hoxie did supply showed that the percentage of D.C. residents arrested for robbery in Prince George's during 1971 was about 50 per cent, higher than the 1972 figure.

Hoxie said the statistics are "poor indicators" and that "there is no real way to measure spillover" of crime from the District to Prince George's.

Hoxie said 90 per cent of the robberies in Prince George's in 1971 happened inside the Beltway and that this as "an indication (of) spillover and deterioration of neighborhoods inside the Beltway and closer to the District.

James Murray, administrative services officer of the metropolitan police force in the District said he has no way of knowing statistically if Gullett's statement is true.

Jace Herzig, assistant director of public safety for the Council of Governments, a confederation of area governments that studies local problems, said that 70 per cent of those arrested for robbery by Prince George's County police during the seven-month period between October 1971 and April 1972 were D.C. residents.

Hoxie said this figure was better than his own of 40 per cent for the last six months. He said the COG figure was more comprehensive than his own since it included arrests by local police departments as well as those by county police.

Herzig said it is difficult to get meaningful statistics on the spillover problem and that COG is working to do this.

"Prince George's citizens have increasingly become the victims of crime committed by D.C. residents driven out of the city by the wall-to-wall police force being established there," Gullett said in a reply he prepared yesterday to a WRS–TV editorial taking issue with the spillover theory.

Gullett said that while $90 million is being spent on the D.C. police force this year, the 700-member Prince George's force has a $13.4 million budget.

SENATORS AWARDED CITATIONS OF RECOGNITION BY NATIONAL SMALL BUSINESS ASSOCIATION

Mr. GURNEY. Mr. President, recently the National Committee for Small Business Tax Reform, a committee of the National Small Business Association, paid homage to 28 Members of the Senate. These Senators were those who have either introduced small business tax reform legislation or publicly announced their support for it. Each Senator was presented with a citation of recognition by Harry Brinkman, the president of NSB and Edward Larson, chairman of the committee. The citation reads as follows:

NATIONAL SMALL BUSINESS ASSOCIATION

This citation of recognition is conferred upon ——— in appreciation of significant and valued contributions to the American small business community and for sponsorship of small business tax reform legislation during the 92nd Congress of the United States of America. (By: Harry E. Brinkman)

Upon making the award, Chairman Larson had this to say about the Senators:

The forthright action on the part of the Senator in publicly supporting tax simplification and reform for the 16½ million small businessmen in America, and particularly those in his State, deserves the highest recognition. This action should be regarded as the first move in the direction of equitable tax treatment for nineteen of every twenty firms in the United States which are small business.

The Members of the Senate who received the certificates of recognition are: BIRCH BAYH, WALLACE F. BENNETT, ALAN BIBLE, QUENTIN BURDICK, ROBERT J. DOLE, PETER H. DOMINICK, JAMES O. EASTLAND, DAVID GAMBRELL, MIKE GRAVEL, ROBERT P. GRIFFIN, EDWARD J. GURNEY, MARK HATFIELD, HUBERT H. HUMPHREY, B. EVERETT JORDAN, EDWARD M. KENNEDY, GEORGE MCGOVERN, THOMAS J. MCINTYRE, LEE METCALF, JOSEPH M. MONTOYA, FRANK E. MOSS, GAYLORD NELSON, CLAIBORNE PELL, JENNINGS RANDOLPH, RICHARD S. SCHWEIKER, JOHN SPARKMAN, TED STEVENS, JOHN G. TOWER, HARRISON WILLIAMS.

Mr. President, I would hope that Senators who have not placed themselves on record as favoring this legislation would add their names to this roster of their distinguished colleagues.

INFORMATION ON AMERICAN POW'S

Mr. KENNEDY. Mr. President, as I have regularly done since 1966, last May I addressed a letter to the President of North Vietnam in an attempt to secure further information on the identity and treatment of American prisoners of war and missing in action in Indochina.

In late June, in answer to that letter, I received an official North Vietnamese list of American pilots captured and being held in North Vietnam since last November 15, 1970. This list updates an earlier list I received in December 1970. The list of 24 new names was communicated immediately to the Department of State for notification of family members in this country.

The new list represents the latest compilation of names of American pilots being held in North Vietnam. It does not include prisoners of war in other areas of Indochina, but I am extremely hopeful that the identification of prisoners held in Laos, Cambodia, and South Vietnam, will be forthcoming at an early date.

On July 23, I received 24 letters from the prisoners identified on the new list. These letters were addressed to family members in this country. I have informed the Department of State of these letters and have transmitted them to the parents and wives.

Mr. President, although the latest information from Hanoi falls far short of the full accounting of our men, much less their release, it does represent a hopeful measure of progress, especially for the prisoners' families. It is also a

tribute to the strong hope and persistent concern of these families, and all Americans, who pray for peace and the early return of our men from Indochina.

It is incumbent upon all of us to do whatever we can to help secure further information about our prisoners and to work for their release, and I shall continue to do so.

I ask unanimous consent that excerpts from my latest correspondence with the President of North Vietnam be printed in the RECORD.

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

U.S. SENATE,
May 19, 1972.

President TON DUC THANG,
Democratic Republic of Vietnam,
Hanoi, Vietnam

DEAR MR. PRESIDENT: I am writing to you again to appeal for your help in receiving a current list of captured Americans in Indochina. As you know, your Government's official list of United States pilots captured in the Democratic Republic of Vietnam, which accompanied your letter of December 14, 1970, was appreciated by many Americans as a positive step towards reducing the barriers and misunderstandings that divide our two countries. I am sure you understand that the availability of such basic information, as the identity of American personnel held in Indochina, eases the anguish in many hearts, especially among the families of prisoners and missing in action.

As I suggested to you in my letters of March 12 and September 28, 1971, I would hope that the competent services of your Government would be able to facilitate the identification of all American personnel held by your Government and other authorities—such as the National Liberation Front, the United National Front of Kampucheu, and the Neo-Lao Hak Sut—throughout Indochina. My deep personal concern over the identity of all prisoners includes the possible capture of a number of journalists, both American and other nationals.

In addition to appealing for your help in receiving a comprehensive list of all captured Americans in Indochina, I would like to reiterate two earlier proposals for your Government's earnest consideration.

First, I would hope that new arrangements could be made, perhaps through the International Control Commission or another recognized international body, for a regularized and freer flow of mail between all prisoners in Indochina and their families abroad.

Secondly, I would hope that seriously ill and wounded prisoners could be repatriated through a neutral country, such as Sweden, with the understanding that repatriated military personnel would remain in that country until appropriate arrangements are concluded for the release of all prisoners.

In this connection also, Mr. President, I would like to call your Government's attention to recent initiatives by the International Committee of the Red Cross regarding the care and protection of the civilian population in currently difficult battle areas of Indochina. I am extremely hopeful that your Government will give every consideration to these humanitarian initiatives.

In light of our previous correspondence, and in the name of our common humanity, I appeal for you and your Government's sympathetic and early consideration of my letter. I can assure you, Mr. President, that your favorable consideration of modest steps outlined above, would be gratefully welcomed as a meaningul contribution towards peace.

Sincerely,

EDWARD M. KENNEDY.

[Translation]

HANOI,
June 16, 1972.

Hon. E. M. KENNEDY,
Senator,
Massachusetts

DEAR SIR: In reply to your letter of late May, I would like first of all to reaffirm that the Government of the Democratic Republic of Viet Nam has consistently carried out a humane policy towards the U.S. pilots captured in North Viet Nam although they have killed our countrymen and destroyed the fruits of our labour with their bombs.

I know that you have been taking great interest in the fate of the American pilots captured in our country and in the rest of the Indochinese peninsula. Had the present U.S. Administration given a positive response to the reasonable and logical proposals of the Provisional Revolutionary Government of the Republic of South Viet Nam, there would have been long since a possibility not only of bringing home all U.S. servicemen including those captured, but also of ending a war which has caused many losses to our people as well as to the American people. Because of its design to maintain the stooge administration in Saigon to impose a neo-colonialist regime on South Viet Nam, the Nixon Administration has chosen the path of sabotaging the Paris Conference on Viet Nam, stepping up the war of extermination in South Viet Nam, making adventurous and frenzied escalation moves against the Democratic Republic of Viet Nam, thus piling up untold barbarities against the Vietnamese people. However, as long as the United States pursues its aggression, the Vietnamese people will fight on, and defend at any price the independence and freedom of their Fatherland and the South Vietnamese people's right of self-determination. The more the U.S. authorities intensify and extend the war, the deeper the United States will get involved in the Indochina war, and the settlement of the issue of captured U.S. militarymen will be further delayed. U.S. President Nixon must bear full responsibility for all consequences arising from this warlike policy of his.

The peoples of the world and the goodwilled Americans are sternly condemning the new military adventure of the Nixon Administration and firmly demanding that it put an immediate end to the bombing, mining and blockade of the Democratic Republic of Viet Nam, and to the "Vietnamization" policy, stop at once supporting the stooge Nguyen Van Thieu administration; seriously negotiate at the Paris Conference on Viet Nam, give a positive response to the 7 points put forward by the Provisional Revolutionary Government of the Republic of South Viet Nam, and two key questions of which have been elaborated. With their own efforts, with the great support and assistance of their brothers and friends around the world, the Vietnamese people are sure to victoriously defend their sacred national rights.

With regard to the specific problems you have raised, my views are as follows:

The list you have received includes the names of all American pilots captured in North Viet Nam between August 5, 1964, and November 15, 1970. Of course, it has been lengthened since the U.S. authorities intensified the bombing of our country. I have directed the responsible services to give you information about the Americans who have been captured in North Viet Nam since that date. About the intimation of the names of the Americans captured in South Viet Nam, we will exchange views with the Provisional Revolutionary Government of the Republic of South Viet Nam which will take an appropriate decision on this subject.

Regarding the seriously ill and wounded American pilots in North Viet Nam, you may be assured that they have always enjoyed the necessary, timely and effective care of our medical services. You may clearly see this through the humane policy of our Government, through what goodwilled Americans who have been to Hanoi have seen and heard for themselves. Permission to the Americans captured in North Viet Nam to receive mail and medicine from their families through the existing channel is an appropriate humanitarian measure in the present circumstances.

With best regards,

TON DUC THANG,
President, of the Democratic Republic of Viet Nam.

BENEFITS TO ACCRUE FROM ALASKA PIPELINE

Mr. STEVENS. Mr. President, over the past several months I have emphasized the benefits which will accrue to the Nation and the State when Alaska's petroleum reserves are delivered by the Alaska pipeline. One of my key points has been that this privately financed, resource-based endeavor will produce a chain reaction of employment in the primary, secondary, and support industries. The general executive board of the International Union of Operating Engineers, AFL–CIO, recently punctuated this by passing a resolution urging early construction of the pipeline.

Mr. President, I ask unanimous consent that the statement descriptive of this resolution be printed in the RECORD.

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

ALASKA PIPELINE

"Early construction of the Alaska pipeline has been strongly recommended by the General Executive Board of the International Union of Operating Engineers, AFL–CIO, as an essential in reducing unemployment and providing new American job opportunities," General President Hunter P. Wharton announced today.

Wharton said that the project, financed by private capital, would bring employment to 30,000 workers in the construction of the pipeline itself and in related fabrication and service industries.

"If it is built through Alaska, construction of this pipeline also would mean that American Labor, working on American soil, would deliver American oil to American consumers through the use of American-built tankers," Wharton added.

The International Union of Operating Engineers called for an early conclusion of litigation which has delayed construction of the Alaska pipeline. Legal proceedings commenced following the announcement of the U.S. Secretary of the Interior that he is prepared to issue the right-of-way permit.

"It is the opinion of our General Executive Board that the litigation should be expedited and a decision obtained as quickly as possible," Wharton said.

"The new jobs that would be made available would greatly stabilize our entire economy.

"The International Union of Operating Engineers urges the Congress of the United States and all segments of American labor and business to recognize the necessity of initiating a project that contains the stimulus to reduce the rolls of the unemployed and provide new job opportunities for the increasing numbers of our citizens who are seeking work."

FOREIGN FISH PIRATES

Mr. STEVENS. Mr. President, in the debate which preceded the passage of the Marine Mammal Protection Act of 1972, it was pointed out that effective conservation practices had increased the count of ocean mammals since statehood was granted to the State of Alaska. But since half the Nation's coastline is in Alaska and mammal herds numbering in the hundreds of thousands are in Alaska, the inference drawn here was that ocean mammals are being taken in Alaskan waters to the extent that they are in danger of becoming extinct.

This legislation is obviously directed at Americans, and to a large extent those fishing and living in the northern Pacific.

However, reports have reached me of foreign fleets sweeping near Alaska's shores and leaving in their wake decapitated walrus which have washed ashore. I have asked for investigation of these charges.

Mr. President, just this morning, I have been handed photographs taken by the National Marine Fisheries Service which show conclusively that the Japanese fishing vessels are taking ocean mammals within a few miles of our shores.

Dr. Robert White, Administrator of NOAA, I am informed, has personally identified the ocean mammals in these photographs as dolphin and fur seal on the decks of the *Hokutatu Maru*.

There is no question about this, and there is no question that the violations are willful. Another photograph shows a crewmember of one of the ships in the act of throwing a tarp over the bow to obscure the name of the vessel.

Mr. President, no one seriously questions the wisdom of properly managing ocean mammals so that they should not be permitted to diminish below the optimum sustainable population. Yet the legislation enacted here will be inadequate if we do nothing to stop these foreign fish pirates whose reckless forays into our waters are depleting our food supply—and now, incontrovertible evidence shows they are also taking our ocean mammals.

These photographs do not indicate the numbers of ocean mammals taken by the Japanese off the shores of Kodiak; they merely show that the Japanese are taking them when the opportunity is presented. We would have to see into the holds of these ships to be able to find the extent of this plunder.

Mr. President, I ask the support of other Senators in demanding that the State Department inform all foreign nations, whose fleets are fishing off our shores, that it is the intention of the U.S. Senate to see to it that our ocean mammals are protected in one way or another.

A NEW ERA OF EXPLORATION

Mr. SPARKMAN. Mr President, recently a very interesting and informative article written by Howard Benedict, AP aerospace writer, was published in the Birmingham News. This article is entitled "New Era of Exploration—Midcourse Correction for Spaceship Earth." Mr. Benedict looks into the future of the space program and the values to be obtained by continuing an active program in the exploration of space and the utilization of that program for learning more about the earth on which we live.

I commend the reading of the article by everyone. Accordingly, I 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:

[From the Birmingham (Ala.) News, July 16, 1972]

NEW ERA OF EXPLORATION—MIDCOURSE CORRECTION FOR SPACESHIP EARTH

(By Howard Benedict)

CAPE KENNEDY, FLA.—The highly successful Apollo moon-landing program ends this year and America will enter a new era of space exploration, turning attention back to earth with orbiting projects destined to open a cornucopia of benefits to mankind.

Apollo 17 sets sail December 6 with a sophisticated set of new instruments and a geologist aboard to wrestle a few more secrets from the inscrutable moon. After that it may be decades before man again sets foot on the barren lunar surface. The emphasis, in both the United States and Soviet Union, will be on making space work for society on earth—concentrating on better communications, education, weather prediction and control, navigation and air traffic control, monitoring earth's resources and developing new medical and manufacturing processes.

Photographs taken by Apollo astronauts from deep in space helped trigger this trend to look more inward toward the earth than outward toward the stars. The dramatic pictures showed our globe as a tiny, lonely traveler, its ecological system a fragile thing when weighed against the vastness of space.

The shift might be termed, in astronaut parlance, a midcourse correction for spaceship earth.

Within five months after the final Apollo crew comes home, the United States' first space station, Skylab, will be lofted into orbit. Three different three-man crews will spend a total of five months aboard in 1973, setting guidelines for large, permanent stations of the 1980s.

JOINT ORBITAL MISSION

In gestation is the space shuttle, a rocket plane that will operate like an airliner, making countless trips into orbit and opening the portals of space to men and women of many nations and walks of life—from tourist to scientist.

Between Skylab and the shuttle there will be perhaps the most significant flight of all—a joint orbital mission in 1975 by American astronauts and Russian cosmonauts. The impact of this symbolic meeting of Apollo and Soyuz crews can only be speculated on, but it could herald greater cooperation in many fields between the two powers.

In the future, international crews could embark on long missions to Mars, Jupiter or other farflung outposts in the universe.

While man explores new horizons, scientists will be busy for years studying the treasure chests of rocks and wealth of scientific data gathered by Apollo as they seek to unravel the mystery of the origin of the moon, earth and our solar system.

The information collected by five moon-landing crews already has told some wondrous things. It no longer is the same old moon smiling down on us as it did before Apollo. It is a body that has proved full of surprises.

The vision of a cold, dead planet has given way to an amazing variety of geological activity—numerous small moonquakes, heat estimated at more than 800 degrees near the center, ancient volcanoes, a trace of magnetism and the possibility that water vapor is escaping through cracks in the crust.

POINTS OF AGREEMENT

There is general agreement among scientists on these points after evaluating Apollo data:

Mechanisms for evolving life halted on the moon long before even the basic building blocks of life were formed. Hence, there is no life there.

Geologic evolution stopped early on the moon, some three billion years ago. As a result, the moon is frozen at a point of primitive development. A big question is why it suddenly turned off its heat machine and essentially stopped evolving after only a billion years or so.

There are essentially only three types of rocks on the moon, in contrast to hundreds of different types of earth.

There is evidence that volcanoes wracked the moon early in its history, sculpturing valleys, rilles, plains and mountains and indicating it once had a hot, molten interior like the earth's.

The moon is made up of onion-like layers, with a crust about 38 miles thick and a mantle and a core below that, making it more earth-like than many experts believed possible.

Before Apollo, there were three major theories about the origin of the moon: That it was born at the same time as our solar system in the convulsive coming together of space debris and a giant gas cloud; that it once was part of the earth and for some reason broke away, and that it was a wanderer from outer space that got caught in earth's gravity field.

Some scientists have not ruled out any of the theories, but most now feel sure that the moon, earth and other planets in the solar system were created in the massive gas cloud 4.6 billion years ago.

Apollo 17 hopefully will fill in missing chapters in the moon's history. New instruments to be carried may answer such questions as:

Is the moon slowly fashioning an atmosphere and interacting with the solar winds to create building blocks of future life?

Can gravitational waves, pounding across the oceans of space from an early epoch of the universe tell us when time began?

Under the bedrock of the frozen lunar interior are there layers of ice or permafrost that man can tap to make air and water for permanent bases on the moon?

YOUNGER LANDING SITE

On the crew will be the first astronaut-geologist, Dr. Harrison H. Schmitt, who will be able to make on-the-spot evaluations of certain rocks and geological features that might escape the untrained eye. Flying with him will be Navy Capt. Eugene A. Cernan, mission commander, and Navy Cmdr. Ronald E. Evans.

The landing site is a place called Taurus-Littrow in the northeast quadrant of the moon. It is a region of light-colored mountains and dark valleys that may be filled with volcanic ash.

The immediate landing site is believed to be younger than any previous Apollo site, formed perhaps three billion years ago. But within driving distance of the moon car are formations which might date back 4.6 billion years to the birth of the moon.

Because the moon has no atmosphere, or wind or water or living thing, the first billion years of its history has not been eroded away as it has on earth. So if some of the rocks are 4.6 billion years old, scientists may

learn something about the early history of our planet and others. The oldest rocks found on earth are 3.5 billion years old.

Perhaps one of Apollo's greatest contributions was the awareness it gave man of the limitations of his own planet. To see earth as a complete and closed ecological system floating in the blackness of space was an emotional shock to many.

They realized just how fragile earth is, protected from the searing radiation of the sun only by a 400-mile-thick atmosphere. The picture of a marble-like earth relayed by Apollo 8 helped foster a surge in popular interest for a cleaner environment, for better management of natural resources and the preservation of the ecological balance.

The question was raised: Shouldn't we take a substantial portion of the space dollar and devote it to earth-related problems such as pollution and providing for a growing population?

After Apollo 17, Skylab will waste little time pioneering in that direction.

Skylab is a two-story laboratory, with the volume of a medium-size house, which is to be launched unmanned by a Saturn 5 rocket next April 30. The next day, a three-man crew is to be launched in a modified Apollo capsule by a smaller Saturn 1B rocket.

The astronauts will dock with the Skylab 270 miles above the earth and enter it through an airlock. They are to remain aboard 28 days.

A month after they return to earth, a second three-man team will rocket up to the same laboratory, this time for 56 days. After they come home, a third crew will go up, also for 56 days.

TO STUDY EARTH FROM SPACE

The Skylab astronauts will conduct more than 50 different types of experiments aimed at developing techniques for surveying earth's resources from space, determining man's ability to live and work in orbit for long periods, extending solar astronomy beyond earth's dense atmosphere, and experimenting with space manufacturing.

There will be a medical doctor on the first crew, and the second and third groups each will have a solar physicist to operate a giant telescope.

The spacemen will evaluate several sensors designed to locate such things as mineral and oil deposits, arable land, sources of air and water pollution, fishing areas, diseased crops and water resources.

They hope to determine which sensors are best automated and which are best operated by man, leading to future missions intended to locate undiscovered resources and to help develop a global management system to meet a growing worldwide demand for these resources.

The Soviet Union reported cosmonauts conducted similar resources survey experiments on the Salyut space station last year and that it also expected to concentrate its manned space effort in earth orbit for the foreseeable future.

The day when these two space rivals join forces in orbit to help solve problems on earth may not be far off. The first giant step is to be taken in 1975 when spaceships of the two nations are to link up high above the globe.

The agreement for the flight, and several other cooperative space ventures, was signed by President Nixon and Premier Alexei Kosygin during the Moscow summit meeting in May.

A preliminary plan calls for two or three Americans to be launched in a modified Apollo craft into a 170-mile-high orbit. A day or two later, two cosmonauts will be launched in a Soyuz ship.

After a day of rendezvous maneuvers, the two vehicles would execute the historic hookup. For two days, Americans and Russians will transfer between the two ships, using a connecting airlock because of different cabin atmospheres. They'll conduct joint experiments, possibly in earth resources.

The two ships will disengage and for several days conduct separate, perhaps coordinated experiments.

EYE ON POLITICAL CLIMATE

The major motivation for the flight is to test a common docking system being built for both vessels. If it works as expected, all future American and Soviet-manned ships will have this system, enabling a craft from either country to fly to the rescue of a space vehicle in case of trouble.

But officials of both nations also see the flight as a means of improving the political climate on earth and as a symbolic awareness of problems on the planet that can perhaps best be solved by cooperation, eliminating costly duplication.

It is hoped the 1975 mission will lead to an international space laboratory in which several nations would participate.

The National Aeronautics and Space Administration at one time foresaw a 12-man U.S. station in orbit by 1976, gradually enlarging it to 50 to 100 men by launching additional modules.

But this has been delayed indefinitely by NASA budget cuts and the realization that assembling a space station with the present Saturn 5 rocket would be extremely expensive.

With the Saturn 5 it costs more than $1,000 for each pound placed in earth orbit. Because repeated launchings would be required to service a station and to transfer personnel to and from earth, billions of dollars would be needed to support an orbiting lab over a period of years.

So NASA decided to develop the space shuttle, a reusable vehicle that could make 100 or more trips into space before wearing out. The space agency recently won strong congressional backing for this entirely new concept in space transportation.

The shuttle will take off like a rocket, fly in orbit like a spaceship and land back on earth like an airplane. Its two solid fuel rocket boosters also will be reusable after parachuting to earth.

Because it can be used over and over, the shuttle will reduce launch costs sharply, perhaps to less than $75 for each pound orbited. NASA estimates each shuttle launch would cost about $10 million, compared with $445 million for an Apollo moon mission.

END THROWAWAY ROCKETS

The shuttle will be the size of a DC9 airliner and can be flown by two pilots. It can carry up to 65,000 pounds of payload and 12 passengers, who will not have to be well-trained astronauts. Anyone in reasonably good health can make the trip.

The shuttle's first function when it becomes operational late in this decade will be to carry unmanned satellites into desired orbits, eliminating the need for conventional throwaway space rockets. Because men will be aboard to make a final check before ejecting a payload, the satellites will be cheaper to build. And if a payload stops operating, a shuttle crew could fly over to fix it, or return it to earth for repair.

The satellites would be used for communications, navigation, air and sea traffic control, scientific observations and military reconnaissance.

There will be growing emphasis on using satellites to aid education in underdeveloped areas of the globe. An American satellite next year will broadcast educational programs directly to television sets in 5,000 villages in remote areas of India, teaching not only children, but also instructing farmers on crop planting and women on such things as cooking and birth control.

Brazil is planning a direct-broadcast satellite educational TV system that would reach 100,000 schools. The impact of this capability on emerging nations is profound.

The United States has invited foreign nations to participate in the shuttle, providing experiments and scientific and engineering personnel. A group of European nations is considering building separate manned orbiting experiment modules.

NASA's latest traffic model forecasts 721 shuttle launchings between 1979 and 1990, an average of about one a week, NASA missions to be launched from Cape Kennedy total 461; Defense Department missions, most to be launched from Vandenberg Air Force Base, Calif., are 281, and launchings for governmental or commercial agencies 128.

On some of these missions, the shuttle would serve as an interim space station, flying 30-day or more journeys. NASA's permanent space station plans are not firm, depending on what develops on an international basis. But it is hoped a large station of some sort can be orbited by the mid-1980's.

Meteorologists aboard the lab could develop accurate weather forecasting on a worldwide basis, possibly two weeks in advance. This would have an impact estimated at billions of dollars, especially in agriculturally related fields.

With cameras and remote sensing devices, crewmen could locate fish in the ocean, differentiate between sick and healthy crops and trees, spot forest fires, find hidden oil and mineral deposits and new growing land, detect pollution sources, measure soil fertility, predict erosion and monitor water resources.

NEW SOURCES OF ENERGY?

Specialists could conduct long-term research in astronomy, life sciences, space physics, technology and applications.

Astronomers presently are wrestling with some of the most puzzling problems in man's investigation of the universe. Huge radio galaxies, quesars, pulsars and numerous X-ray sources are emitting energies at almost unbelievable rates, suggesting new, powerful modes of energy production.

Just as our knowledge of nuclear energy stemmed from investigations into how the sun produces its radiant energy, perhaps orbiting astronomers can find new sources of energy for use on earth. Our atmosphere blocks out certain radiation wavelengths, making it very difficult to study these powerful radio sources from earth.

One wing of an orbiting station might serve as an experimental hospital. The unique weightless and vacuum conditions could aid in the treatment of those suffering from partial paralysis, burns, heart and blood vessel diseases and other ailments enhanced by atmospheric pressure and gravity on earth.

And the space environment might prove an ideal place to manufacture specialized items such as superstrong materials, perfectly round ball bearings, precision optical lenses and pure vaccines.

NASA and several industrial research organizations are spending more than $1 million a year to study the feasibility of space manufacturing, and there will be extensive tests on Skylab. Some experts predict a $50-billion market by the end of the century. The shuttle then could become delivery truck for carrying up raw materials and returning manufactured items to earth.

Looking to the future, a station could become the jumping off place for international expeditions, to establish large bases on the moon or to fly to the planets with nuclear rockets.

And NASA says the exciting explorations ahead will not cost the taxpayer an arm and a leg. Throughout the shuttle development program during the next six years, the agency's annual budget is expected to stay steady at about $3.4 billion annually—down from Apollo's peak year of $5.9 billion in

1966. That's about one-third of 1 per cent of the nation's gross national product, while Russia spends more than 2 per cent on its space program.

NASA officials note the $3.4-billion figure compares with a Defense Department budget of $73 billion and government social-welfare spending of more than $77 billion this year.

If several nations join to develop a space station, the cost will be shared. And someone other than governments, such as fisheries and farm organizations which use the information, might help pay the bill.

Presently, NASA is spending $16 a year for each person in the United States. Some space officials feel that, even without the benefits expected, the exploration alone might be worth $16—to know that great voyages of discovery are taking place in our time, indeed before our very eyes.

INHUMAN SYPHILIS STUDY MUST BE INVESTIGATED

Mr. BAYH. Mr. President, the recent disclosure in the press of a 40-year Public Health Service experiment which began in 1932 on human guinea pigs in Tuskegee, Ala., to test the effect of syphilis on the human body is sickening and outrageous. The additional fact that the experiment used 600 black men—and only black men—for its experimental and control groups underscores the moral deficiency that has plagued the race relations of this Nation throughout its history.

There are those who will say that the inhuman exploitation of economic and social conditions reflected in the experiment would not be condoned today. I would hope that assumption is correct. But my concern goes beyond that to the devastation of those years of egregious experimentation wrought on the 400 syphilitic men in the study who went untreated, many to suffer death. Imagine, Mr. President, these men were permitted to suffer and die even though a cure for the disease was found 10 years after the experiment began. In addition to the hopeless situation of those men still alive, what toll in human suffering has been taken on their families, friends, and community exposed to the disease over the years? We may never know. But one thing is clear. We owe these men and their families a serious debt. And we owe those millions of Americans who have suffered exploitation the assurance that repetition of any similar circumstances will not be tolerated.

I have written to the Senator from Massachusetts (Mr. KENNEDY), chairman of the Subcommittee on Health, asking that his committee conduct a special hearing to investigate the circumstances surrounding the so-called Tuskegee study, including a complete review of current health experiments which may be morally or ethically questionable. I have asked also that after a review of the facts, the Federal Government award financial compensation to the immediate families of the men, living and dead, who were involved in the experiment, recognizing that no amount of compensation can substitute for the price already paid in human misery.

Mr. President, I ask unanimous consent that the Associated Press story by Jean Heller and my letter to Senator KENNEDY be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

[From the New York Times, July 26, 1972]

SYPHILIS VICTIMS IN U.S. STUDY WENT UNTREATED FOR 40 YEARS

(By Jean Heller)

WASHINGTON, July 25.—For 40 years the United States Public Health Service has conducted a study in which human beings with syphilis, induced to serve as guinea pigs, have gone without medical treatment for the disease and a few have died of its late effects, even though an effective therapy was eventually discovered.

The study was conducted to determine from autopsies what the disease does to the human body.

Officials of the health service who initiated the experiment have long since retired. Current officials, who say they have serious doubts about the morality of the study, also say that it is too late to treat the syphilis in any surviving participants in the study.

Doctors in the service say they are now rendering whatever other medical services they can give to the survivors while the study of the disease's effects continues.

The experiment, called the Tuskegee Study, began in 1932 with about 600 black men, mostly poor and uneducated, from Tuskegee, Ala., an area that had the highest syphilis rate in the nation at the time.

Four hundred of the group had syphilis and never received deliberate treatment for the venereal infection. A control group of 200 had no syphilis and did not receive any specific therapy.

Some subjects were added to the study in its early years to replace men who had dropped out of the program, but the number added is not known. At the beginning of this year 74 of those who received no treatment were still alive.

As incentives to enter the program, the men were promised free transportation to and from hospitals, free hot lunches, free medicine for any disease other than syphilis and free burial after autopsies were performed.

COULD HAVE BEEN HELPED

The Tuskegee Study began 10 years before penicillin was found to be a cure for syphilis and 15 years before the drug became widely available. Yet, even after penicillin became common, and while its use probably could have helped or saved a number of the experiment subjects, the drug was denied them, Dr. J. D. Millar says.

Dr. Miller is chief of the venereal disease branch of the service's Center for Disease Control in Atlanta and is now in charge of what remains of the Tuskegee Study. He said in an interview that he has serious doubts about the program.

Dr. Millar said that "a serious moral problem" arose when penicillin therapy, which can cure syphilis in its early stages, became available in the late nineteen-forties and was withheld from the patients in the syphilis study. Penicillin therapy became, Dr. Millar said, "so much more effective and so much less dangerous" than preexisting therapies.

"The study began when attitudes were much different on treatment and experimentation," Dr. Millar said. "At this point in time, with our current knowledge of treatment and the disease and the revolutionary change in approach to human experimentation, I don't believe the program would be undertaken."

Members of Congress reacted with shock to the disclosure today that the syphilis experimentation on human guinea pigs had taken place.

"A MORAL NIGHTMARE"

Senator William Proxmire, Democrat of Wisconsin, a member of the Senate Appropriations subcommittee that oversees Public Health Service budgets, called the study "a moral and ethical nightmare."

"It's incredible to me that such a thing could ever have happened," he said in a statement. "The Congress should give careful consideration to compensating the families of these men."

Senator Edward M. Kennedy, Democrat of Massachusetts, chairman of the Senate Health Subcommittee, said through a committee spokesman that he deplored the facts of the case and was concerned about whether any other such experiment existed.

Syphilis is a highly contagious infection spread by sexual contact. If untreated, it can cause bone and dental deformations, deafness, blindness, heart disease and deterioration of the central nervous system.

No figures were available as to when the last death in the program occurred. One official said that no conscious effort was apparently made to halt the program after it got under way.

UNCERTAINTY ON DEATHS

A 1969 study of 276 untreated syphilitics who participated in the Tuskegee Study showed that seven had died as a direct result of syphilis. The 1969 study was made by the Atlanta center, whose officials said they could not determine at this late date how many additional deaths had been caused by syphilis.

However, of the 400 men in the original syphilitic group, 154 died of heart disease that officials in Atlanta said was not specifically related to syphillis. Dr. Millar said that this rate was identical with the rate of cardiovascular deaths in the control, or non-syphilis group.

However several years ago an American Medical Association study determined that untreated syphilis reduces life expectancy by 17 per cent in black men between the ages of 25 and 50, a precise description of the Tuskegee Study subjects.

Don Prince, another official in the venereal disease branch of the center, said that the Tuskegee Study had contributed some knowledge about syphilis, particularly that the morbidity and mortality rate among untreated syphilitics was not so high as previously believed.

Dr. Millar said that the study was initiated in 1932 by Dr. J. R. Heller, assistant surgeon general in the service's venereal disease section, who subsequently became division chief.

Of the decision not to give penicillin to the untreated syphilitics once it became widely available, Dr. Millar said, "I doubt that it was a one-man decision. These things seldom are. Whoever was director of the VD section at that time, in 1946 or 1947, would be the most logical candidate if you had to pin it down."

JULY 27, 1972.

Hon. EDWARD M. KENNEDY,
Chairman, Subcommittee on Health, Senate Committee on Labor and Public Welfare, Washington, D.C.

DEAR TED: The recent disclosure of a 40-year Public Health Service syphilis study involving 600 black men in Tuskegee, Alabama has disturbed me greatly.

The fact that the 400 men in the experimental group had syphilis but were not treated even after a cure for the disease was developed is outrageous. But I am very concerned about the overall effect in these men, their families and community during the past forty years.

You have expressed your deep concern about this matter and stated your intention to look further into these disclosures. I would urge you to convene a special hearing of the

Senate Health Subcommittee to investigate the circumstances surrounding the "Tuskegee Study" including a complete review of current experiments which may be morally or ethically questionable.

Additionally I would hope the committee would recommend financial compensation for the immediate families of the men, living and dead, who were involved in the experiment.

Best regards,
Sincerely,

BIRCH BAYH,
U.S. Senator.

DELTA COMMUNITY HOSPITAL AND HEALTH CENTER, MOUND BAYOU, MISS.

Mr. KENNEDY. Mr. President, the Delta Community Hospital and Health Center in Mound Bayou, Miss. is in a state of emergency. Established in 1966, under the auspices of Tufts University, Medford, Mass., in accordance with the comprehensive health services amendment to the Equal Opportunity Act of 1967, the Delta Community Hospital and Health Center has effectively and successfully served the medical needs of more than 127,000 poor people in the delta. The center was and remains, the only health facility in the area that provides free health care to thousands of poor, sick Mississippians.

The Office of Economic Opportunity has, for a number of years, funded the Delta Health Center. An annual operational stipend of $5.5 million has been renewed for several years.

This year Governor Waller, of Mississippi, has vetoed the $5.5 million Office of Economic Opportunity grant. It is Governor Waller's contention that funds for this program must be payed directly to his office, and later rechanneled to Delta by the State Human Resources Commission.

Delta Community Hospital and Health Center is fighting for its life. If Governor Waller refuses to yield in his position, the delta health facility faces extinction. The consequences of such an event, are obvious; medical care in the delta area will be eliminated for thousands of needy poor people.

I feel that the problems of the Delta Community Hospital and Health Center strike at the very core of America's failure to provide adequate health service to many Americans.

I urge Senators to read the following editorials on the Delta Community Hospital and Health Center that appeared both in the Washington Post and the New York Times newspapers. These statements deserve the attention of every Member of this Senate. Accordingly, I ask unanimous consent to have printed in the RECORD the Washington Post article entitled "Health Care in Mississippi," dated July 18, 1972, and the New York Times article entitled "Political Dispute Perils Funds for Mississippi Health Facility," dated July 17, 1972.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

[From the Washington Post, July 18, 1972]

HEALTH CARE IN MISSISSIPPI

Mound Bayou, Mississippi, is an all-black town of 2,200 in Bolivar County in the Delta. In Mound Bayou and the outlying area, poverty has been as intense as in any other rural area in the South or the country. Malnutrition is common, along with joblessness, poor schools and the inevitable depression of spirit. What distinguishes Mound Bayou from other Deep South small towns is its health program. Since 1966, the federal Office of Economic Opportunity has provided funds for medical services that covered a four-county area that has 127,000 poor citizens out of a 200,000 population. The program has had rough spots but overall it has been run with skill and enthusiasm. More important, it has brought medical diagnosis and treatment to people who rarely or never had either before.

The Mound Bayou health program is now threatened by Mississippi politics—old style. On June 1, Gov. William L. Waller vetoed a $5.5 million grant from OEO for another year of operation. Political interference via the veto is an old knife in the back of successful poverty programs, and more than one wily governor has wielded it with a view to destroying an operation he didn't like. Fortunately, the law allows vetoes to be overridden by OEO. The agency has done so on several occasions, some of which required considerable courage in bucking the local establishment. At the moment, OEO officials are deciding whether to side with Governor Waller or with the Delta poor. That OEO is hesitating on what should be an automatic and quick choice suggests that an internal debate is going on within the agency and among its political overseers in the White House. This is not surprising when you recall the intrigues and deals that occurred when Gov. Ronald Reagon butted in to veto a California legal aid program two years ago.

Clearly, the Mound Bayou program deserves to be financed and it deserves to be run by the black community in the area. The sick and poor are not the only beneficiaries. Over five years, some $20 million has come into the area, meaning that not only have jobs been created but that local merchants are doing more business because the workers have money to spend. Thus, in vetoing the health program, Governor Waller also put a veto on many white businessmen who are benefiting also. This last point should not have to be a major influence on OEO's decision: the case for the poor is persuasive enough.

[From the New York Times, July 17, 1972]

POLITICAL DISPUTE PERILS FUNDS FOR MISSISSIPPI HEALTH FACILITY

(By Roy Reed)

MOUND BAYOU, MISS., July 15.—A political dispute over $5.5-million is threatening the existence of a widely acclaimed Government health program for the poor in this all-black Delta town of 2,200 persons.

A hospital and an outpatient clinic that treat a few hundred poor people every day are running out of vital medicines because the institutions are out of money.

Their 468 employees have worked without pay for several weeks and some have joined the patients on the welfare rolls.

The black residents of northern Bolivar County, 90 per cent of whom are medically indigent by Government standards, are increasingly fearful that a program that has brought them hope and better health might soon end.

"SOME WILL DIE"

Dr. Thomas Gualtieri, the 28-year-old white medical director of the Delta Community Hospital and Health Center, said: "Unless we get some help in the next week or two, we'll have to cut medical services drastically. People will not get medicine. Some will get sick, some will die. We're not dealing with staff members losing their jobs or the economic impact on the community. We are in fact talking about deaths."

There were indications yesterday that Federal officials who oversee the program will step into the dispute decisively during the next few days after several weeks of standing back to let state and local officials fight it out.

The dispute began June 1 when Gov. William L. Waller vetoed a $5.5-million grant from the Federal Office of Economic Opportunity to finance for another year a program of health services that reaches from here into four Mississippi Delta counties.

The Federal agency for five years has supported two institutions that provide those services. The two merged this spring at the agency's insistence.

The new single institution is the Delta Community Hospital and Health Center, Inc. It operates a 51-bed hospital that was known as the Mound Bayou Community Hospital and an outpatient facility that was established a few years ago by Tufts University and was known as the Tufts Delta Health Center.

BOARD MOSTLY BLACK

The merged institution is governed by a board most of whose members are Delta blacks. Some leaders on the board and in the administration have been active in civil rights and other antipoverty programs and have incurred the hostility of many Mississippi whites.

Governor Waller, who has been publicized in some places as a racial moderate, said he had vetoed the grant because the Mound Bayou facility had failed to meet certain state requirements in renovating its buildings, because the two merged institutions duplicated some services and because he was concerned over the legal status of the new board.

It has developed since then that those reasons might have been less important than a fourth unstated one. Mr. Waller is trying to organize a new governing board to run the Mound Bayou facilities, one that would operate under state government control and that presumably would get rid of some of the present black leaders.

The Office of Economic Opportunity has the power to override the Governor's veto. It has not done so, although Federal officials and important Mississippi Republicans hint that it might soon.

Dr. E. Leon Cooper, director of health affairs for O.E.O., has asked Mr. Waller to reconsider his veto. He said in a telephone interview yesterday that direct funding of the program through the Governor's office, as state officials have indicated they would prefer, would not be acceptable to the O.E.O. without assurances that the people now running the program would be involved. He said his agency would decide during the next few days whether to override Mr. Waller.

Owen H. Brooks of Greenville, chairman of the board of the newly merged facility, and Richard Polk, its project director, have charged that Mr. Waller's veto was still standing because the Nixon Administration was courting the Democratic Governor and trying to persuade him to become a Republican to help insure Mr. Nixon's carrying Mississippi in the November election. Mr. Waller has hinted that he might support Mr. Nixon.

Republican officials and spokesmen for the Governor deny the charge. One prominent Mississippi Republican who asked not to be identified said of Mr. Waller and the election, "Everybody knows we don't need him." Mr. Nixon is expected to carry Mississippi easily unless Gov. George C. Wallace of Alabama enters the race on a third party ticket.

Federal and state officials announced a few days ago that the Office of Economic Opportunity would send a special grant of $1.3-million to the beleaguered Mound Bayou board to pay its accumulating debts and operate the present program until the end of this month. Mr. Waller at first said he had approved the temporary grant.

SMALLER GRANT SNAGGED

But even this small grant is now snagged. Mr. Polk said yesterday that his office had never received the money. And in Washington Dr. Cooper said that he had not received the Governor's letter approving the money, even though state officials had insisted as late as Wednesday that the Governor had sent it to him.

Charles McKellar, Mr. Waller's press secretary, said yesterday that he did not know where the letter was or whether it had been mailed. He added that the Governor was displeased by certain unnamed conditions that had been written into the temporary grant.

Mr. McKellar also denied that Mr. Waller had any intention of trying to control the Mound Bayou program. It is true that he is trying to organize a new board, Mr. McKellar said, but Mr. Waller wants "the black members of the community" to control it.

State officials have encouraged black residents of Mound Bayou who oppose the present leaders of the health facility to help form the new board. Those residents were described derisively by one of the health facility's leaders as "the Governor's colored folks."

AIR DISASTER RECOVERY OPERATIONS IN REMOTE AREAS

Mr. STEVENS. Mr. President, the FBI Law Enforcement Bulletin for June 1972 contains an article entitled "Air Disaster Recovery Operations in Remote Areas," written by the Honorable Emery W. Chapple, Jr., Commissioner of the Alaska Department of Public Safety. This is a most informative article which describes the recovery operations which occurred in connection with the 1971 crash of an Alaska Airlines jetliner near Juneau. The article is most interesting and enlightening regarding the problems of recovery operations in general, particularly such operations in remote areas. This tragedy took the lives of 104 passengers and seven crew members abroad. The crash occurred at the apex of a 2,400-foot steep ridge and consequently wreckage was strewed over an area of approximately 1,200 feet. Indeed, much special equipment, including helicopters, slings, and nets, was necessary to recover the crash wreckage strewn over the mountainside.

Three important lessons can be gained from an analysis of this recovery operation. The need for a clear disaster plan, communications equipment, and an available volunteer force are all elements which are needed for a successful recovery operation.

Mr. President, the various members of the Alaska Department of Public Safety, the Alaska National Guard, the Alaska Disaster Office, the U.S. Forest Service, and the various other Alaskans involved in this recovery operation are to be commended for their great effort and dedication. Many other areas of the country will be interested in hearing about this unusual event because of the difficulties which had to be overcome. Therefore, I ask that this article be printed in the RECORD.

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

AIR DISASTER RECOVERY OPERATIONS IN REMOTE AREAS

It was 12:08 p.m., September 4, 1971. Alaska Airlines 727 jet airliner flight 1866, with 104 passengers and seven crewmembers aboard, reported approximately 20 miles to the west that it was inbound for a landing at the Juneau Airport. Following this message bleak silence was monitored on the communications network.

Six minutes later the Juneau tower queried Anchorage air control as to the location of Alaska Airlines flight 1866. Other than the information which Juneau had already received, Anchorage did not know the location.

Silence greeted repeated queries by the towermen as they sought to contact the missing aircraft, and it grew more ominous with each passing minute. Search procedures were initiated at 12:25 p.m. The U.S. Coast Guard were notified of an overdue aircraft at 12:38 p.m., and the Alaska Department of Public Safety was notified at 12:50 p.m.

The department of public safety is authorized under chapter 57 of the State code to initiate and coordinate relief and rescue parties concerning lost persons. In relation to an air crash, this authorization includes expediting treatment of the injured, securing the crash scene, insuring the most effective investigation of the accident, and removing the victims of the disaster.

The dispatcher at the department of public safety headquarters in Juneau immediately invoked the department's aircraft disaster plan. Department officials were notified. The Alaska Disaster Office, Alaska National Guard, Juneau Police Department, Juneau Volunteer Fire Department, U.S. Forest Service, district attorney's office, the local hospital, and the medical community were alerted. All State troopers in southeast Alaska were put on call pending the result of the search for the missing plane.

A sergeant of the Alaska State Troopers (AST) at Juneau reported to the private heliport at 3 p.m. Three private helicopters and one Coast Guard helicopter were engaged to participate in the search for the plane. The sergeant supplied each helicopter and the private helicopter office with portable radios which he carried. This allowed instant communication between the searching helicopters and public safety headquarters in Juneau. The sergeant was accompanied by a helicopter pilot and a pilot with Alaska Airlines who was familiar with the flight path of the airlines.

These three men flew westward and proceeded to search an area along the west side of Lynn Canal, a portion of the southeast inland waterway which extends 90 miles farther north to Skagway and was the route of the famous gold rush of 1897 and 1898.

The helicopters made a positive sighting of the wreckage of the downed jetliner 18.5 miles from the Juneau Airport at 4:45 p.m. The sergeant was with the first men to arrive at the crash site. He determined that none of the passengers were alive and advised headquarters that the accident would be a recovery rather than a rescue. He noted that ropes would be needed in the recovery operation as the plane had slammed into the apex of a 2,400-foot steep ridge, apparently hit it a glancing blow, and then skipped over the crest of the ridge and broke into small pieces on the other side. Bodies and wreckage were strewn over an area of approximately 1,200 feet. The slopes of the mountain were too precipitous to land recovery helicopters, and the men would have to use slings and nets for hoisting bodies, personal effects, and equipment from the airliner.

COORDINATED RESPONSE

Just prior to the location of the crash, State troopers called in an emergency medical technician, a trained and equipped disaster team, and equipment from the training academy in Sitka. After the site was located, additional troopers were flown to Juneau via National Guard airplane from division headquarters in Anchorage and from other locations in the State. The U.S. Coast Guard offered the services of the cutter *Sweetbriar*. National Guardsmen and members of the Juneau Rescue Council were called in on the recovery. The State disaster office contributed its services in coordinating activities throughout the State.

Four State troopers and one member of the Juneau Police Department were placed on top of the ridge to secure the crash site the first night. Need for tents and foul weather gear gave rise to calling local sporting goods stores to obtain various types of gear. In one instance, an owner gave the police the key to his store and told them to take what they needed and mark the items down as they went along.

Winds of 50 knots swept the ridge, and rain and snow squalls made the night uncomfortable. Ponchos hurriedly obtained from the Army were ineffective in the high winds, and closer fitting rain pants and jackets were eventually obtained to replace the ponchos. Team leaders found that 2 days on the ridge was about all a man could take without getting a hot meal and a change of clothes to dry out.

The difficulty of camping on the ridge made it necessary to establish a base camp in a more suitable location. This was set up on a small peninsula 5 miles to the east, next to the beach on Lynn Canal. This location allowed space for helicopters to land and was near enough to deep water for fixed-wing float planes to land. The *Sweetbriar* anchored off this point the following morning and supplied beachcraft which landed the bulk of the recovery party and supplies. The *Sweetbriar* also acted as a picket boat in watching for helicopters which might get into trouble while shuttling between the crash site and Juneau.

Department of public safety personnel were assigned to coordinate base camp, airport, and Juneau office activities; and six dispatchers and two clerks were called in to assist at headquarters.

LEADERSHIP AND ORGANIZATION

The morning following the crash, Capt. William Nix of the Alaska State Troopers was placed in charge of coordinating all activities at the crash site. He organized recovery teams, named team leaders, and equipped them with portable radios. Cloth tapes were used to divide the site into three lanes. In some areas the lanes were so steep mountain climbers were called in to string ropes to enable recovery and investigative teams to have access to all parts of the zones blocked off by Captain Nix and his crew. Team leaders were told to impress upon their crews that nothing should be moved until authorized.

Since a large number of bears had been seen in the vicinity of the crash, a number of men wore sidearms and carried high-powered rifles. In one instance a helicopter was used to scare a bear out of the area.

Recovery crew personnel assigned each corpse a number. This identification, represented by black writing on waterproof white paper, was attached to the body. Later it was determined that white numbers on black paper would have been more effective for photographing in an area of rocks and snow.

Each body was plotted on a sketch map made of the lane in which the body was found, and if an easily identifiable characteristic was evident, it was written on the map next to the number given to the body. Yellow tapes were used to mark bodies and portions of bodies. Orange tapes were used to mark personal belongings. Hands of the victims were covered with plastic bags to preserve fingerprints.

Photographs of each body were taken, and overall photographs of each lane in relationship to the wreckage of the aircraft were shot by a State trooper and a member of the National Transportation Safety Board (NTSB). Twenty AST photographs ruined by

inclement weather conditions were replaced with duplicates taken by the NTSB man. This incident pointed up the need for more than one set of photographs as well as the advantage of shooting a video tape if possible.

The recovery crews worked constantly and by September 7 had located, numbered, plotted, and photographed all 111 victims of the crash. The next day the victims along with personal belongings were placed in body bags and flown to the temporary camps on the top of the ridge. Here they were either loaded three at a time in cargo nets or strung out on a rope slung from the helicopter and flown to the base camp for transshipment to the National Guard Armory in Juneau. High winds and poor visibility created difficult flying conditions for the pilots.

LOGISTICS

In the meantime fixed-wing aircraft were employed to carry supplies for the beach camp and for relay to the crash site. Supplies were dispatched as needed by the supply section of the department of public safety. A supply depot was set up and administered for this purpose by the Juneau Fire Department at the Juneau Airport.

Two National Guard cooks were dispatched to provide hot meals at the base camp, and relays of men were sent to the mountain camp to relieve those men who were on the ridge for more than 48 hours. In a couple of instances, for more than a day no helicopter could reach the camp because of the weather.

A continuous shuttle was employed to carry various agency members to the scene of the crash. Reporters were asked to pool four men for a flight to the crash area.

Tight security was maintained from the beginning to keep curious onlookers away from the crash scene; to protect the bodies of the crash victims from marauding wolves, bears, wolverines, and other scavengers; and to make sure the crash site was maintained in an orderly manner. Because of the remote wilderness location of the crash, security precautions were easily carried out, though even here, four men were goat hunting within half a mile of the crash location and had actually heard the crash! These men tipped off initial search helicopters as to the location of the crash.

A morgue was set up in the National Guard Armory. A four-man team of the FBI's Disaster Squad flown in from Washington, D.C., assisted by FBI Agents from the Anchorage office, two Alaska Department of Public Safety fingerprint men as well as local dentists and doctors, joined in the identification process. Refrigerator vans were driven to the armory and used to encase crash victims when identification specialists were not working on them. It took 17 days from the day of the crash until all bodies were identified. Fifty bodies were identified from fingerprints; 29 from body and pathological review; and the rest by personal belongings, clothing, and photo identification.

As each body was identified, morticians processed and placed it in a clean body bag. All personal effects were sterilized before being sent to next of kin. Body bags were placed in caskets with transit burial permits attached to the outside. Next-of-kin contacts were advised to send a telegram in care of the district court as to the destination of the remains.

By September 21, all bodies had been identified and shipped to next of kin.

OBSERVATIONS

In summary, many aspects of the Alaska Airlines crash were somewhat unique in comparison with air accidents in more populated areas. Besides the problem of locating the crash site, Alaska State Troopers overcame numerous other difficulties. These included: transporting recovery parties where there was no road, with 15 miles of water and 5 miles of rugged mountains to traverse before reaching the site; establishing base camps for recovery teams; supplying the men working at the crash site and the base camp; gridding-out the site in precipitous terrain; locating and recovering bodies from sheer cliffs and canyons; and transporting the dead from the accident area.

Since all operations have to be expedited in a crash situation, the department of public safety came up with several observations based on its experiences dealing with the Alaska Airlines disaster:

The need for a disaster plan is readily evident. By using a plan which had previously been drawn up, the department of public safety conducted the search and recovery operation with a minimum of confusion.

Communications are of paramount importance. Radio contact should be readily available between headquarters, search personnel, and rescue and recovery crews at the crash site. Portable communication equipment is an absolute necessity.

Camping equipment and supplies should be stored in a strategic location and be immediately available to support at least a five-man team. Supplies should include food, clothing, shelter, and necessary accessory items, such as nylon ropes, hunting knives, ice axes, portable stoves, portable powerplant, candles, sleds, bolt-cutters, air mattresses, and so on.

A list of business establishments and their owner's telephone numbers, both at home and at work, should be maintained for use in obtaining supplies during emergencies. Men on the dispatch desk should know where to contact such people, particularly on holidays.

Primary consideration should be given during the year to establishing and improving liaison between the department of public safety and other units likely to participate in disaster operations. These include military and disaster units, local police and fire departments, hospitals, search and rescue organizations, fingerprint experts, dentists and doctors, coroners and morticians, and the district attorney's office. Dispatchers should be familiar with whom to call and where such individuals can be located at all times.

Assignment of duty is an important factor in a disaster situation. There will always be personnel on leave, ill, in transfer, and so forth. Administrative personnel should know who the "back-up" men are for various assignments. For example, if a crash site team leader is going to be away, his replacement should be notified before he leaves. The importance of this procedure cannot be overemphasized. Considerable confusion and inefficiency can be avoided through prompt and proper assignments. This holds true for every function in a disaster situation.

The crash site coordinator for the Alaska State Troopers arranged to have team leaders wear one color hard hat and assistants to wear another color hat. This plan facilitated liaison between the coordinator and his men and the teams of various agencies, such as the Federal Aviation Administration (FAA), NTSB, FBI, and U.S. Postal Service, conducting investigations of the crash site.

A video tape of the crash site should be made as soon as possible after it is discovered.

An information officer should be named. He is invaluable in taking care of the needs of the news media and answering the deluge of queries that come in by letter and phone.

At the crash site recovery teams should be assigned one section to work and should concentrate, where practical, in that one area.

Each team leader should have a portable radio.

A doctor should be assigned to the crash site and remain there until the teams leave the area.

Newsmen should be asked to refrain from publishing any photograph of a crash site in which the appearance of recovery personnel and their procedures might be misinterpreted. The reason for this is obvious: Many people would be offended by a picture—having nothing to do in fact with the disaster—which suggested anything other than the grim solemnity expected at such a scene.

Disasters create complex organizational problems and severe manpower strains for almost all law enforcement agencies. Many of the pitfalls and shortcomings that develop during the law enforcement response to these tragedies can be avoided by thoughtful planning beforehand. To assist in drawing up your disaster plan, we will be pleased to send a copy of ours to any interested law enforcement agency. Requests should be addressed to Commissioner, Department of Public Safety, State of Alaska, Pouch N, State Capitol, Juneau, Alaska 99801.

THE NEED FOR REFORM OF OUR CRIMINAL JUSTICE SYSTEM

Mr. PERCY. Mr. President, on February 17, I introduced S. 3185, along with Senators BROCK and MONTOYA. On June 6 of this year, I introduced S. 3674. Both of these bills are designed to help resolve some of the problems which plague our criminal justice system. Because of the urgency of this matter, I was quite pleased when the National Penitentiaries Subcommittee, chaired by my distinguished colleagues Senator QUENTIN BURDICK, announced that hearings would be held on these and other similar bills which attempt to deal with the problems of our system of criminal justice.

These hearings have been underway for 3 days and have concluded today. The subcommittee has heard many witnesses who have contributed to the understanding of the problems and the solutions that we must consider.

Mr. President, I had the privilege of testifying this morning before the subcommittee, and I ask unanimous consent that the full text of my remarks, along with a GAO report that was prepared for me, be printed in the RECORD at this point.

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

STATEMENT BY SENATOR CHARLES H. PERCY BEFORE THE NATIONAL PENITENTIARIES SUBCOMMITTEE ON S. 3185 AND S. 3674, JULY 27, 1972

Mr. Chairman, let me first say how pleased I am to be able to testify today before this very distinguished subcommittee. I want to compliment the Subcommittee, and its distinguished chairman, Senator Burdick, for holding such prompt and indepth hearings on the bills which have been the subject of testimony these last three days.

I will limit my testimony to S. 3185, which I introduced on February 17, 1972, with Senators Brock and Montoya, and S. 3674, which I introduced on June 6 of this year.

The "criminal justice system" is a phrase used widely today to describe broadly the goal and apparatus of our police, our courts and our prisons. The goal is justice and protection from crime for the victim, and fairness and rehabilitation for the offender. To accomplish the goal we try to employ a system of coordinated, interdependent effort between the police, courts and prisons. In my judgment, however, this so called criminal justice system neither dispenses justice nor even vaguely resembles a system.

As a measure of the success of our attempt to control crime, crime statistics compiled over the past twelve years indicate our efforts have been wholly inadequate. While our population rose 13.3%, between 1960 and 1970, violent crime rose 142% and property crime rose 161%. But these estimates themselves are probably low since a number of important factors are excluded such as embezzlement, tax fraud and price-fixing—the "white collar" crimes.[1] They are also limited to reported crimes. The National Opinion Research Center estimates that the rate for violent crimes in 1965–66 was almost double that actually reported, forcible rapes almost four times the rate reported, and burglary more than three times the rate reported.[2]

Furthermore, only one out of every seventy reported crimes may result in an individual being charged, convicted, sentenced and incarcerated.[3] Those who are sentenced also reveal how much of a failure our efforts have been. About 80% of all felonies are committed by repeaters, and about two thirds of all prison inmates have been in prison previously.[4]

There have been efforts to reform the system, but too often these efforts have been haphazard and piecemeal. Attention may be focused on one aspect of the system but another equally important and vitally related aspect may be completely ignored. A good example involves the Court Reform and Criminal Procedures Act of 1970, referred to popularly as the D.C. Crime Bill (PL 91–358). While modernizing courtroom management procedures, the bill left the other parts of the system virtually unable to cope with the inevitable result of the new procedures—a massive influx of new cases.

In hearings before the Senate Subcommittee on Business, Commerce and the Judiciary of the Committee on the District of Columbia on June 16, 1971, the consequences were described dramatically. Because of the new procedures in the Act, an increase in prosecutions was anticipated, from 2,150 in 1970 to 3,700 in 1972, and to an estimated 5,200 in 1973. This in turn is expected to cause an increase in the overall number of offenders committed to the D.C. Department of Corrections from some 3,972 in September of 1970 to an estimated 5,258 by the end of June, 1972.

But facilities have not expanded to meet the need. The Department of Corrections is now seriously contemplating the use of 10 railroad cars in which to house 200 inmates to help relieve the severe overcrowding in local prisons.[5]

At the federal level, the crisis is no less severe. Perhaps no better example of a completely overburdened system exists than the U.S. Board of Parole. With a membership of eight along with eight hearing examiners, the Board had authority over 20,687 prisoners in fiscal year 1970. In that year, the Board made 17,453 official decisions, each requiring the concurrence of at least two members. Thus, there were actually close to 35,000 individual decisions made by these eight men. In addition, the members and examiners conducted 11,784 personal hearings in prisons.[6]

Were the Board members to have the patience of Job and the wisdom of Solomon, they still could not make 35,000 individual decisions in one year with anything approaching the care and close personel attention that the needs of society demand. Yet, this is what they are forced to do each year.

At the operational level, the burdens are also overwhelming. 640 federal probation officers supervise 45,177 people, an average of 71 per officer, twice the recommended level of 35. In large metropolitan areas, the caseload is over 100 per officer.

That the criminal justice system is a failure is not a new conclusion. Everyone from the President and the Chief Justice on down has pointed to the stunning failure of the system to serve and to protect society. President Nixon pointed out that "The various stages of rehabilitation are often poorly coordinated at present. The offender cannot proceed in an orderly manner from confinement to work release to release under supervision and finally to an unsupervised release. The unification of the various programs involved could bring to this process the coordination and sense of progression it badly needs."[7]

Fortunately, we have not been lacking in those who are willing to offer some new ideas as well as condemnations. Since 1967, four presidential commissions, dozens of legislative reports and more than 500 books and articles have recommended reforms of our correctional system.[8] Thorough reforms have been recommended as far back as the Wickersham Commission Report in 1929–1931, but virtually nothing has resulted in positive steps to remake the system in a total and complete fashion.

I am not an expert in the area of criminal justice. My background is in business, and in the years I have been in the Senate, I have tried to look at the operations of the government from a common-sense point of view. Where a problem exists, a solution should be found; where the solution exists, it should be implemented. The President has given me the responsibility of introducing and managing four major Executive Reorganization bills which are now pending before the Congress.[9] It seems to me to be entirely consistent to continue this effort to reorganize the government in other areas where it is desperately needed. Certainly, there is such a need in the criminal justice system.

For these reasons, I introduced the Federal Corrections Reorganization Act, S. 3185, on February 17, 1972. This bill is an attempt on my part to reorganize those parts of the system of justice on the federal level which have failed us in the past. The bill provides a new structure which will incorporate many suggestions that have been made, but which have never been fully implemented. The major new reform is the structure that would be established. The new programs that would be provided have been suggested and tested by some of the most respected people in the field of criminal justice. As President Nixon observed, however, in his address at Williamsburg on March 11, 1971, " 'reform' as an abstraction is something that everybody is for, but reform as a specific is something that a lot of people are against."

I have found this to be true concerning prison reform. I have received much favorable comment on the bill, and everyone agrees that something should be done, yet many people are reluctant to discard the present system. I hope that through these hearings, we will all benefit from the critical comment that I hope tc receive. I might add that I have redrafted this bill several times based on comments received. I originally introduced it not so much because I considered it to be the final solution to the problems of the criminal justice system, (because it is not) but because I felt that it was necessary to put a new idea on paper so that it could generate thought, comment, and hopefully, some results.

I will analyze the bill in the following pages: how it changes the current system; the new organization it would create; the new programs that it would encourage; and the results I believe it could achieve. It should be kept in mind that this bill is an organizational bill. We are all certainly cognizant of the need to deal with the problems that foster and promote crime, and our efforts in this regard should continue unabated. But while we are working on these long-term problems, we should not ignore the problems presented by the failings of the system which should be redesigned to deal effectively with our daily problems involving crime.

TITLE 1—FEDERAL CORRECTIONS ADVISORY COUNCIL

18 USC 5002 authorizes the creation of an "Advisory Corrections Council." Established in law in 1950, the purpose of the Council was to "improve the administration of criminal justice and assure the coordination and integration of policies respecting the disposition, treatment, and correction of all persons convicted of offenses against the United States. It shall also consider measures to promote the prevention of crime and delinquency, (and) suggest appropriate studies in this connection to be undertaken by agencies both public and private." On paper, this Council sounded like a great idea. Unfortunately, however, it has remained only on paper for the last several years. While our crime rate has been skyrocketing and our system of justice has been staggering, the Advisory Corrections Council has not met for at least the last five years. No one is exactly sure the last time the members of the Council got together.

The role that Council is designated by Statute to fill is an important one. Yet, today that role is not being adequately filled. In another organizational effort, in response to President Nixon's memorandum of November 13, 1969, the Inter-Agency Council on Corrections was established within the Executive branch of the government. According to its Director, Norman Carlson, this Council has three goals;

(1) Develop recommendations for national policies and priorities in corrections.

(2) Develop strategies and mechanisms to implement national corrections policies and priorities.

(3) Develop methods of maintaining closer coordination between federal agencies, private industry, labor, and state and local jurisdictions in an endeavor to develop better tools as aids in the correction of the offender.[10]

I think that these are fine ideas, but more is needed. Certainly there is a great need for coordination within the government in this area. It is the responsibility of Congress to take the initiative, and build on the present foundation to try to bring some order out of the chaos that now exists in our criminal justice system.

To illustrate how pressing this problem is, let me relate one experience that I had in this matter. I was interested to know exactly how much money was being spent by the federal government in programs designed to benefit the criminal offender. This should not be such a complicated task. However, I found that no one knew who was spending how much and for what. No one knew. Consequently, on October 28, 1971, I requested the Comptroller General of the United States to initiate an investigation in an attempt to answer this simple question. The efficiency of the General Accounting Office is well known, yet despite its efficiency, it took more than half a year for GAO to get the information. Seven months later, on May 17, 1972, I received the report of the Comptroller General. He had been able to identify 11 different federal departments and agencies which were conductmg programs designed to help rehabilitate the criminal offender, programs that together were costing the government $192 million a year.[11]

The programs that the report identified were all worthwhile projects, but that is not the point. The point is that no one knew what the government as a whole was doing. There was no coordination among these programs. We were spending close to $200 million a year in such a totally uncoordinated manner that it took more than a half of a year just to find the programs. If a business were to operate this way, it would be bankrupt.

Footnotes at end of article.

The result of this inquiry, I believe, presents dramatic evidence for the need to have a coordinating body to keep track of all the various government activities in this area, as well as the developments in the private sector, and to be able to recommend further steps to the government. I believe that the Federal Corrections Advisory Council, established in Title I of S. 3185 can be such a coordinating body.

The membership of the Council needs to be diverse and professional. It should be grounded in practicality and academia. The Council as I now propose it would have as its members, two former federal prisoners, two criminologists, an attorney, a former or retired federal judge, two law enforcement officials, two sociologists, two psychologists, one person representing the communications media, and one person who has some knowledge and interest in this area, but who may not fit into any particular category. In addition, various officials of the government would serve as ex-officio members of the Council.

The Council would have three main purposes:

(1) to exercise an investigative and advisory role in the oversight and direction of the federal corrections system;

(2) to recommend standards and guidelines for States to meet in order for them to be eligible to receive grants under any Federal program involving state law enforcement and correctional agencies, including the reorganization of their criminal justice system in a manner consistent with the rest of the bill; and

(3) to serve as a clearinghouse for study, planning and dissemination of information in the field of corrections.

The Council would establish a study center at which information could be collected and disseminated. It would sponsor seminars for judges, attorneys, correctional officers, and all the other people who are part of the criminal justice system in order for them to become more aware of how they fit together as a system. Out of such a structure would emerge new ideas and suggestions on how the system might operate in a more efficient manner. Specifically, the Council would recommend a complete reorganization of our federal correctional facilities in order to give more flexibility to the disposition of cases that come into the criminal justice system.

I envision this body as a group of people who meet regularly and examine the workings of the system from many vantage points. Each year, it would issue a report to each of the three branches of our government, recommending what each of them should do in order to keep the system of justice operating at peak efficiency while at the same time guaranteeing justice and safety for all members of society.

Groups such as the Vera Institute of Justice in New York and the EXCEL program in Indiana are working in the field of corrections. Their successes should be made part of the system, and their observations would be invaluable as we begin to reform our system. We need some central body that can collect all this information, bring it to the attention of those others who are working in this area, and be the catalyst for new ideas and programs.[12]

The Council established by Title I of S. 3185 would serve this function, and I believe that it would perform its task well. It is about time that we stopped merely talking about the need for such a body, while alowing other such bodies without clear-cut charters and diversified enough membership, to languish in the statute books, giving the appearance of oversight operations without any substance. We need to establish an effective body, that will have the authority and responsibility of finding new solutions to old problems in a way that will truly serve the needs of today's society.

Footnotes at end of article.

TITLE II—FEDERAL CIRCUIT OFFENDER DISPOSITION BOARD

In the operational phase of the criminal justice system, an overall authority is needed which will have administrative responsibility for the functioning of the new system established in S. 3185. At present, there is absolutely no uniformity in the way our federal courts deal with offenders who are brought before the bench. This lack of uniformity is most prevalent in sentences that are imposed by the federal courts. For instance, in 1965, the average length of prison sentences for narcotics violations was 83 months in the 10th Circuit, but only 44 months in the 3rd Circuit. During 1962, the average sentence for forgery ranged from a high of 68 months in the Northern District of Mississippi to a low of 7 months in the Southern District of Mississippi.[13] Despite our practical experience, I am sure that no one would challenge the verity of the statement that "Unwarranted sentencing disparity is contrary to the principle of evenhanded administration of the criminal law."[14]

In workshop sessions at the Federal Institute on Disparity of Sentences, judges were given sets of facts for several offenders and offenses and were asked what sentences they would have imposed. In one case involving tax evasion, of 54 judges who responded, 3 judges voted for a fine only; 23 voted for probation; and, 28 voted for prison terms ranging from less than one year to five years. As a result of this type of experiment, judges themselves have attempted to resolve these discrepancies by coming together to study and learn of various sentencing techniques. While I think that this is a good start, it could be said that judges have more important things to do with their time than try to solve a problem that is inherent in the federal system of justice. Their very great value is that of being individuals learned in the law. When we give them the added burden of attempting to deal with the problems of a disjointed system, it can only diminish their effectiveness. The task of providing for a coordinated sentencing policy in the federal judicial system should be given to a body that is better suited to that type of problem. Since the problem is national in scope, a national body is needed.

Title II of S. 3185, would establish a Federal Circuit Offender Disposition Board (the Circuit Board) to handle precisely this type of problem. The Circuit Board would set national guidelines for the imposition of sentences. This would not be a national body that just arbitrarily imposed its will on every judge in the country. Basic to an understanding of sentencing is that there will probably never be, and perhaps should never be, complete uniformity of sentencing. This would ignore the need for individualized, if not personalized, attention given to a particular offender by a judge. The Circuit Board, however, would help the federal judiciary to function harmoniously as component parts of a coordinated system of justice.

The Circuit Board would be composed of 11 members, each of whom would represent one federal circuit. The members would represent a broad background from such fields as corrections, psychiatry, psychology, sociology, law, medicine, education and vocational training. In addition to setting sentencing guidelines, it would also establish guidelines for federal courts in pre-trial release, diversion in lieu of prosecution, probation, parole, diversion in lieu of incarceration, and incarceration.

Nor would the Circuit Board be bound to just one facet of the criminal justice system. Questions involving bail, alternative programs, parole and incarceration are integrally tied in with the sentencing function. All of these facets of the criminal justice system should be coordinated on a national level by the Circuit Board.

The Circuit Board would also hear appeals from decisions made concerning release from prison on parole. Since it will establish national policy on parole, it is the logical body to handle appeals of this nature.

In this regard, it would be much like the present United States Board of Parole, except that it would be relieved from the every day decision-making process. The U.S. Board of Parole relies very heavily on the recommendations of its hearing examiners in making its decisions concerning parole, to the extent that an estimated 85% of all Parole Board decisions are really the hearing examiner's decision with the Parole Board's concurrence. Under the new system which S. 3185 would establish, the operational decisions would be made on a local level, and the Circuit Board could concentrate on its very important function of policy setting and appellate hearings.

With each member of the Circuit Board representing a federal circuit, each member would have the responsibility of overseeing the direction and operation of the various local (District) boards within each circuit. So in essence, a pyramidal structure is established providing for a continuity of responsibility along with a decision making structure that would free the local boards from policy detail, and free the Circuit Board from operational detail.

TITLE III—DISTRICT COURT OFFENDER DISPOSITION BOARDS

When a person is apprehended and charged with the commission of a federal crime, the process through which he proceeds from arrest to release should be one coordinated movement. It should have some continuity. Now, questions of setting bail, pretrial procedures, presentencing investigations, tests and evaluations to determine prison assignments, and eligibility for parole are all determined by separate agencies, with little or no coordination among them.

The effect of this uncoordinated activity is that an offender is often shunted from agency to office to department to board, minimizing the effectiveness of each body and reducing the possibility for rehabilitation. Neither the individual offender nor society, I believe, is served by such a haphazard process.

S. 3185 would replace the present process with a system of District Court Offender Disposition Boards (District Boards). Each federal district would have a District Board to serve as the coordinating body of professionals which the rest of the system could rely on. The membership of each District Board would represent the same diverse background as that of the Circuit Board. Given the varying caseload of individual districts, the number of people on each District Board should be flexible, but each Board should have at least 5 members.[16]

The District Boards are designed with two major focuses: regionalization and unification. For instance, in the parole area, no longer would 35,000 individual decisions along with 11,784 personal hearings be made by eight overburdened men assisted by eight equally overburdened hearing examiners, located thousands of miles away, with little or no time to investigate most cases with any degree of personalized attention. Instead, each District Board would have an average of about 400 cases a year to which it could give detailed attention.

This process of regionalization is probably the least controversial of the bill. In personal conversation with George Reed, former Chairman of the U.S. Board of Parole, I was assured that this was the direction in which the parole process must move. Regionalization of decision making, with the right to

appeal to a national body, is the only logical way to deal with the large number of cases that come into our criminal justice system each year. It certainly is not an unheard of approach since this is the modern trial method. We have come a long way in our judicial system from the days when judges would ride a circuit. Yet in our parole process, we are just barely at that stage. The regionalization of the decision making process would, in my judgment, merely bring the parole process into the twentieth century.

Unification is a much more difficult concept to sell, and I think that the reasons are obvious. Few bureaucracies will willingly dismantle themselves. If left alone, it will continue to function with the speed and direction of an amoeba. Perhaps we can afford the type of resistance to change in some areas of our society, asking for our money and patience, but giving us nothing but inefficiency and an alarming rate of failure of close to 70%.

There has been quite a bit of discussion as to whether we might not solve the problem by grafting on to the old system new procedures and rights. Yet this approach would further burden an already overburdened system, leaving us worse off than we are now. The way to resolve the problem is to scrap the system which does not work and replace it with one designed to meet the needs of both offender and society.

The new system must be designed with care. It must ensure professionalism and personal attention. It must ensure fairness. It must provide officials of the system with the time to consider carefully all of the relevant factors which should be considered in deciding questions such as reducing the charge, sentencing and parole. But more than this, any new system should be just that—a system, coordinated and integrated with the other aspects of the criminal justice system. Similar functions should be performed by the same body, and that body should be a reservoir of expertise that other parts of the system can rely on for sound recommendations and for efficient operations. By unifying within the District Boards these various functions, this type of coordinated system would emerge.

After arrest each defendant would be assigned to the District Board. The first task the District Board would have would be to recommend the type of bail that should be set. At this point, the District Board would become acquainted with the individual. Certainly at this point, only a relatively cursory examination into the defendant's background can take place. But it is useless for this examination to take place, as it must, and then have someone else go over the same ground at a later point in the proceedings. The process of sifting through the information with an eye towards how best to proceed with the individual case can begin at this early stage.

This information would be distilled into a formal report so that at the proper time a precharge conference could be held, in which the counsel for the defense and the prosecuting attorney would participate. Unlike the present plea-bargaining conference that is now held, the primary concern of the participants would not be how to get the case out of the way so that the system can continue to grope along relying on pleas of guilty. In the precharge conference, the appropriateness of noncriminal disposition of the case would be discussed.[17]

Not every defendant ought to be prosecuted. Chief Judge Harold H. Greene of the District of Columbia testified before the Congress on June 23, 1971 that "present court figures suggest that perhaps as many as twenty percent of the total number of cases prosecuted annually might be diverted from the criminal justice system if a narcotics pre-trial diversion project were fully implemented." In the same way, confirmed alcoholics should not be processed through the criminal justice system. Sick people are not going to benefit from legal interference. According to figures supplied by the Manhattan Bowery Project, arrests of drunks accounts for almost a third of all arrests. Before that project originated in 1969, arrests in the Bowery from May through July of 1968 for disorderly conduct, loitering and public intoxication totalled 1,674. During the corresponding period in 1969, when alcoholics were diverted from the criminal justice system, arrests dropped to 270.

Certainly the federal system will not be plagued by the same number of alcoholics or drug addicts, but if they do find their way into the system, there should be a process set up whereby they can be diverted from the legal system into medical facilities where both they and society will benefit. There is little use in prosecuting a sick person for having exhibited the symptoms of his disease, but that is what we continue to do with alarming frequency.

Likewise, there are offenders who may not be sick but whose problem can be better dealt with in a diversion project rather than by prosecution. In New York, the VERA Institute of Justice sponsored the Manhattan Court Employment Project which sought to divert those defendants who could be placed in some type of vocational training program. Alcoholics and drug addicts were specifically excluded from this project. The results of this project were very dramatic.

The rate of *arrest* among participants while active in the program, on the average during the second quarter of fiscal year 71–72, was .039%.[18] This project established a regular procedure where defendants were screened and a determination was made as to the possibility of them being diverted in lieu of prosecution. Great concern was given to ensuring that not only would the offender be helped, but more importantly, that society would be protected. If we want results from our criminal justice system, if we want to be protected from crime, if we want a correctional system that pays for itself many times over by truly helping to "correct" an offender, then it is programs like this that need to be utilized. The Precharge Conference would provide an opportunity where decisions of this type could be made, based on sound background developed by the District Board.

The diversionary programs that I envision would, of course, depend on the consent of the particular defendant. The charges would be held in abeyance until such time as the defendant either demonstrates his successful completion of his diversion project, or he is terminated in the project and prosecution is resumed. Going hand in hand with any type of program like this should be an intensive counseling program coordinated by the District Board.[19]

If the experience of the projects that I have mentioned were indicative of the success I feel the new system will bring, there would be a substantial benefit to society in terms of reduced crime. The savings to society from the reduction of crime would more than offset any increased costs of the reorganization. The potential benefits in terms of resources as well as human potential are enormous. Diversion projects have, to my satisfaction, proven their worth. The system should therefore be resigned in such a fashion so that such diversion decisions can be intelligently made.

If the defendant were prosecuted and convicted, the District Board would again play a very important role. Once the offender has been convicted, the question is, What do we do with him? As pointed out above, many judges will disagree on the disposition. But in S. 3185, the Federal Board will have established broad national sentencing guidelines. Within these guidelines, it will be the responsibility of the District Board to recommend to the Court the sentence that should be imposed on the offender. It would base its recommendation not only on its professional background, but also on the great deal of information which it has accumulated during the period when the offender was being prosecuted.

At present, pre-sentence reports are used quite widely. These reports are prepared by probation officers who have a caseload of two to three times greater than that recommended, and who among other things, serve as parole officers as well. Because of their burdensome caseloads, they do not have the time to give the proper and complete attention to the pre-sentence report.

Under the new system, the local board would recommend not only the sentence to be imposed, such as probation, a fine, an alternative to incarceration, or incarceration, but its recommendation would also include two new and very significant additional parts: the purpose or reason for imposing the sentence, and the goals the offender needs to attain in order to be released from the jurisdiction of the court. In the latter case, if incarceration were imposed, the recommendation would include the goals for the offender to attain while in prison in order for him to be released on parole.

The Supreme Court has noted four purposes for imposing a sentence of imprisonment: (1) deterrence of similar crimes, (2) protection of society, (3) discipline of the offender, and (4) rehabilitation of the offender.[20]

There may be more reasons; yet too often these are never articulated. We never know exactly why we as a society and through a judge have imposed a particular sentence. In S. 3185, the District Board would make it clear why we are doing what we are doing.

The second important addition would be the recommendation as to the goals to be attained by the offender. The sentence should be shaped to the offender. By making the punishment fit the criminal, the chances are much better for true rehabilitation. Consequently, sentencing should be a goal-oriented process. Not only would the District Board set out very clearly what the offender has to do to be released from prison if incarceration were recommended, but "a detailed judicial determination of the specific goal to be attained by supervised confinement would provide administrators with guides for shaping the individual's correctional experience as well as serve as a benchmark by which the progress and nature of each prisoner's treatment within the institution could be judged."[21]

The new procedures in S. 3185 would give to the sentencing process the attention and professionalism it has long deserved. In a society interested in the rights of the accused, we have tended to focus all of our attention on the trial procedure. However, it is probably more important to society, in the long run, what we do with a criminal after we have convicted him. The Courts themselves have recognized this by focusing more directly on the sentencing procedure, prison conditions and parole procedures. It is long past the time when the process of sentencing should have been raised to a more professional status.

In a report prepared for me by the Library of Congress on September 30, 1971, a study examined the procedures for sentencing criminals in foreign countries. That report indicated the use that other countries have made of outside experts who aid the court in the sentencing process. Though all of the countries studied permitted the finding of guilt as well as the responsibility of imposing a sentence by the courts, "these standard

Footnotes at end of article.

procedures do not prevent the courts from seeking expert advice where problems arise as to the imputability of a crime because of the mental condition of the defendant, or other factors residing within him or his environment. In Scandinavian countries, for instance, the courts as a practical matter rely heavily on the advice of experts who are appointed directly by the courts, rather than appearing as expert witnesses for the defense or the prosecution." [22]

Informal procedures have developed, both in this country and abroad, which recognize the inability of the court, by itself, to adequately determine a sentence. Consequently, advice and recommendations are sought, be it through a pre-sentence report by a probation officer, or from a panel of experts. Given the great importance of the sentencing process, this informal way of dealing with sentencing should be given a formal structure through which the most competent and professional advice can reach the court on a regular basis. The present haphazard manner of getting this type of information should be traded in for a newer model. I think that in this regard, the United States can be a leader, showing the legal community of the world the way in this complicated problem.

This recommendation by the Board would not bind the judge one way or another. At all times, the judge would retain his prerogative to reject the advice and impose his own sentence. However, in doing this, he too would have to put on the record his reasons for imposing the particular sentence and the goals he feels that the offender should attain. I believe this additional procedure is necessary to protect society and the rights of the individual offender.

No matter what the sentence of the court, the District Board would retain responsibility for the offender until he was released from the jurisdiction of the court. For instance, if the offender were released into the community under limited supervision, his community officer would be under the jurisdiction of the District Board. Today, if an offender is placed on probation, his probation officer would be under the jurisdiction of the court. I don't see any reason why a probation officer should be under the administrative authority of the courts. The courts already have enough to do. Since an administrative body, the District Board, would already be in existence, good management dictates that a community officer be under the District Board's administrative responsibility. The community officer would help the offender work to achieve the goals set for him by the court which would be synonomous with successful reintegration with the community as a responsible citizen.

Despite the fact that parole and probation, two supervised releases, have evolved in an historically distinct manner, it makes little sense to institutionalize an historical accident by keeping these two very similar functions separate and distinct. Today, for instance, one man may be both a probation officer reporting to the court, and a parole officer reporting to the parole board. In either case, he is performing essentially the same type of function, but he responds to two different masters that may have two different philosophies. The community officer would be under one jurisdiction, the District Board, which would handle the administrative problems and ensure that the sentence and its goals could be carried out in the most efficient manner. The Interim Report of North Carolina Penal Study Committee could find "no logical reason why these persons should not be supervised by one department. The education, training and type of supervision is essentially the same." That conclusion is sound, and should be implemented on the federal leve..

If the offender were incarcerated, the value of the goals set by the trial judge would be quite significant. At present, too many inmates do not have a clear idea of what they have to do in order for them to be released back into the community.

I have received innumerable letters from prisoners who have been denied parole and they do not know why. They were not told with any specificity what they had to do to make parole, other than to "be good." When parole is denied them, they often wait months for a one word answer, "yes" or "no." The U.S. Board of Parole cites the lack of manpower available to it as the reason for not giving reasons for denial of parole and this is a reasonable explanation. In two institutions, the Parole Board has instituted the use of a check off list [23] in order to provide reasons to a prisoner. But these reasons include, "He has not done enough in the institution to improve himself". "He was a key figure in the offense," and "Because of the nature of the offense, justice requires that he be confined a longer period of time."

This is not the type of in-depth report that inspires a prisoner to strive to improve himself. He still does not know what he has to do to be denied Parole or what he must do in the future. What can he do if he is denied parole at a date when the judge knew he would be eligible for parole? Even if he is a perfect or "model" prisoner, he may be denied parole. The anger and frustration that this arbitrary process causes must be deemed to be one of the prime causes not only for prison unrest, but also for the high rate of recidivism among ex-offenders.

Under the system established in S. 3185, this antiquated process would be eliminated by a system of incentives based on reason. Upon entering prison, the offender would know why he was sentenced, and what he had to do to get out. The goals would always be there towards which he could strive.

At least once a year, the District Board would hold a hearing to determine the prisoner's progress. These hearings would be in-depth meetings by people who had been with the man's case from the time he was arrested. They would not be like the present parole hearing: five minutes before an overworked and nameless official. During these hearings, a review of the offender's progress would be made, and within two weeks, a decision as to the suitability of parole for the offender would be given to the offender. Within another two weeks, the detailed reasons for the denial of parole would be given to the offender, hopefully accompanied by a personal visit. In this way, after each of these meetings, the offender would very clearly know what he had done right and what he had done wrong. He would know what was expected of him to be released.

One of the likely benefits of this type of approach would be a reduction in tension inside our prisons, and an increasing focus on the rehabilitation of the individual offender. Under this new system those individuals who threaten the safety of the community would be less likely to be released into the community but those who could be safely released under community supervision would have the chance to rejoin their family and community, with an increased chance of staying out of prison.

Once released on parole, the offender's community officer would also be under the authority of the District Board. His progress in the community could be monitored in a manner that would help the offender to readjust to his surroundings while at the same time, helping to insure the safety of society.[24]

The District Board would be a logical body to fill a very pressing need. By regionalizing, it would make the decision-making process one that is open to thought and personalized attention. By unifying, it would eliminate needless dupulication while at the same time serving as an integral part of our criminal justice system. Perhaps we are still doomed to muddle through experiences like that of Jarndyce and Jarndyce cited by Dickens in *Bleak House*.[25] Perhaps we will continue to tolerate a system that does nothing but produce failures. Perhaps. But I will not sit idly by while this happens. Common sense demands that something be done, and S. 3185 suggests a new system that would truly serve society by insuring that our system of justice becomes a system worthy of the lofty role we expect it to play.

Mr. Chairman, I would like to add just a few words concerning S. 3674. I doubt anyone would deny the usefulness of an effective parole system. However, at present, both in the District of Columbia and in the Federal system generally, a situation exists which thwarts the basic purpose of parole. In these two jurisdictions, a parolee is sometimes given credit for the time he spends on parole toward the running of his sentence. For example, if a man were sentenced to 15 years in prison, he would be eligible for parole after 5 years. If paroled at that time, he would be under parole supervision for the remaining 10 years of his sentence. Once 15 years has passed from the time of the imposition of his sentence, he would be released from the jurisdiction of the court, and would be deemed to have served his sentence. In other words, though he was on parole for the final 10 years, the man would still be serving his sentence.

However, let us assume that after 9 years on parole, the man violated his parole. The violation could be either a minor technical violation, or it could be a violation resulting from the commission of a crime. In either case, at the present time in the District of Columbia, and in the Federal system, not only would that man be sent back to prison for the 1 remaining year, but he would also have to serve the 9 years that he had been on parole as well as any sentence imposed for the new crime.

As a result, he is given no credit for the time that he was on parole before his violation. In effect, he would be required to serve his sentence twice. Not only is this unfair and contrary to the philosophy behind corrections, but it is also illogical. If the man commits a new offense, he would be duly punished by the court for that new offense. If the violation were merely technical in nature, and no sentence is imposed, then does he deserve to be punished by years in jail for something that the law does not deem serious enough to punish? Clearly, the answer is "No."

Aware of this deficiency, the National Commission on Reform of Federal Laws—the so-called Brown Commission—established by Public Law 89-801, has recommended that the law be changed. In section 3403(3)(a) of the report, the Commission recommends that credit be given for the time spent on parole up to the date of the new violation. Illinois has followed this suggestion and has such a provision in the Illinois Unified Code of Corrections, section 3159(3)(1).

This change was also suggested in 1956 by the American Law Institute in the Model Penal Code, section 305.17(1). As the drafters of that section indicated, the preponderant rule in the United States is to allow a parolee credit for the time he has served on parole without violations.

At the present time, only 13 States and the District of Columbia have statutes, expressly prohibiting the crediting of such "clean time." They are Colorado, the District of Columbia, Florida, Idaho, Kentucky, Louisiana, Maine, Nevada, North Carolina, Oklahoma, Oregon, Rhode Island, Texas, and West Virginia.

The vast majority of States have taken the initiative and given credit for time served, on parole. Responsible and respected organizations have worked for such laws. The Con-

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Footnotes at end of article.

gress now has a chance to become a part of this movement and give such credit in the two jurisdictions for which it has responsibility.

Under the provisions of S. 3674, a parolee would be given credit toward the running of his sentence for the time he spends on parole up to the time of a new violation. If the violation is serious enough to warrant his return to prison, he will have to serve any new sentence as well as the remainder of his original sentence, but he will not be forced to serve again that part of his former sentence which he has already served on parole.

Mr. Chairman, in conclusion, let me just once again thank you for your invitation to testify today. I have attempted to set out as fully as possible the need for a new look at our present system of criminal justice. The figures themselves present a very strong case for reform. The diffferent experiments, projects and studies that I have cited all show that there are new ideas which could work in such a way as to serve both society and the individual offender. We in the Congress need to take the initiative and design a system where such programs can work in the best way possible. That is what I have attempted to do in S. 3185.

I look forward to working with the members of this subcommittee in the coming months and years in our continuing effort to ensure that the criminal justice system truly serves and protects society.

Thank you.

FOOTNOTES

[1] Congressional Quarterly Fact Sheet, June 18, 1971, page 1336.

[2] *id.*, p. 1339.

[3] Congressional Record, Dec. 7, 1971, p. S20746.

[4] Congressional Quarterly, June 4, 1971, p. 1219.

[5] Letter from Kenneth Hardy, Director, D.C. Department of Corrections, to Sen. Percy 6/23/72.

[6] Biennial Report, The U.S. Board of Parole, 7/1/68–6/30/70 p. 16–17.

[7] White House statement, issued 11/13/69.

[8] Time Magazine, 1/18/71, p. 46.

[9] S. 1430–S. 1433.

[10] Letter from Norman Carlson, Chairman, Inter-Agency Council on Corrections, to Sen. Percy, 7/7/71.

[11] GAO outline (attached).

[12] In the President's memorandum of November 13, 1969, his twelfth point cited the need for just such a system. "Clearly the poor record of our rehabilitative efforts indicates that we are doing something wrong and that we need extended research both on existing programs and on suggested new methods." Citing the large number of federal agencies involved in the field of corrections, he said that "if all of these efforts are to be effectively coordinated then some one authority must do the coordinating."

[13] Task Force Report on the Courts, The Presidents Commission on Law Enforcement and Administration of Justice, Chapter 2, "Sentencing," p. 23.

[14] *Id.*, p. 23.

[15] *Id.*, p. 23.

[16] The total number of cases commenced in all 90 District courts throughout the United States and Puerto Rico were 35,413 in 1969 and 39,995 in 1970. The average number of cases begun each year in a district court was 393 in 1969 and 444 in 1970. Figures for the District Courts of Illinois are a good example of the various caseloads:

Northern District of Illinois: 1969—755; 1970—625.

Eastern District of Illinois: 1969—95; 1970—186.

Southern District of Illinois: 1969—161; 1970—188.

[17] This is a suggestion of the President's Commission on Law Enforcement and the Administration of Justice Task Force Report: The Courts, page 7–9.

[18] "Quarterly Report," The Court Employment Project, Second Quarter, Fiscal Year 1971–72, p. 5.

[19] This type of program is also authorized in S. 3309, which was introduced by Sen. Quentin Burdick (D-N.D.), and of which I am a co-sponsor.

[20] Trial magazine, "A Judicial Mandate," by Judge Donald P. Lay, U.S. Court of Appeals, Eighth Circuit, November/December 1971, p. 15.

[21] *Id.*, p. 18.

[22] "Procedure for Sentencing Criminals in Foreign Countries", The Library of Congress Law Library, Washington, D.C., September, 1971, p. 1.

[23] U.S. Board of Parole, Form H–7(a)

[24] The Interim Report of the North Carolina Penal Study Committee recommended this type of common sense approach. On March 15, 1971, it said that "the supervision of all persons convicted of crime and who are released and placed on probation, parole or given conditional release should be supervised under one system" (p13).

[25] (The Court was) mistily engaged in one of ten thousand stages of an endless cause, tripping one another up on slippery precedents, groping knee-deep in technicalities, running their goat-hair and horse-hair warded heads against walls of words, and making a pretense of equity with serious faces, as players might. . . . Well may the court be dim, with wasting candles here and there: well may the fog hang heavy in it, as if it would never get out: well may the stained glass windows lose their colour, and admit no light of day into the place: well may the uninitiated from the streets, who peep in through the glass panes in the door, be deterred from entrance by its owlish aspect . . . but Jarndyce and Jarndyce still drags its dreary length before the court, perennially hopeless. The empty court is locked up (now). If all the injustice it has committed, and all the misery it has caused, could be locked up with it, and the whole burnt away in a great funeral pyre,—why so much the better.

APPENDIX I

Listing of programs designed to benefit the criminal offender

DEPARTMENT OR AGENCY AND PROGRAM OR PROGRAM CATEGORY

[Amount applicable to criminal offender—fiscal year 1971]

Department of Health, Education, and Welfare:	
Office of Education:	
Vocational Education	$1,188,000
Adult Education Program	2,381,000
Title I of the Elementary and Secondary Education Act of 1965	19,100,000
Title II of the Elementary and Secondary Education Act of 1965	[1]
Teacher Corps Program	1,502,000
Project START	[2] 90,000
Drug Education Program	[1]
Nationwide Education Programs in Corrections	400,000
Career Opportunities Program	112,000
Community Service Programs	29,000
Title I of the Library Services and Construction Act	[1]
Health Services and Mental Health Administration:	
Research on criminal behavior and on the sociology of crime	2,200,000
Supporting research and development—Corrections	2,100,000
Narcotic Addict Rehabilitation Program	$6,591,000
Training of social workers, psychiatrists, and paraprofessionals in the correctional field	5,167,000
Narcotic Addict Community Assistance Program	18,939,000
Social and Rehabilitation Service:	
Title I of the Juvenile Delinquency Prevention and Control Act of 1968	634,256
Title II of the Juvenile Delinquency Prevention and Control Act of 1968	2,530,000
Department of Labor: Offender Rehabilitation Program	15,900,000
Office of Economic Opportunity:	
Legal Services Program	[1]
Drug Rehabilitation Program	[1]
Volunteers in Service to America (VISTA)	[1]
Other programs and projects	[3] 5,410,950
Department of the Interior: Employment Assistance Program	200,000
Corps of Engineers: Rehabilitated Offender Program	6,300
Environmental Protection Agency: Physically Handicapped Program	[1]
Department of Agriculture:	
Extension Service	[1]
Forest Service	[1]
United States Postal Service:	
Job Opportunity Program	[1]
Postal Academy Program	[1]
Department of Justice:	
Law Enforcement Assistance Administration:	
Block grants under title I, pt. C, of the Omnibus Crime Control and Safe Streets Act	[1] [4]
Discretionary grants under title I, pt. C, of the act	[5] 18,969,625
National Institute of Law Enforcement and Criminal Justice	2,100,000
Grants under title 1, pt. E, of the act	[6]
Other bureaus:	
Rehabilitation of offenders	[7] 22,170,000
Treatment of narcotics and dangerous drug offenders	2,428,000
Federal Prison Industries, Incorporated	[8] 44,500,000
Judicial Branch (Federal Probation Service): Services of probation officers	17,500,000
Department of Housing and Urban Development: Model Cities Program	[1]
Total	192,148,131

[1] We were unable to determine the amount of funds being applied to programs of projects affecting the criminal offender. For more details, see appendix II.

[2] This project was co-funded. The Office of Education contributed $75,500, and the Civil Service Commission provided the remaining $14,500.

[3] This total is a sum of the examples presented on page 16 in appendix II and is not to be considered all inclusive.

[4] Pt. C includes estimated expenditures of $50,660,000 for correction and rehabilitation. Information was not available, however, to show how much of this money would be spent to benefit the criminal offender.

[5] Our analysis included only those projects interpreted as having direct impact on the criminal offender. Projects having indirect impact, such as research projects and studies, were excluded.

[6] The amount budgeted for pt. E was $47,-

500,000 for fiscal year 1971. Information was not available to show the amount of funds to be spent for projects to benefit the criminal offender.

[7] The amount includes $20,990,000 from the Bureau of Prisons. The total appropriations for the Bureau were about $74,900,000 for fiscal year 1969, $87,600,000 for fiscal year 1970, and $120,200,000 for fiscal year 1971. In this report we included only those funds that we could identify as being expended for programs and projects to benefit the criminal offender.

[8] This figure represents the total sales for fiscal year 1971. Net industrial profits were about $5,000,000. The Federal correctional institutions' vocational training programs are funded from these profits.

APPENDIX II

COMPTROLLER GENERAL
OF THE UNITED STATES,
Washington, D.C.

Hon. CHARLES H. PERCY,
U.S. Senate.

DEAR SENATOR PERCY: In your letter dated October 28, 1971, you requested that we identify the Federal agencies operating programs which directly or indirectly have impact on the criminal offender once he has been brought into the criminal justice system. You expressed particular interest in programs which provided job training, vocational rehabilitation, and block grants to States, such as those administered by the Law Enforcement Assistance Administration, Department of Justice. You requested also that we identify the various programs in operation and the amounts expended for such programs.

In subsequent discussions with your office, it was agreed that our report would include information on those programs designed to benefit criminals after they had been apprehended and that programs dealing with investigative or police-type work would not be included. It was agreed also that we would obtain information on the Advisory Corrections Council authorized as set forth in the United States Code (18 U.S.C. 5002).

Appendix I is a listing by department and/or agency of the programs which we were able to identify as having an impact on the criminal offender. Appendix II explains the listing in more detail. In our discussions with your office, it was agreed that, when program costs applicable to criminal offenders were not readily determinable, we would use the best estimates available. We have not classified funds expended for enforcement and incarceration as benefiting the criminal offender. The Justice Department's Bureau of Narcotics and Dangerous Drugs and Bureau of Prisons are examples of agencies that expend funds for such purposes.

The information, which was obtained through surveys of the programs administered by the various departments and/or agencies and through discussions with responsible officials, shows that few programs are designed specifically to benefit the criminal offender. Rather, many of the Federal Government's social and economic programs have components which deal with criminal offenders either before, during, or after their incarcerations. In a few programs, such as the Teacher Corps program, the component is specifically authorized by law. In most cases, however, the components are carried out under the general legislative authority of the program.

We have been informed by the Department of Justice that the Advisory Corrections Council has not been active for at least the last 5 years.

We trust that the information furnished will be of assistance to you. We plan to make no further distribution of this report unless copies are specifically requested, and then we shall make distribution only after your agreement has been obtained or public announcement has been made by you concerning the contents of the report.

Sincerely yours,

ELMER B. STAATS,
Comptroller General of the United States.

REVIEW TO IDENTIFY THE VARIOUS FEDERAL AGENCIES OPERATING PROGRAMS DESIGNED TO BENEFIT THE CRIMINAL OFFENDER

(By the Comptroller General of the United States)

MAY 17, 1972.

Listing of programs designed to benefit the criminal offender

DEPARTMENT OR AGENCY AND PROGRAM OR PROGRAM CATEGORY

[Amount applicable to criminal offender—fiscal year 1971]	
Department of Health, Education, and Welfare:	
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Vocational Education	$1,188,000
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Extension Service	[1]
Forest Service	[1]
United States Postal Service:	
Job Opportunity Program	[1]
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[8] This figure represents the total sales for fiscal year 1971. Net industrial profits were about $5,000,000. The Federal correctional institutions' vocational training programs are funded from these profits.

DESCRIPTION OF PROGRAMS DESIGNED TO BENEFIT THE CRIMINAL OFFENDER

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

Vocational Education

Training programs provided by the States under the Vocational Education Amendments of 1968 include projects for inmates of correctional institutions. In fiscal year 1969 Federal funds in the amount of $550,000 were used to support the training of 18,000 inmates. In 1970 Federal funds in the amount of $775,000 were used to train 25,000 inmates. In 1971, 33,000 inmates were enrolled at an estimated cost of $1,188,000.

The nature of the programs varies considerably. Some States report that their penal systems offer education and training in many

occupational areas, but education and training opportunities in the penal systems of other States are rather limited.

Adult Education Program

An objective of the adult education program is to expand educational opportunities by encouraging the establishment of projects in correctional institutions that will enable adult inmates to continue their education, at least to the level of completion of secondary school, and to make available the means to secure training that will enable them to become more employable, productive, and responsible citizens.

Matching grants, based on an allotment formula, are made to States for adult education programs to be carried out by local educational agencies and private nonprofit agencies. In fiscal year 1969 the States expended $1,403,000 in Federal funds under this program to provide adult basic education for about 20,000 inmates; in fiscal year 1970, $2,061,000 for about 29,000 inmates; and, in fiscal year 1971, $2,194,000 for about 32,000 inmates.

Grants are also made directly to local educational agencies or other public or private nonprofit agencies, including educational television stations, for special projects which have national significance and which promote comprehensive or coordinated approaches to the problems of adult inmates who have not received high school diplomas, or the equivalent. These grants, which amounted to about $135,000 in fiscal year 1970 and $187,000 in fiscal year 1971, generally require a non-Federal contribution of 10 percent of the cost of the project.

Title I of the Elementary and Secondary Education Act of 1965

The purpose of this title is to improve the educational programs of local educational agencies serving areas having concentrations of children from low-income families. The improved programs are to contribute particularly to meeting the needs of educationally deprived children. Some funds are provided to States and local agencies responsible for the education of children in institutions caring for both neglected and delinquent children. Total funds appropriated for the program and that part appropriated for children in institutions for the delinquent follow.

[In millions]

	Fiscal year—		
	1969	1970	1971
Total appropriation	$1,100	$1,300	$1,500
Funds for children in institutions for the delinquent:			
State	12.5	14.3	16.4
Local	2.1	2.5	2.7
Total	14.6	16.8	19.1

Title II of the Elementary and Secondary Education Act of 1965

This title of the act authorizes the Commissioner of Education to carry out a program for making grants for the acquisition of school library resources, textbooks, and other material for the use of children in public and private elementary and secondary schools. Grants are made to the States which, in turn, distribute the funds to the school systems. Some of the funds are provided to State and local agencies operating correctional institutions, but Office of Education officials could give no estimate of their magnitude. We have contacted two State departments of education—Texas and New York—and they estimate that about one tenth of one percent of their title II funds are provided to correctional institutions.

[In millions]

	Fiscal year—		
	1969	1970	1971
Total appropriation	$50	$42.5	$80

Teacher Corps Program

This program is designed to improve the educational opportunities of poor children and to broaden teacher-training programs at colleges and universities. The Teacher Corps operates a corrections program which has the same overall objectives but which deals specifically with youthful offenders—adjudicated delinquents and socially maladjusted youths—in an institutional setting.

[In thousands of dollars]

	Fiscal year—		
	1969	1970	1971
Total appropriation	20,900	21,737	30,800
Funds for corrections programs	112	210	1,502

Project START

Project START is part of the Federal City College Lorton Project, a rehabilitation project for men either incarcerated in or paroled from Lorton Prison in Lorton, Virginia. Specifically Project START is designed to provide an opportunity for paroled men to obtain a college education while working as paraprofessionals for the Office of Education. The project began in fiscal year 1970 and is funded jointly by the Office of Education and the Civil Service Commission.

[In thousands of dollars]

	Fiscal year	
	1970	1971
Office of Education funds	75.5	75.5
Civil Service Commission funds	14.5	14.5
Total	90.0	90.0

Drug Education Program

The objective of this program is to help schools and communities assess and respond to their drug abuse problems. The program began in fiscal year 1970. Program officials told us that, in one part of the program—Community Projects—some rehabilitated addicts probably were hired as instructors; however, these officials could not provide us with any estimate as to the number of such people in the projects.

[In millions of dollars]

	Fiscal year—	
	1970	1971
Total drug education program	3.6	6.0
Community projects		2.2

Nationwide Education Programs in Corrections

This program funds three centers that provide for the training of teachers (including Teachers Corps interns), administrators, and other staff members that operate treatment programs for juvenile delinquents and adult offenders. The fiscal year 1970 and 1971 appropriations were $150,000 and $400,000, respectively.

Career Opportunities Program

This program, which began in fiscal year 1970, is designed to improve the learning of children from low-income families by employing high-risk persons as paraprofessionals in poverty-area schools while, at the same time, providing these persons with the opportunity to obtain college degrees in education or to become qualified to teach in areas not requiring college degrees. The employed persons are those whose academic, family, and occupational histories hinder them in becoming assets to their communities. Program officials conservatively estimated that, nationwide, about 45 criminal offenders were enrolled in the Career Opportunities Program at an annual cost of $2,500 for each enrollee.

[In thousands of dollars]

	Fiscal year—	
	1970	1971
Career opportunities program, total	19,400	25,800
Cost for criminal offender enrollees	112	112

Community Service Programs

Title I of the Higher Education Act of 1965 provides Federal funds to strengthen community service programs of colleges and universities. These programs are designed to assist in the solution of community problems, and several that have been funded deal with criminal offenders.

The New Dimensions project in West Virginia and the Credit Extension and Quinnipiac projects in Connecticut provided extension courses to inmates of penal institutions. The Speed Up project in South Carolina provided training to inmates to enable them to obtain skilled employment. The Upsala Urban Extension project provided counseling for youthful and adult offenders in New Jersey.

Under title I the Congress appropriated $9.5 million a year for fiscal years 1969 through 1971. Of the total funds of $28.5 million, only about $29,000, $20,000, and $29,000 were applied to programs that dealt with criminal offenders during those fiscal years.

Title I of the Library Services and Construction Act

This title provides Federal funds to assist States in the extension and improvement of public library services, including those of libraries in institutions. Office of Education officials told us that they did not know what part of the funds went to penal institutions. They said that the States made these determinations. The appropriation for title I of the act was $2,094,000 for each of the fiscal years 1969, 1970, and 1971.

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

Officials of the Health Services and Mental Health Administration provided us with information that was sent to the Office of Management and Budget concerning National Institute of Mental Health programs for the reduction of crime. This data was listed under various program categories and did not identify the actual programs or projects involved. We analyzed the data on the basis of the descriptions provided in Office of Management and Budget Circular No. A-11 (pp. 87 and 88) for each program category. As a result we believe that the following categories may contain programs or projects having some effect, either direct or indirect, on the criminal offender.

[In thousands of dollars]

	Actual outlays for fiscal year—		
	1969	1970	1971
Research on criminal behavior and on the sociology of crime	3,072	1,585	2,200
Supporting research and development—Corrections	1,710	1,957	2,100
Special programs for the rehabilitation of narcotic addicts:			
Narcotic addict rehabilitation program	13,020	3,770	6,591
Narcotic addict community assistance program	2,409	3,057	18,939
Development of community resources:			
Training of social workers, psychiatrists, and paraprofessionals in the correctional field	3,334	5,167	5,167
Total	23,545	15,536	34,997

SOCIAL AND REHABILITATION SERVICE

The Rehabilitation Services Administration of the Social and Rehabilitation Service provides financial support and leadership for State programs of vocational rehabilitation. Each State administers and supervises its own program. Although individual States may provide some services to public offenders, there is no reporting by the State of the costs of this type of service. Federal grants to States for the cost of rehabilitation programs totaled about $500 million a year for fiscal years 1969 through 1971.

Among other things, the Youth Development and Delinquency Prevention Administration of the Social and Rehabilitation Service awards grants for rehabilitation, curriculum development, short-term training, and traineeship under the Juvenile Delinquency Prevention and Control Act of 1968. Details follow.

Title I of the Juvenile Delinquency Prevention and Control Act of 1968

Under part B of this title, grants may be provided to encourage the maximum use of State and community rehabilitation services for diagnosis, treatment, and rehabilitation of delinquent youth and of youth in danger of becoming delinquent. It is hoped that, through these grants, a greater range of alternatives to traditional forms of incarceration can be provided, that the development of new facilities closely linked to the community can be encouraged, and that the establishment of new types of community agencies for dealing nonjudicially with delinquent youth can be supported.

Projects funded under this section of the act include: new juvenile court procedures that reduce the length of time between apprehension of the juvenile offender, court hearings, and disposition; the decentralization of probation and parole services to Youth Service Centers; the provision of alternatives to commitment, such as small-group homes; supportive services and counseling for adjudicated youths; and the use of ex-delinquents in operation of local programs. Rehabilitative service grants were funded under this title, as follows:

	Fiscal year—		
	1969	1970	1971
Amount of funds	$245,941	$1,099,916	$634,256
Number of grants	9	26	18

Title II of the Juvenile Delinquency Prevention and Control Act of 1968

The purpose of this title of the act is to provide training for persons presently working in fields related to the diagnosis, treatment, or rehabilitation of delinquent or predelinquent youth, as well as for those preparing to enter this work. It also includes support for the counseling or instruction of parents to improve parental supervision of youth.

Assistance may be provided for training court volunteers, paraprofessionals, and youths themselves as additional manpower in combating juvenile delinquency. A summary of expenditures by types of programs in fiscal years 1969, 1970, and 1971 follows.

	Amount	Number of grants
FISCAL YEAR 1969		
Curriculum development	$248,544	6
Short-term training	1,356,979	43
Traineeships	25,000	1
Total	1,630,523	50
FISCAL YEAR 1970		
Curriculum development	190,799	6
Short-term training	1,260,731	39
Traineeships	158,845	3
Total	1,610,375	48
FISCAL YEAR 1971		
Curriculum development	131,318	5
Short-term training	2,269,262	36
Traineeships	129,420	2
Total	2,530,000	43

Some of the costs listed above pertain to prevention rather than rehabilitation. A breakdown of the funds expended for prevention and rehabilitation would have required an examination of each grant document. Even then, however, the breakdown might not have been complete because costs could have applied to both categories.

DEPARTMENT OF LABOR

Manpower Development and Training Act

For several years the Department of Labor has conducted research, demonstration, and pilot projects under various sections of the Manpower Development and Training Act to learn more about the problems of criminal offenders in their training and job adjustment. Efforts include vocational training for inmates, an experimental pretrial intervention program, model projects for employment service offices, and a Federal bonding program.

Inmate training under the act is the joint responsibility of the Departments of Labor and of Health, Education, and Welfare and is undertaken in consultation with correctional authorities. The Department of Labor pays for administrative costs and stipends to enrollees, and the Department of Health, Education, and Welfare pays for course material and presentation.

During fiscal year 1970 and the first 6 months of fiscal year 1971, 63 vocational training projects having about 4,100 inmate enrollees were funded under the act at a cost of nearly $8 million. Most of the projects were in State institutions, but a limited number were in county and Federal institutions. About $10 million will be expended for vocational training projects in fiscal year 1972. Most of the projects provide inmate stipends, a part of which is held back by the institution and paid to the inmate when he is released to help cushion the postrelease adjustment period.

Offender Rehabilitation Program

In fiscal year 1972 the Department of Labor consolidated all activities relating to inmate training and bonding into an Offender Rehabilitation Program. In addition to the $10 million of fiscal year 1972 funds for inmate training, about $19 million will be used under the Offender Rehabilitation Program for experimental projects and for the bonding program.

Under the sponsorship of the Department of Labor, the Federal bonding program has helped place inmate trainees in jobs after their release. Begun as a demonstration project under a 1965 amendment to the act, the program was aimed at a significant number of persons who had participated in federally financed manpower programs but who could not secure suitable employment because of police records. The number of persons actually bonded has been small, but for each the fidelity coverage was the key to obtaining employment.

Total expenditures for inmate programs are not readily available; however, the expenditures for inmate vocational training and for some of the research and development programs (including bonding) are shown below.

[In millions of dollars]

	Fiscal year—		
	1969	1970	1971
Training	3.0	5.1	[1] 13.7
Research and development	1.4	1.2	2.2
Total	4.4	6.3	15.9

[1] Included are expenditures for some demonstration projects

OFFICE OF ECONOMIC OPPORTUNITY

Criminal offenders are permitted to participate in all programs that are authorized by the Economic Opportunity Act. Certain programs, however, such as Legal Services or Drug Rehabilitation, are directed toward providing certain types of service to juvenile delinquents or criminal offenders.

Legal Services Program

The Economic Opportunity Act prohibits the use of Legal Services program funds for the defense of persons indicted (or proceeded against by information) for the commission of a crime, except where the Director of the Office of Economic Opportunity has determined, after consultation with the court having jurisdiction, that there are extraordinary circumstances requiring such legal assistance. This limitation does not apply to (1) representation of arrested persons before indictment or information, (2) parole revocation, (3) juvenile court matters, (4) civil contempt, and (5) alleged mistreatment of prisoners after sentence and incarceration. The Legal Services program was funded for $46 million, $53 million, and $62.1 million in fiscal years 1969, 1970, and 1971, respectively. Office of Economic Opportunity officials were unable to estimate the amount of Legal Services funds that were spent on criminal offenders.

Drug Rehabilitation Program

The Economic Opportunity Act authorizes the Office of Economic Opportunity to develop drug rehabilitation programs for narcotics addicts and drug abusers. Although officials were unable to estimate the amount of funds expended on criminal offenders who were participating in the program, they indicated that criminal offenders constituted a large part of the program's participants. This program received financing of $2.5 million, $4.5 million, and $12.4 million during fiscal years 1969, 1970, and 1971, respectively.

Volunteers In Service to America

The VISTA program, which has been transferred from the Office of Economic Opportunity to ACTION—a new Federal agency—

has assigned volunteers to projects which provide assistance in helping criminal offenders to reenter society. ACTION officials were unable to provide us with an estimate as to the efforts of VISTA which were directed toward criminal offenders.

Other Programs and Projects

Office of Economic Opportunity officials informed us of certain Office of Economic Opportunity-financed programs and projects that they believed were directed toward assisting criminal offenders. A listing of the projects provided to us follows. The officials informed us that, because of decentralized recordkeeping, they might not be aware of all projects for criminal offenders funded by Community Action Programs with locally initiated funds.

OFFICE OF ECONOMIC OPPORTUNITY PROGRAMS DIRECTED TOWARD CRIMINAL OFFENDERS

Program and/or location	Objective	Financing for fiscal year 1969	1970	1971
Project New Gate (6 locations)	Provide education programs for inmates of correctional institutions	$706,370	$1,171,486	$1,167,357
	Evaluation			299,949
Experimental youth program (8 locations)	Assist disadvantaged inner-city youth in carrying out projects designed to prepare them to lead constructive lives.	603,293	247,344	1,994,324
Motivational training, El Reno, Okla	Provide prerelease preparation of inmates			14,000
Drug Abuse Research, Laredo, Tex	Rehabilitate hard-core heroin addicts		70,639	63,312
Residential rehabilitation, Bridgeport, Conn	Provide residential assistance for narcotic addicts		35,000	35,000
Drug counseling, Albuquerque, N. Mex	Operate counseling center and treatment colony			30,000
Crime reduction and prevention, Washington, D.C	Resolve offenders' grievances with correctional institutions			219,000
National Juvenile Law Center, St. Louis, Mo	Assist in solving legal problems of juvenile poor			260,000
Bail project, San Francisco, Calif	Arrange release of indigent prisoners	61,833	60,000	25,000
Chicago, Ill	Prevent and control delinquency	665,528	575,171	575,171
Bail project, Paterson, N.J	Provide employment and counseling program for probationers	127,000	126,899	
New Brunswick, N.J	Provide social rehabilitation and other facilities to inmates of correctional institutions.	108,000	119,790	119,516
Sacramento, Calif	Assist ex-convicts in readjusting to life outside prison	42,688	28,200	40,000
Monterey, Calif	Provide counseling to petty larcency offenders			8,000
Cincinnati, Ohio	Half-way house for parolees	38,240	35,429	37,000
Washington	Obtain bonding for ex-offenders			70,000
Long Beach, Calif. (2)	Provide residences for female ex-convicts			56,136
Birmingham, Alabama	Provide counseling services for delinquents	90,918	96,284	90,000
Houston, Tex	Provide counseling for troubled youths and their families	94,942	110,600	104,130
Massachusetts Correctional Institute, Walpole, Mass	Provide prevocational and vocational training for inmates			50,000
Seattle, Wash	Aid the reintroduction of ex-felons into society			25,000
Metro Corps, Gary, Ind	Develop jobs for youth-gang members	50,000	50,000	50,000
Winston-Salem, N.C	Rehabilitate teenage violators and ex-convicts			21,000
Portsmouth, Ohio	Train delinquent youth			1,248
Project Jove, San Diego, Calif	Assist persons released from prison		45,268	55,807
Total		2,588,812	2,772,110	5,410,950

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

Employment Assistance Program

The Bureau of Indian Affairs operates an Employment Assistance Program under which vocational training and employment opportunities are provided to Indians. Agency officials told us that Indians being released from prisons were given priority in obtaining assistance under this program. Expenditures for this aspect of the program were $120,000 in fiscal year 1969 and $310,000 in fiscal year 1970 and were estimated to be at least $200,000 in fiscal year 1971. The increase in fiscal year 1970 expenditures was due to the addition of funds from a Law and Order Program, which was primarily enforcement oriented, operated by the Bureau of Indian Affairs. Information was not available to show the amount of Law and Order Program funds that were applied during fiscal year 1971.

CORPS OF ENGINEERS

Rehabilitation Offender Program

The Corps of Engineers established a Rehabilitated Offender Program in June 1966, to aid the criminal offender in making the transition back to civilian life. Under the program a person can be employed on a temporary basis for a maximum of 700 hours. After this, to continue employment, the person must take the civil service test to obtain a civil service rating.

In May 1971 six men were employed under this program, and the fiscal year 1971 cost was $6,300. As of December 1, 1971, the Corps had no one employed under the program. Officials of the Corps told us that they considered only one of the persons enrolled during May to be a quality employee but that, when he had obtained a civil service rating, the Corps was unable to retain him.

ENVIRONMENTAL PROTECTION AGENCY

Physically Handicapped Program

The Environmental Protection Agency operates a Physically Handicapped Program which is designed to hire the physically handicapped and, in general, to convert such persons who are in the welfare and nonproductive categories to productive members of society. This program, which costs about $400,000 annually, has some rehabilitated offenders enrolled.

DEPARTMENT OF AGRICULTURE

Extension Service Programs

Although the education, home economics, and related programs and projects of the Extension Service are not designed specifically for criminal offenders, they could provide benefits to offenders. For example, if there is a women's prison in a county included in the home economics program, representatives of the Extension Service could make visits to the prison to teach sewing to the inmates.

Forest Service Program

The Forest Service operates a part of the Job Corps program which is funded by the Department of Labor. Although some juvenile delinquents have been enrolled in this program by the Forest Service, the program is not designed specifically for such persons.

UNITED STATES POSTAL SERVICE

The Postal Service has no program which is specifically designed for the criminal offender. It does operate programs, however, in which criminal offenders might participate.

Job Opportunity Program

This program has been in effect since 1968 and is funded by both the Postal Service and the Department of Labor. It is designed to help meet the social responsibilities of the Postal Service and the community by providing on-the-job training for various postal-type jobs to persons who would not be recruited otherwise because of economic or social disadvantages. Program participants are required to pass a job-requirement test within 1 year of entering the program. Participants are required also to attend remedial education classes on their own time. Education classes are paid for by the Department of Labor. The Postal Service pays the salaries of participants. The number of participants depends on postal employment needs. As of June 30, 1971, 361 participants were in the program. Persons guilty of minor criminal offenses are eligible for the program. Persons guilty of minor criminal offenses are eligible for the program. Persons guilty of major criminal offenses are not. Program cost data is not readily available.

Postal Academy Program

This program has been in effect since 1970 and is funded by the Postal Service; the Department of Labor; and the Department of Health, Education, and Welfare. Postal employees recruit, motivate, and educate hard-core dropout youths, hoping that the youths will obtain high-school-equivalency diplomas and become productive citizens. Training is conducted in small storefront schools. Part-time postal jobs are available to students during training. As of October 1971, 1,000 students were enrolled in the program. Fiscal year 1971 costs were $3.5 million. The estimated cost for fiscal year 1972 is $3.9 million (55 percent to be contributed by the Department of Health, Education, and Welfare; 35 percent by the Department of Labor; and 10 percent by the Postal Service).

DEPARTMENT OF JUSTICE

Law Enforcement Assistance Administration

The Law Enforcement Assistance Administration (LEAA) has about four program areas in which funds can be expended to benefit the criminal offender. These areas are (1) block grants distributed to States pursuant to part C of the Omnibus Crime Control and Safe Streets Act of 1968, as amended, (2) discretionary grants awarded pursuant to the same part of the act, (3) funds awarded by the National Institute of Law Enforcement and Criminal Justice pursuant to part D of the act, and (4) block and discretionary grants awarded under part E of the act—grants for correctional institutions and facilities.

A summarization of the four areas follows.

Block grants under title I, part C, of the Omnibus Crime Control and Safe Streets Act

LEAA's fiscal year 1972 budget estimates contained the following projection of fiscal

year 1971 block grant expenditures by program areas.

Program area	Percent	Amount
Upgrading law enforcement	14.7	$49,980,000
Prevention of crime	7.0	23,800,000
Prevention and control of juvenile delinquency	8.9	30,260,000
Detection and apprehension	24.9	84,660,000
Prosecution, courts, and law reform	6.1	20,740,000
Correction and rehabilitation	14.9	50,660,000
Organized crime	3.6	12,240,000
Community relations	3.7	12,580,000
Riots and civil disorders	3.4	11,560,000
Construction	7.1	24,140,000
Research and development	3.9	13,260,000
Crime statistics and information	1.8	6,120,000
Total	100.0	340,000,000

Funds are awarded under the block grant program to encourage States and units of general local government to carry out programs and projects to improve and strengthen law enforcement. The basis for an award is a State plan approved by LEAA. At headquarters, however, we were unable to obtain information showing the amount of funds in the aforementioned program areas, which are to be spent to benefit the criminal offender. The block grant program was allocated $24,650,000 in fiscal year 1969 and $182,750,000 in fiscal year 1970.

Discretionary Grants Under Title I, Part C, of the Act

The law authorizes 15 percent of the funds appropriated under part C of the act to be allocated among the States at the discretion of the Administration for grants to State agencies, units of general local government, or combinations of such units. Such awards may be made according to the criteria and on the terms and conditions determined by LEAA. Funds allocated to the discretionary grant program were $4,350,000 in fiscal year 1969, $32,000,000 in fiscal year 1970, and $70,000,000 in fiscal year 1971.

We made an analysis of the discretionary grants approved by LEAA from inception of the program in fiscal year 1969 through November 23, 1971, and found that approximately $25.4 million had been awarded for projects which, in our opinion, would have a direct impact on the criminal offender. The $25.4 million is composed of $189,141 for fiscal year 1969, $6,279,581 for fiscal year 1970, and $18,969,625 for fiscal year 1971.

In our analysis we did not include discretionary grant projects which we interpreted as having an indirect impact upon the criminal offender. Research projects, studies, and projects dealing with the training of criminal justice personnel are examples of such indirect projects.

National Institute of Law Enforcement and Criminal Justice

The purpose of part D of the act is to provide for and encourage training, education, research, and development for the purposes of improving law enforcement and developing new methods for the prevention and reduction of crime and for the detection and apprehension of criminals. The National Institute was established pursuant to part D and received appropriations of about $3 million in fiscal year 1969, $7.5 million in fiscal year 1970, and $7.5 million in fiscal year 1971.

We made an analysis of the projects for which funds were awarded by the Institute during fiscal years 1969, 1970, and 1971, and estimated that about $2.1 million had been awarded for projects which could be interpreted as indirectly benefiting the criminal offender. The projects were basically research projects and would probably not have a direct impact on the criminal offender unless the results of the projects were put into practice.

Grants Under Title I, Part E, The Act

Under this program, which received its initial funding in fiscal year 1971, block grants of one half of the total part E appropriations are made to the States, on the basis of their populations, for projects in the corrections segment of the criminal justice system.

The remaining one half of the part E appropriation is allocated by the Administration at its discretion. In fiscal year 1971, LEAA distributed these funds to the individual States in the form of supplemental awards based on the State planning agencies' statements of planned usage.

Information was not available to show the amount of funds to be spent for projects to benefit the criminal offender; however, a breakdown of the types of programs to be funded and of the approximate amounts budgeted for these activities in fiscal year 1971 follows.

APPENDIX II

	Block grant funds	Discretionary grant funds
Institution innovation	$2,000,000	$3,000,000
Probation and parole	6,500,000	6,200,000
Institution planning and construction	5,700,000	6,400,000
Personnel recruitment and training	2,200,000	1,150,000
Community-based programs	6,000,000	6,300,000
Miscellaneous: Planning administration	1,350,000	700,000
Total	23,750,000	23,750,000
Total 1971 part E appropriation	47,500,000	

Other Bureaus of the Department of Justice

Rehabilitation of Offenders

Prisoners confined in Federal institutions are provided correctional education, welfare services, counseling, psychiatric treatment, etc., to promote rehabilitation prior to their release. Considering and investigating pardon requests, as well as granting parole and supervising and recommending specialized treatment for parolees, are part of the services offered under the offender rehabilitation program. Bureaus operating such programs and the approximate levels of funding follow.

	Appropriation for fiscal year—	
	1970	1971
Bureau of Prisons[1]	$18,305	$20,990
Pardon Attorney	136	141
Board of Parole	895	1,039
Total	19,336	22,170

[1] The total appropriations for the Bureau of Prisons were about $74.9 million in fiscal year 1969, $87.6 million in fiscal year 1970, and $120.2 million in fiscal year 1971. In this report we included only those funds that we could identify as being expended for programs and projects to benefit the criminal offender.

Treatment of Narcotics and Dangerous Drug Offenders

Offenders who are addicted to drugs are given specialized treatment while in confinement, and upon release they are provided with community aftercare treatment and supervision to thwart their return to drug abuse. For this the Bureau of Prisons was appropriated $1,844,000 and $2,428,000 for fiscal years 1970 and 1971, respectively.

Federal Prison Industries, Incorporated

Federal Prison Industries, Incorporated, a wholly owned Government corporation, was established to provide training and employment for prisoners confined in Federal correctional institutions.

Congressional authority establishing the corporation requires it to (1) operate a diversified program of industrial production to offer the least possible competition to industry and labor, (2) restrict the sale of goods and articles manufactured in the corporation's shops to departments and agencies of the U.S. Government, and (3) provide a system of wage incentives and a program of industrial and vocational training so that inmates returning to society may be able to become more economically self-sustaining and productive citizens.

During fiscal year 1971 the corporation had sales of $44.5 million to Government agencies compared with $52.3 million during the preceding fiscal year. The corporation's net industrial profit for fiscal year 1971 was about $5 million compared with about $10 million for the prior year. The Federal correctional institutions' vocational training programs are funded from industrial profits.

JUDICIAL BRANCH

Federal Probation Service

Probation officers render service by making presentence investigations and by supervising probationers. They transmit copies of these investigations of offenders to Federal institutions to assist in their classification and treatment programs. Probation officers serve as liaison with inmates' families, assist in prerelease planning, and supervise offenders after release.

Besides the above-listed duties, the probation officers also assist with release planning and are responsible for parole supervision of inmates from military disciplinary barracks.

The total appropriation for fiscal year 1971 amounted $17,500,000.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Model Cities Program

The only Department of Housing and Urban Development (HUD) program which includes activities having an impact on the criminal offender is the Model Cities Program. Each of the 147 cities participating in this program have established projects which deal with a variety of activities and include economic development, manpower and training, and health care activities.

The Demonstration Cities and Metropolitan Development Act of 1966 established the Model Cities Program to improve the living environment and the general welfare of people living in slums and blighted neighborhoods in selected cities of all sizes in all parts of the country. The program calls for a comprehensive attack on the social, economic, and physical problems that exist in these cities, through the effective concentration of Federal, State, and local efforts. A typical model cities program will include projects to deal with education, health, social services, recreation and culture, crime and delinquency, manpower and job development, economic and business development, transportation and communications, and housing relocation.

Under the program cities are awarded supplemental grants by HUD to implement the execution phases of their comprehensive demonstration programs. These funds—which are to be used primarily for new and additional projects or as the non-Federal share required under other programs—are in addition to the resources available under Federal and State categorical grant programs and funds that are provided by local public and private agencies.

From inception of the program through June 30, 1971, about $1.7 billion was appropriated for supplemental grants. Of this amount HUD awarded grants totaling $1 billion, of which $375 million was expended by the cities. Of the total funds, about $50 million—$9.8 million in fiscal year 1969, $12.5 million in fiscal year 1970, and $27.7 million in fiscal year 1971—was expended for projects relating to crime and delinquency, as follows:

Research and development in the administration of justice.

Public education on law observance, law enforcement, and crime prevention.

Rehabilitation of alcoholics and narcotic addicts.

Prevention and control of juvenile delinquency.

Education and training of State and local enforcement officers.

General police activities.

Providing criminal-law advice and assistance.

State and local correctional projects.

State and local planning projects for crime reduction.

From the above, it is apparent that not all the projects funded with model cities supplemental funds for crime and delinquency purposes relate solely to criminal offenders that have been brought into the criminal justice system. Services and assistance provided under the Model Cities Program, however, include projects which deal with criminal offenders. Examples of several projects which fall into the latter category are described below.

COMMUNITY ADJUSTMENT SERVICES BUREAU AND REHABILITATION PROJECT ON JUVENILE DELINQUENCY—NORFOLK, VA.

This is a project which serves juvenile offenders in lieu of traditional sentencing alternatives. Services provided under the project inclued counseling, employment and vocational rehabilitation, diagnoses and referral, and programs for youth involvement that are alternatives to the court process. Proposed funding for the project included $75,238 from model cities supplemental funds and $187,670 from Law Enforcement Assistance Administration and Department of Health, Education, and Welfare grants.

HALFWAY HOUSE FOR ADULTS EX-FELONS (PROVIDENCE, RHODE ISLAND)

This is a project which assists ex-felons, either in the prerelease or postrelease status, in their adjustment so society, through economic and vocational assistance. Specific objectives of the project include: (1) strengthening crime prevention and control by facilitating the change from the penal institution to society via the halfway-house concept, (2) providing a method for bonding ex-felons in order that they may gain meaningful employment, and (3) rendering counseling services geared to aid ex-felons in adjusting to society. The 1971 plans called for this project to be funded with $20,524 from model cities supplemental funds and an $85,505 Law Enforcement Assistance Administration grant.

WORK RELEASE PROJECT (NEW YORK—CENTRAL BROOKLYN—NEW YORK)

This is a project which provides for (1) creating a series of community-based rehabilitation centers for inmates, (2) coordinating the many rehabilitation services now operating in the community, and (3) increasing the supportive services available to offenders and increasing community involvement in the rehabilitation process. The project was to be funded from model cities supplemental funds for about $341,000.

Mr. PERCY. I have also contacted members of the legal community in my own State of Illinois about my bill, S. 3185, and I have received many letters from them. About 90 percent of the responses favored the bill. Mr. President, I ask unanimous consent that the correspondence I have received be printed in the RECORD at the conclusion of my remarks.

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

(See exhibit 1.)

Mr. PERCY. Mr. President, I am gratified that the problems of our prison system are receiving increasing attention in the Congress and I hope we can move ahead with legislative solutions to these problems.

EXHIBIT 1

BAILEY, ALCH & GILLIS,
ATTORNEYS AT LAW,
Boston, Mass., June 26, 1972.

Hon. CHARLES PERCY,
U.S. Senator, U.S. Senate Office Building, Washington, D.C.

DEAR SENATOR PERCY: Thank you very kindly for your letter of June 13, 1972, the copy of S. 3185, and your remarks before Subcommittee 3 of the House Judiciary Committee. I have read the proposed amendment several times, and must say that I think its provisions drive directly at the jugular of some of the worst ills of our criminal justice system. I believe that your contention before the Subcommittee that parole reform could not meaningfully be accomplished independent of the other reforms which the amendment covers is a most telling point, and I hope that it won concurrence.

I am, of course, in complete agreement with your suggestion that proven businessmen be called upon to industrialize the workforce now stagnating in our correctional system. Such a step would, in essence, replace a sour negative with a thumping positive and supplant despair with hope and promise. I would be most happy to testify at the hearings you have described, or to lend support in any way I can.

Thank you once again, and I hope this letter finds you in good health and good spirits.

Sincerely,

F. LEE BAILEY.

THACKER AND NORDEN,
Kankakee, Ill., June 15, 1972.

Hon. CHARLES H. PERCY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR PERCY: Thank you for your letter of June 7, 1972, addressed to Illinois Lawyers regarding your proposed "Federal Corrections Reorganization Act".

I am the Public Defender of Kankakee County, Illinois, and am, therefore, responsible for representing all indigent defendants from a population in excess of 100,000 people. Such a position gives one an excellent opportunity to evaluate the system of criminal justice on the State and local level. Although I feel that any Public Defender would be qualified to write a treatise on the ills and evils of the criminal justice system, I would concur with you in that the penal system, both Federal and State, is in need of some direction and unification.

One of the saddest things about the criminal process is the problem of recidivism. I personally feel that this is, in part, a result of the lack of reasonable alternatives once a person has been convicted of an offense or is about to be convicted of an offense. A convicted person either is put on probation or sent to prison. Probations staffs, as a rule, are severely understaffed and the probation service usually amounts to nothing more than filing a monthly written report on each probationer. Probation, or Court supervision as the case may be, seems to me to be the most likely vehicle to accomplish anything on an individual level. The only possible way that this could be done is through substantial spending on the State and Federal level.

For the foregoing reasons, I would concur with your proposed Corrections Act and urge that it be enacted into law. I would suggest, however, that the advise and counsel of those who represent indigent defendants be sought at all steps along the way. I truly feel that Public Defenders, individually, and as a group, would continue their advocacy on behalf of indigent accused persons.

Please feel free to make whatever use you deem fit of these comments.

Sincerely yours,

DENNIS A. NORDEN,
Public Defender of Kankakee County.

HANLEY, PHILLIPS, TRAUB & AHLEMEYER, ATTORNEYS AT LAW,
Fairbury, Ill., June 15, 1972.

Hon. CHARLES H. PERCY,
U.S. Senator, Committee on Government Operations, Washington, D.C.

DEAR SENATOR PERCY: I am replying to your letter of June 7, 1972. I think your recommendation for improvement in our parole system is a move in the right direction.

I am glad to see that you are concerned about this problem. Unless drastic improvement is made in our entire penal system, the disintegration of our society will accelerate.

I think your proposed legislation will be a step towards improvement of our rehabilitation procedures.

Yours very truly,

HENRY W. PHILLIPS.

P.S.—You may cite my comments, if desired.

ROBERT H. WHITE,
Geneseo, Ill., June 27, 1972.

Senator CHARLES H. PERCY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR PERCY: I have recently received your communication dated June 7, 1972, which discusses the Federal Corrections Reorganization Act introduced by you in the Senate.

While I am not familiar in detail with the provisions of this act and have very little personal contact with criminal matters, nevertheless the procedures as provided in this act as summarized by you would be a very substantial improvement over the present system.

For some time now it has seemed to me as though one of the urgent priorities facing us is the matter of rehabilitation of first offenders. There have been many developments in techniques of rehabilitating and treating people in the past ten to fifteen years and many of these new techniques should be put in effect I believe in our penal system. This can only be done if there are proper facilities for the prisoners and also proper supervision both while in the prisons and while on parole.

I strongly support your efforts to create improvements in this area of our national life.

Sincerely,

ROBERT H. WHITE,
Attorney at Law.

EUGENE D. KAINE,
ATTORNEY-AT-LAW,
Broadview, Ill., June 22, 1972.

Hon. CHARLES H. PERCY,
U.S. Senator,
Washington, D.C.

DEAR SENATOR: I am delighted with your bill for prison reform, inasmuch as I feel it is an absolute need from a humanitarian standpoint, as well as in the best interests of society.

Sincerely yours,

EUGENE KAINE.

THOMAS A. LE CHIEN LTD.,
ATTORNEY-AT-LAW,
Belleville, Ill., June 14, 1972.

Hon. CHARLES PERCY,
U.S. Senate,
Washington, D.C.

DEAR MR. PERCY: I have your letter of June 7, 1972 concerning your proposed bill to es-

tablish a Federal Circuit Offender Disposition Board.

I would be opposed to a Board which would in any way interfere with the judicial determination of whether or not an offender receives probation or a jail sentence. I believe that this function is best left to the Court. Your proposed bill would offend our time honored judicial processes.

I believe that bail should also be a matter of discretion for the U.S. Magistrate or Judge.

I think your Board would be very useful in its functions after sentencing and as an excellent manner of determining whether a man is eligible for parole. I would certainly feel that your Board would have no authority and could not properly advise or make recommendations as to whether an offender should stand trial. Certainly the expansion of any job training or placement program for rehabilitation of a convicted person would be extremely useful.

If there is to be any progress in our penal system, I think it would have to come from the understanding of the problems of the convict. I don't believe, however, that your Board will legitimately have any function in the area of legal advise or recommendation to the Court prior to conviction except where probation is requested.

Yours very truly,

THOMAS A. LE CHIEN.

FARMER CITY, ILL., *June 9, 1972.*

Re the Federal Corrections Reorganization Act.

CHARLES H. PERCY,
U.S. Senator,
Senate Office Building,
Washington, D.C.

DEAR SENATOR PERCY: I have just received and read your newsletter in regard to the above proposed legislation and I wish to state to you my approval thereof.

I have spent a great part of my time during the past 15 years acting as defense counsel in East Central Illinois Courts, and am now unopposed as candidate for State's Attorney of DeWitt County. It has long been my feeling that the neglect of proper personnel, procedures, facilities, coordinated assistance in the rehabilitation of the convicted amounts to a national disgrace. Too many people consider justice served when court room procedure is concluded, when in reality this is only the beginning of what should be an integrated system to promote law and justice.

It does appear that there is one field in the area of criminal law which needs be properly financed and developed beyond what is in your proposed legislation and that is the science of 'preventative criminology'. I do feel that this could prove as important and valuable to our future as has been the great progress made in the area of preventative medicine. It has long been my feeling that in many cases the criminal to be could be determined and perhaps helped through the development and use of state and federal psychiatric centers and services, especially among youth. This could well involve the coordination of our educational institutions and our courts as well as mental health facilities.

Since crime is our most costly social disease draining off billions from our economy each year, it would appear that a few million spent in the area of 'preventative criminology' would be well spent. You have my full permission to use this letter in any way you please, and I wish you success with the passage of your proposed legislation.

Respectfully yours,

ROBERT G. GAMMAGE,
Attorney at Law.

JAMES E. BUCHMILLER,
ATTORNEY AT LAW,
Greenville, Ill., June 12, 1972.

Hon. CHARLES H. PERCY,
U.S. Senate, Committee on Government Operations, Washington, D.C.

DEAR SENATOR PERCY: In reply to your letter of June 7 to Illinois lawyers it appears to me that you are definitely making a step in the right direction. It is obvious that the present system is not working and cannot work.

It would be most helpful if the plan could go farther. Unfortunately, the public attitude seems to be that we can solve the crime situation simply by locking up more people for greater lengths of time and if anything treating them with less consideration. They obviously are not educated to the facts.

In my opinion, it will require a monumental effort to correct the situation which no doubt would be tagged as radical by many. To be specific, the institutions themselves must be modernized both as to plant and as to management. These people cannot be simply locked up and forgotten under maximum security and then suddenly one day released to the public.

In other words, there must be a gradation and a real desire and effort towards rehabilitation. This means more effort including personnel and facilities such as the "Halfway House" that has received some attention in St. Louis. Also, the personnel and system must furnish employment, education and guidance from the moment of incarceration to the moment of final release. It would also seem logical that release must be a gradual thing and that a prisoner, assuming that he is deserving and progressing, would progress from perhaps maximum securtiy to a situation of relative freedom up to a point of release. As you know, there has been no effective efforts along these lines and it must be done if the situation is to be solved. Thank you for your interest.

Sincerely,

JAMES E. BUCHMILLER.

JOHNSON, MARTIN & RUSSELL,
ATTORNEYS AT LAW,
Princeton, Ill., June 12, 1972.

Hon. CHARLES H. PERCY,
Senate,
Washington, D.C.

DEAR SENATOR PERCY: I have your letter dated June 7, 1972, relative to the "Federal Corrections Reorganization Act" that you recently introduced in the Senate.

I wish to commend you in bringing this matter to the attention of the Senate. Certainly some reforms are long past due. The plan outlined in your letter seems feasible and, as you state, may not be a panacea, but certainly should be an improvement over the present system. There is a certain amount of experimentation that will probably be required in order to devise a satisfactory plan and this is a good start toward improvement.

Sincerely yours,

FRED G. RUSSELL.

WALKER & WILLIAMS,
ATTORNEYS AT LAW,
Belleville, Ill., June 12, 1972.

Senator CHARLES H. PERCY,
U.S. Senate,
Committee on Government Operations,
Washington, D.C.

DEAR SENATOR PERCY: I have reviewed your letter of June 7, 1972 pertaining to the proposed bill to establish a federal circuit offender disposition board.

I believe it to be a tremendous improvement to our present system. When 65% of all who serve a prison term are ultimately returned to prison and where 80% of our crimes are committed by ex-convicts, and where the system does not appear to be remedying that deplorable situation; it is time to restructure the penal machinery.

Very truly yours,

MARTIN W. IMBER.

DENZ, LOWE, MOORE & RODGERS,
LAWYERS,
Decatur, Ill., June 12, 1972.

Hon. CHARLES H. PERCY,
Senate Office Building,
Washington, D.C.

DEAR SENATOR PERCY: Thank you for including me in your June 7 mailing concerning "the Federal Corrections Reorganization Act" which you have introduced in the Senate.

Although I am engaged primarily in a civil practice, I am aware, as I think all practicing lawyers and judges must be, that too little time and attention is being given to rehabilitation and positive placement of offenders after incarceration.

Regrettably, I think that too many people involved at the various levels of "criminal justice" indulge in a presumption (continually reinforcing itself through the inadequacy of the system) that criminals are simply criminals. It seems to me that your bill, as outlined, provided the Disposition Boards are well chosen, would do much, at the federal level at least, to have the offender given the most positive assistance toward rehabilitation and placement in the mainstream of society.

We often hear about *returning* ex-offenders to society. That, of course, is just what we do not want to do, for it was the society from which they came that brought them to the courts in the first place. Your bill, properly implemented, should insure that this does not happen.

I should think that this new proposed legislation could also be viewed favorably by those who do not feel a responsibility for successful rehabilitation of those convicted of crime. If no attention is given to the problem, our criminal justice system and our penal institutions will continue to produce a proliferation of criminals. There is a real physical and economic limit to the number of our citizens we can maintain and retain in prisons. They *will* be released. Would it not be safer for everyone if they were released better equipped to succeed in society?

In this, as with housing, you continue to come to grips positively with the serious problems of our society. The country is indeed fortunate to have the benefit of your statesmanship.

Sincerely,

DANIEL M. MOORE, Jr.

MEYER & MYER,
LAWYERS,
Flora, Ill., June 9, 1972.

Re Federal Corrections Reorganization Act.

Hon. CHARLES H. PERCY,
Senate Office Building,
Washington, D.C.

DEAR SENATOR PERCY: I'll go along with you on everything contained in your letter of June 7th regarding the Federal Corrections Reorganization Act except the fifth paragraph on page 2 of your letter. We have 1000 too many federal boards and councils now. We sure don't need any more. Not one.

Yours very truly,

RALPH G. MEYER.

U.S. ASSISTANCE TO BANGLADESH

Mr. KENNEDY. Mr. President, in light of the continuing interest among Amer-

icans over conditions in Bangladesh and the future of that country, I would like to share with Senators a recent letter and report I received from Mr. Maurice J. Williams, AID coordinator of U.S. disaster relief assistance for South Asia. Mr. Williams' letter and report is an end-of-fiscal-year review of U.S. relief assistance roughly coinciding with Bangladesh's first 6 months of independence.

Mr. Williams' letter and report indicates that relief help to Bangladesh since independence now totals over $800 million—of which the United States has provided some $267.5 million. Nearly half of the U.S. commitments, some $132 million are being used for food commodities and logistical support for moving these commodities under United States auspices. Another $115 million has been allocated directly to the Bangladesh Government for general reconstruction and development purposes. And some $19.5 million has been given in grants to the private voluntary agencies.

In this connection, I want to pay special tribute to the humanitarian contributions being made by the voluntary agencies. There is, perhaps, no better expression of the American people's concern for Bengalis than the dedicated efforts of the voluntary agencies' personnel in the field. In addition to those agencies whose work is supported by U.S. Government grants, there are a number of agencies—including the Salvation Army and others—whose work depends solely on private contributions. A recent report compiled by AID estimates that these private contributions from all voluntary agencies have totalled some $12,500,000 since early 1971.

The Judiciary Subcommittee on Refugees, of which I serve as chairman, has closely followed developments in South Asia, since the early days of the repression and civil war in East Bengal. With the birth of Bangladesh, we have continued our interest, and have strongly advocated every possible effort to encourage this new nation. I feel important progress has been made, and I especially want to commend the Agency for International Development for its sympathetic and active concern in promoting the welfare of the Bengali people and the stability of Bangladesh and all of South Asia.

Our Government has already attempted to normalize relations with Pakistan and, hopefully, we will also begin to make progress in restoring our good relations with India, where the pain of our "tilt" and the neglect of our Government's concern last year has left bitter memories. I would urge the administration and AID to take the initiatives in reestablishing productive U.S. assistance programs in India and renewing important educational and cultural ties with the Indian people.

Mr. President, I ask unanimous consent that Mr. Williams' letter and report, as well as the report on private contributions, and some recent press articles, be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

AGENCY FOR INTERNATIONAL DEVELOPMENT,
Washington, July 14, 1972.

Hon. EDWARD M. KENNEDY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR KENNEDY: Since independence, Bangladesh has faced staggering problems of relief and reconstruction. Although much of the war-damaged economy has not yet recovered and agricultural production is still below normal, substantial progress has been made. In particular, widespread starvation is no longer an immediate threat and the country's internal distribution system has been partially restored.

The degree of recovery which has taken place is due to the resilience of the Bengali people, to the leadership of Mujib in establishing a functioning government, and to massive relief assistance from many countries.

Relief help to Bangladesh since independence now totals over $800 million—of which the United States has provided $267.5 million or one-third of the total. The attached paper briefly describes the nature of U.S. assistance to Bangladesh. It is an end-of-fiscal year review of the period roughly coinciding with Bangladesh's first six months of independence.

Sincerely yours,
MAURICE J. WILLIAMS,
Coordinator of U.S. Disaster Relief Assistance for South Asia.

U.S. ASSISTANCE TO BANGLADESH—THE FIRST 6 MONTHS

Bangladesh came into existence facing staggering difficulties. Its initial success in meeting these difficulties has been due in great measure to the generous humanitarian response of many countries which have provided foods, raw materials for industry, transport and other urgent assistance amounting to about $800 million.

The U.S. has provided $267.5 million or one-third of the total.

Our response to the humanitarian needs of Bangladesh during its first six months of independence has been three pronged:

PL 480 food and grants to move food, primarily under UN auspices, to counter the immediate threat of hunger ($132 million);

Grants to U.S. voluntary agencies to assist in resettlement of thousands of Bengalee families ($19.5 million);

Help to the Government of Bangladesh to restore basic facilities and rehabilitate the economy ($115 million).

Seven hundred thousand tons of PL 480 foodgrains and edible oil, valued at $88.2 million, have been committed since March. At the discretion of the Government of Bangladesh, this food is distributed free to returned refugees and other destitute families or sold so that the proceeds provide employment opportunities for the people on labor-intensive projects.

A grant of UNROD of $35 million helps with the cost of logistical support directly related to the movement of food into the country. These funds have been spent largely for chartering river transport needed to supplement the extensively-damaged rail and road transport system. In addition, our grant—which accounts for over 50 percent of UNROD's total cash resources—has been used for vacuvators and cargo handling equipment to expedite food deliveries.

More recently, A.I.D. financed the services of the *Manhattan*, the U.S.'s largest merchant vessel, to serve as a floating silo and thus expedite the handling of incoming shipments of food. Also we have chartered aircraft to airdrop food in isolated villages during the monsoons. Although these services are not included in our grant to the UN, they directly support the UN-sponsored food relief program and are under the control of UNROD.

Through a series of grants totalling almost $20 million, we have recognized the important role U.S. voluntary agencies perform in responding rapidly to urgent human needs. They have focused on the rehabilitation of individual families who lost their homes, possessions and means of livelihood. A large part of these funds—through CARE, Catholic Relief Services, Church World Service, Medical Assistance Programs and the Community Development Foundation—are to provide construction materials and other assistance in the rebuilding of thousands of homes. Almost two million Bengalees who were without shelter have directly benefited from this U.S. assistance. Voluntary agencies also are providing medical care and distributing tools, bullocks and equipment to thousands of farmers, fishermen, tradesmen and small businessmen so that they can become self-sufficient. Through the International Rescue Committee we have supported the important work of the Cholera Research Laboratory and provided stipends to permit students to resume their studies. A grant to the American Red Cross furthered the work of the International Committee of the Red Cross among the minority population and other specially needy groups in Bangladesh.

The third prong of our assistance has been direct bilateral grant aid of $115 million to the Government of Bangladesh to finance the rehabilitation of basic facilities and to rehabilitate the economy. These funds are for the importation of commodities—such as cotton, tallow, fertilizer, and pesticides—to revive local industry and to increase food production. Our grant also finance repair and construction of coastal embankments, restoration of power supplies, rebuilding of roads and bridges, rehabilitation of airports, reconstruction of schools, the procurement and printing of textbooks and library materials lost during the civil war, as well as in other priority areas in which U.S. contractors have the expertise and prior experience to do a job quickly and well.

The grant finance urgently needed project equipment, but a significant portion of these funds is for local costs, particularly labor and locally available materials and services, and the dollars to purchase local currency used for additional priority commodity imports from the United States. By such arrangement our grant assistance serves directly to stimulate the economy and generate employment, while also ensuring that a large part of the dollars we spend ultimately comes back to the United States.

In FY 1972, the U.S. Congress appropriated $200 million for emergency relief in South Asia—$27.7 million was committed for relief needs prior to the emergence of Bangladesh as an independent country and $172.2 million since that event. Other U.S. commitments to Bangladesh include $4.6 million from the FY 1972 Contingency Fund and $90.7 million in PL 480 resources—for a total U.S. commitment to Bangladesh since independence of $267.5 million.

For FY 1973 the Administration has requested a further $100 million to permit the U.S. to do its proportionate share in this large scale humanitarian endeavor, which will require a sustained international effort of rehabilitation assistance over the next year.

To summarize, U.S. Government assistance for Bangladesh during the first six months has been as follows:

[In millions of dollars]

Food and logistical support for moving of food, mainly through the U.N.:	
700,000 tons of Food for Peace	$88.2
High protein food for UNICEF child feeding	2.5
Grant to the U.N.	35.3
S.S. *Manhattan*	4.0
Airdrop services (Southern Air)	2.0
Subtotal	132.0
Grants to Voluntary Agencies:	
CARE—housing	5.3
Catholic Relief Services—housing and rehabilitation	8.0
Church World Service—housing	1.0
American Red Cross—nutritional and medical assistance	$1.0
Community Development Foundation—housing	.2
Medical assistance programs—medical and housing	.9
Foundation for Airborne Relief—airdrop services	1.5
International Rescue Committee—educational and health services	1.6
Subtotal	19.5
Grant to the Government of Bangladesh for following purposes:	
Essential commodiey imports	34.4
Repair of coastal embankments	15.0
Rehabilitation of power stations and lines	$16.3
Rehabilitation of schools and libraries	13.3
Canal excavations, inland waterways and dredging	6.0
Rural health centers	5.0
Reconstruction of bridges, roads, airports and other needs to be defined	25.0
Subtotal	115.0
Other Relief Assistance	1.0
Total	267.5

REPORT NO. 15

CUMULATIVE REPORT BEGINNING JAN. 1, 1971, OF U.S. VOLUNTARY AGENCIES' ASSISTANCE IN EAST PAKISTAN/BANGLADESH, EXCLUSIVE OF U.S. GOVERNMENT DOLLAR GRANTS AND VALUE OF PUBLIC LAW 480 FOODS

Type of assistance	Agency	Cash	Value
Orphans	ACR	$34,500	
	AFSC	120,000	
Support LICROSS/ICRC medical and photographic supplies.	ANRC	230,075	$97,730
	AOG	8,560	
	BDF	18,686	
	BWA	16,357	
Housing demonstration projects; relief and supplies.	CARE	2,137,000	250,000
Children's institutions	CCF	68,271	
Community development aid—training of trainers and child family community sponsorship.	CDF/SCF	165,000	
Relief, community development, agricultural and housing projects.	CRS	1,064,000	1,164,255
	CRWRC	12,000	
Blankets and reconstruction projects	CWS	765,780	36,400
Medicines	DRF		45,000
Co-ops and FAR	ERF	135,000	
	FMB/SBC	111,500	
	ICF	19,022	
Health and education programs	IRC	$370,000	
Reconstruction and rehabilitation projects	LWR	277,000	$30,000
Medical supplies	MAP	42,452	1,205,029
Cash and relief supplies	MCC	311,000	365,942
Rehabilitation and transportation	OXFAM (America)	250,000	
Rehabilitation programs	SA	40,000	
Relief supplies, boats and nets, clothing, medicines.	SAWS	74,100	173,000
	UCBWM	90,000	
Cash for local purchase of clothing, boats, livestock and housing projects.	WRC (N.A.E.)	110,000	
Assistance to students	WUS	2,080	
Food, agricultural and educational supplies	WVRO	126,000	
Relief	YMCA International Committee.	590	
Total		6,598,973	3,367,356
Estimated value of accumulated contributions in kind.			2,500,000
Grand total			12,466,329

Note: This cumulative report started on Jan. 1, 1971, and continued Apr. 16, 1971, when the voluntary agencies discontinued their operations because of civil unrest in East Pakistan. It was resumed on Sept. 3, 1971, and estimated contributions in kind, $2,500,000 from Jan. 1, 1971 through Dec. 15, 1971, are included in the grand total.

KEY TO ABBREVIATIONS—VOLUNTARY AGENCIES

ACR—Americans for Children's Relief.
AFSC—American Friends Service Committee.
ANRC[1]—American National Red Cross.
AOG—Assemblies of God.
BDF[1]—Bangladesh Foundation.
BWA[1]—Baptist World Alliance.
CARE—Cooperative for American Relief Everywhere.
CCF—Christian Children's Fund.
CDF—Community Development Foundation.
CRS—Catholic Relief Services—USCC.
CRWRC—Christian Reformed World Relief Committee.
CWS—Church World Service.
DRF—Direct Relief Foundation.
ERF[1]—Emergency Relief Foundation.
FMB/SBC[1]—Foreign Mission Board of So. Baptist Convention
ICF[1]—International Christian Fellowship.
IRC—International Rescue Committee.
LWR—Luthern World Relief.
MAP—Medical Assistance Programs.
MCC—Mennonite Central Committee.
SA—Salvation Army.
SAWS—Seventh-day Adventist Welfare Service.
UCBWM[1]—United Church Board for World Ministries.
WRC—World Relief Commission.
WUS—World University Service.
WVRO—World Vision Relief Organization.
YMCA—Y.M.C.A.—International Committee.

[1] Not registered with the Advisory Committee on Voluntary Foreign Aid.

[From the Christian Science Monitor, July 13, 1972]

MUJIB BUILDS CONFIDENCE: BANGLADESH TURNS INTO GOING CONCERN

(By Henry S. Hayward)

DACCA.—One-half year after its Prime Minister was sworn in last January Bangladesh is a going concern.

The government of Sheikh Mujibur Rahman has expanded and consolidated its control over a nation of 75 million people.

It is currently cracking down on weapons illegally retained by its citizens, checking up on stolen cars, and hauling away a wide assortment of black-market commodities during special curfew operations.

Most people here have ceased to count the number of world nations recognizing Bangladesh. The government now looks hopefully to United Nations membership this autumn.

ROUTINE AFFAIRS EXECUTED

Government ministers and civil servants have settled down to handling the nation's everyday affairs, which had been almost totally suspended during the latter days of the Bengali liberation struggle and the India-Pakistan conflict last December.

Public confidence in the government's leadership epitomized in the person of Bangabandhu [friend of Bengal] Sheikh Mujibur Rahman and in the government's ability to govern, has continued.

Food is coming in and rice prices are no longer rising, except in isolated pockets of shortages. The prospect of a widespread famine in Bangladesh has receded to the point where aid officials are confident it can be avoided except in some hard-to-reach areas—barring major catastrophes and distribution kinks.

Armed guerrilla freedom fighters are disappearing from the public scene, and the country's new armed forces are conducting themselves in orderly fashion. Uniformed men greet the Prime Minister wherever he goes on his frequent trips around the country. So do large crowds which testify to his continued personal popularity.

Very slowly, but nevertheless noticeably, the many destroyed bridges are being rebuilt. One coming back here after five months notices the differences. Rough streets in Dacca are being repaved bit by bit.

Thus anyone charting Bangladesh progress has to concede progress has indeed been registered here. The general outlook seems significantly, measurably, visibly improved.

MORE CONTROL INDICATED

But veteran informants also add a firm note of caution. Progress is visible, but not sensational. The country is still balanced on a knife edge. One source, who gave Bangladesh only a 50-50 chance of survival last March, raised his sights to 52-48 in favor last April, then to 55-45 in June, and has just raised the figure to 57-43 in favor. Progress, in short, is still gradual in these early days of nationhood. It has been inching upward about one point a month, according to this rough reckoning.

Sheikh Mujib is reported by intimates to feel good about the present state of affairs. His personal appearances have gone well. He no longer is worried about the food situation. He now has turned his domestic concern toward improving the country's agricultural output.

He urges his people to show discipline and good character. Give me "sonar manush" [men of pure gold] to build sonar Bangla [a golden Bangladesh], he says.

Some Western observers, meanwhile, say the Prime Minister today seems to have the country more firmly under his control than one month ago. They credit his slight dip in popularity then to food shortages and lack of law and order. Both these difficulties now have been improved.

Nor does Sheikh Mujib have any visible rival for power. No opponent of any stature has emerged. Even the students who pin-

prick him are basically for him. And he handles them with tolerance and understanding, as befits the Bangabandhu.

He is, however, an intuitive political leader, not a polished government operator, not deeply knowledgeable about the socialism and democracy his government professes as two of its four pillars.

The other two are secularism and nationalism, with which the Sheikh is indeed familiar.

"As long as he follows his instincts about what the people want," says a Dacca Bengali, "he will be all right. But, if he loses that touch, then he may get into trouble."

[From the Christian Science Monitor, July 24, 1972]

U.S. South Asian Aid Gropes Back

(By Lucia Mouat)

WASHINGTON.—Today, six months after the devastating Indo-Pakistani war came to an end and the world's newest nation—Bangladesh—emerged, economic repairs are well under way.

Normalcy is also slowly returning to the U.S. contribution to the south Asian relief-development effort. Although $87 million in loans to India remains suspended, economic aid to Pakistan has been resumed and relief grants continue to flow generously to Bangladesh.

Throughout the nine-month struggle for Bangladesh autonomy, charges were rife that the highly publicized, but officially denied, U.S. "tilt" toward Pakistan was taking on telling color in the form of U.S. aid policy.

Though new licenses and renewals on military sales were out, military hardware already in the pipeline and still purchasable under existing licenses moved uninterrupted to Pakistan until late fall, when Congress played a role in forcing a total cutoff. More recently there have been charges that U.S. planes purchased by Libya and Jordan were transferred to Pakistan for military use (without Washington's endorsement) and that U.S. emergency economic aid to Rawalpindi was misspent for military purposes.

THE $185 MILLION WAS NOT CUT

When India openly entered the south Asian conflict last December, the Nixon administration announced the suspension of $87 million in loans promised India but not yet firmly committed in a banking sense. Another $185 million in committed project and commodity loans and food for peace grants was not cut. One aid expert explains that the legal grounds were there but the result would have been an "administrative monstrosity."

The official explanation of continued suspension of the $87 million is that the policy is "under review" but that conditions in India are really no more stable than they were in war days and that there can be no assurance yet that the funds will be spent effectively for purposes intended. Those who press the point are reminded that the President has been extremely busy with other foreign-policy matters.

Some critics, however, find it ironic that Washington has been working so hard to warm up economic ties with Communist Peking, Moscow, and Eastern Europe, yet finds itself unable to resume aid to a democratically very much in need of help.

TWO-PARTY TALKS COMING

The common assumption here is that the administration is holding off at least until the Pakistani-India talks scheduled to begin June 28. While India is unquestionably the dominant party, the United States would presumably like to make sure, if it could, that India's added power edge does not make it also domineering. Says one long-time observer of the U.S. role in south Asian development, "I'm sure if [Pakistani President] Bhutto and Mrs. Gandhi had a love feast, that would change things." Many here question just how much leverage, if any, the U.S. holdout can exercise on the situation.

Certainly the U.S. failure to resume full aid to India has been confusing for other members of the world's aid-giving, global consortium who met last week in Paris. These were urged by a World Bank spokesman to understand that, although the U.S. has been providing the bulk of development aid to India, the proportion is expected to lessen and the other countries should proceed independently. Though budget cycles of the various donors differ, some $300 million for India was pledged at the meeting.

Throughout the 1960's, Washington has contributed about 60 percent of the total aid channeled to India and Pakistan and would like to bring its share closer to a less dominant one-third.

Although the Nixon administration, on the advice of development experts, is trying to steer more of its bilateral aid into multilateral channels, it is effectively following a reverse policy in Bangladesh. Giving through the United Nations is not out, but the fact is that the U.S. has been serving up more than two-thirds of the total UN aid, whereas such countries as India, the Soviet Union, and Australia give substantially but bilaterally.

U.S. help to Bangladesh, in accord with emergency congressional appropriations, has been generous. Some $218 million in grants has been given with another $100 million possibly in the offing for the next fiscal year, and, much to the delight of the Bengali recipients, political and economic strings have been few.

HIGH MORALE SEEN

"I've never seen Bangladesh in such good shape in the sense of the tone in government offices," says C. Herbert Rees, head of the Agency for International Development's Office of South Asia Affairs, who has recently returned from a business visit there. "There is a spirit of determination and dedication—and it's highly gratifying to see."

Certainly distribution of aid in all its variations has been and still is a problem in Dacca. During the civil strife, food didn't always get to those who most needed it. Several shiploads of grains were diverted because of harbor congestion to such countries as Indonesia and Afghanistan.

"The main reason there wasn't any famine," admits Mr. Rees, "is that 10 million people went elsewhere. That reduced the number at the table . . . but we actually did deliver 700,000 tons of grain to what was then East Pakistan, and that amount makes the difference between 4 million people eating or not eating. We did great."

TANKER AS A STOREHOUSE

As of August the tanker Manhattan, the largest American merchant ship, will be in the Bay of Bengal to help out as a temporary storehouse for grain deliveries that cannot easily be made along Bangladesh's still disrupted waterways and roads.

[From the Christian Science Monitor, July 13, 1972]

In Bangladesh: Anti-U.S. Sentiment Recedes

(By Henry S. Hayward)

DACCA.—An American here had just explained to a Bengali acquaintance that the United States is rapidly withdrawing from Vietnam, with its troops and ground-fighting activities now down to a bare minimum.

The Bengali put his palms together in a gesture of prayer.

"Promise me," he said, "you will never do anything that minimum to Bangladesh."

The story, which is true, illustrates that Bengalis are sharply critical of the United States role in Vietnam. But their criticism is not limited to that subject. A considerable current of anti-American sentiment has existed here since early this year.

"The anti-American tide definitely is receding now," says one Dacca resident. But he concedes that the turn of the tide occurred only recently—some time after American recognition of Bangladesh in April and the granting of substantial American aid to this country.

Now Bangladesh officials, national and local, are beginning to understand the new American attitude. But the word has not yet reached all the rural areas. Some observers speculate it will take several years before residual resentment wears away completely. And due to a basic difference of systems—this is a people's republic—the United States may become widely unpopular here.

Until recently, almost no word of support for the United States could be found in the Dacca press, which supports three English-language morning dailies and an afternoon two-page sheet, as well as numerous papers in the Bengali language. It was all anti. But now, as one observer put it, "there's at least some debate over who are the bad and good guys." American officials now find local editors much more receptive to American news releases and less inclined to use the Soviet Tass News Agency version of world developments.

Some segments of the Bengali press, however, are virulent enough in their criticism to try to make the recent visit of presidential envoy John B. Connally a sinister event. They reflect Soviet opinion, and some suspect they are subsidized by Soviet funds.

Working in American favor in the recent upward climb are not only the Connally visit, aid appropriations, and recognition—but also traces of Bengali boredom with the Soviets and disillusionment with the Indians.

"The Soviets push too hard and deliver too little in terms of aid," is the way one source explains it. At the same time the Bengalis see not much more in prospect from their Indian friends. Shoddy Indian goods have been coming in, and border smuggling is a problem. Moreover, lots of vehicles and consumer goods disappeared when the Indian armed forces went home, it is claimed.

MASSIVE AID SUPPLIED

At that juncture Uncle Sam began to move in massively with money, food, and all manner of supplies. It made a considerable impact.

"There was no where to go but up," an American declared.

By contrast with some other donors, less skilled in the business, American aid has been—with a few notable exceptions—precise and professional, logical and reasonable. The Bangladesh Government reportedly has been impressed by this U.S. operating experience.

At a Fourth of July reception here, American chargé d'affaires Herbert D. Spivack was pleased to note that he had a house full of Bengalis. Three months ago virtually none of them would have come.

Officials now are understandably worried, lest some new event or announcement in the United States set back the current progress. Otherwise they feel the worst may be over—although more uphill climbing doubtless will be necessary.

Few Americans here have yet encountered any personal antagonism, however. "Americans good, Nixon bad," is the usual taxi-driver comment after ascertaining an American's nationality. For the first time in Dacca, this correspondent was asked if he were a Russian. It probably was a compliment, for the Russians are still popular.

Washington's slowness in the recognition of Bangladesh and its role in the Indo-Pakistan war implanted the idea the United States was hostile to the new nation. Now that hostility is being repaid to a modest extent. The pro-American sentiments that

developed here as a result of American press support for the Bengalis during the dark days of the liberation struggle were just about wiped out.

Even now, the U.S. is often coupled with Communist China. In fact "Sino-American imperialist agents" sometimes are accused of fomenting trouble here. How the Chinese, who call the Russians "social imperialists," like being called imperialists themselves and being classed with the Americans is not recorded.

In leftist quarters, American aid is written off as largess from a rich country, which conceals an effort to attach political strings to Bangladesh. Fortunately for the American position, the Prime Minister, Sheikh Mujibur Rahman, knows where the money so desperately needed by Bangladesh is coming from.

Some say Shiekh Mujib has not hesitated to rebuke his more extreme Cabinet ministers for their anti-American views.

Mr. Connally's visit broke the ice with favorable front-page newspaper and television displays. After his departure, one newspaper, called The People, even accorded the Nixon emissary a carefully hedged editorial comment. Despite the articles, numerous innuendos about American policy and aid continued. One American chortled, "At least it wasn't all bad—that's a change!"

[From the Christian Science Monitor, May 19, 1972]

FOOD, BOATS, FUEL ARRIVING: UN HOPEFUL ON BANGLADESH RELIEF

(By David Winder)

UNITED NATIONS, N.Y.—Sir Robert Jackson, UN Undersecretary-General for all relief operations in Bangladesh, wears the expression of a man who sees a faint glimmer at the end of a long and dark tunnel.

Sent to Bangladesh to unravel the bureaucratic knots, establish the proper priorities, and coordinate all the multitudinous relief channels, Sir Robert is "cautiously optimistic" about the relief operations there.

It is one of the first positive utterances to emerge from what has seemed all along a dismally bleak relief situation.

For all his enthusiasm and activity—he stands, he sits, he paces, he prowls, he lifts things, he puts them down, he fairly explodes with let's-get-on-with-the-job energy—Sir Robert, considered here perhaps the "best aid man in the world," is nevertheless cautious.

The monsoon is less than two weeks away, and he cannot foresee what needs will exist beyond that period. But as of this moment he is quite emphatic that the supplies to meet immediate needs—the food, the inland water transport to convey that food, and the fuel to propel those boats—are arriving and will continue to arrive in Bangladesh.

FORTY-DAY FOOD STOCKPILE

There now is a 40-day food stockpile. By the end of May the Soviet Navy is expected to have cleared Chalna and Chittagong ports of obstructing sunken vessels, a vital factor in the relief operation.

This improved outlook is in contrast to recent negative press reports detailing charges of bureaucratic snarls at UN headquarters, bickering among voluntary agencies, and undisguised Bangladesh Government bitterness at the way aid matters were proceeding.

The man who was assigned the formidable task of putting some order into a rather confused relief picture has some impressive credentials.

He is a former commander in the Australian Navy. He was loaned to the British Navy during World War II and was responsible for the defense of Malta. He was appointed an Assistant Secretary-General at the UN in its early days and was in charge of the upper Volta River development plan for the Ghanaian Government. More recently he undertook a highly regarded two-volume-capacity study of the UN development program.

"MAN OF DECISIVE ACTION"

A UN source, summing up the kind of contribution Sir Robert would make in Bangladesh, said, "He is a man of decisive action. He really is an expert on management. This is what this operation really needed, a man who could pull the loose ends together."

Certainly he gives the impression of a man of action: coatless, always moving around when he talks, and thrusting his chin out as though he were about to take on the world's problems single handed. But he has no illusions about the problems facing Bangladesh.

"I have never seen an economy flattened to the extent where it is reliably estimated that half of its working population—that is, 12 million—are out of work," he says.

For Sir Robert such statistics, however, give no hint of the resilience and self-reliance of the Bangladesh people.

"What is in their compass, they have tried to do."

HARD REALITIES REMAIN

But the hard realities of the situation still remain.

For 75 million in Bangladesh to have even reasonable survival possibilities—and here Sir Robert cites what he calls the parallel of socially unjust conditions prevailing in most "third world" countries—"the outside world will need to assist that government on a very substantial scale for many months to come."

The outside world is responding, he notes, to this "avalanche of problems." The United States, Britian, Canada, Japan, and Sweden are playing a predominant role. The Soviet Union is tackling port clearance. India, at considerable strain to its own transportation system, is moving grain, cement, and other essential materials by overland routes.

Voluntary agencies' response was considered "quite exceptional"—with their record-breaking contributions of over $75 million.

FIGURES DON'T DISTURB HIM

Of the $630 million required to meet the need for 1972, only some $500 million has been pledged.

These figures do not appear to disturb the UN aid expert.

"The best interests of the Bangladesh Government and the UN will be achieved if no further appeals for funds are made until we have some more facts and can indicate even more specifically what is required to repair what."

[From the Evening Star, July 12, 1972]

MUJIB SEEKS TO STRENGTHEN LINKS TO PEOPLE

(By David Van Praagh)

DACCA.—Sheik Mujibur Rahman strides across the spacious drawing room of the old Pakistan president's house here as if he owns the place.

He does, in effect, for the people of Bangladesh. To them he is a miracle as much as creation of their country six months ago. He clearly means to keep up and if possible strengthen the link.

Mujib, as everyone calls him, is tall for a Bengali. His black waistcoat is another distinctive mark. His moustache fairly bristles when he talks. His eyes can smile and grow warm but he is harder than he used to be. He is all business, with a message to get across to me in an interview as he had a message for agricultural students from Mymensingh he met just before.

"MY PEOPLE LOVE ME"

And Mujib is sensitive and defensive as perhaps only a Bengali can be. He is concerned about meeting not only foreign criticism but also increasing questions from some of his own people.

The prime minister and folk hero of 75 million persons who have lived through some of the world's worst conditions served notice that Bengali critics of his government run the risk of incurring the people's wrath if they are not constructive.

"I want to follow democracy," declared Mujib, "But if criticism is not constructive, then my people will deal with them (the critics). My people love me—there is no question about it—if anyone wants to test this, they can test it anytime they like."

MAGAZINE ATTACK

The warning was vague but unmistakable. Mujib wants time. He is proud of the fact that he received a positive response from nearly 1 million people when he asked them in a major speech June 7 if they were willing to wait three years for results.

His comments about criticism—he said his policies, not him may have been attacked—indicated that he is unwilling to brook much interference in the pace and manner he is setting for Bangladesh.

The most outspoken publication here, Holiday—which enjoyed a similar reputation under Pakistani rule partly because of its innocuous name—may be the first critic to pick up Mujib's challenge.

"Mujib's (June 7) speech ended up as sound and fury signifying nothing," boldly commented Holiday. "The country is bristling with problems which are more man-made than what can be accepted as the trauma of independence . . . Mujib does need time, maybe more than the mere three years he has been asking for."

Other critics prefer anonymity. A foreigner with years of experience in East Bengal, including overseeing relief programs in the countryside immediately before, during and after the fight for independence, said that official corruption had never seemed worse. Many persons working in the many-facated—and sometimes uncoordinated—international aid effort to put Bangladesh on its feet anticipate that a large part of relief funds and materials will be misused for private profit.

"STILL GUN-DRUNK"

Breakdown of law and order is an increasingly serious problem despite the 200,000 firearms that Mujib said had been surrendered to him. One discerning observer, who lived through the worst of the bloodshed leading up to independence in December, said: "This country is still gun-drunk—loaded with arms and ammunition."

In a few days in June, five persons died in a clash between police and Lal (Red) Bahinis outside Khulna. A well-known journalist was found murdered outside Dacca. Police killed three persons when they fired on a mob outside a Kushtia bank. A member of the legislature and two Awami League workers were found dead of unknown causes in Khulna.

"Mujib is the only leader close to the people but he can't solve everything," reflected one of the few trained Bengali intellectuals left after mass murder of many educated Bengalis by Pakistani army collaborators or Moslem fanatics as Pakistan lost control of East Bengal.

"PROGRESS NOT SLOW"

"We could have done much more in the first six months—we still can do a lot—but it's hard to get Mujib to accept that six months is enough for taking up most time with nonessentials."

Sheik Mujib, earnestly defending his record as he sat on a white upholstered chair in the drawing room furnished for Pakistan's presidents, asserted: "Progress is not slow. No country has faced such a situation. To bring normalcy is not easy."

He recited the familiar facts and figures of the meager Bangladesh inheritance, no less tragic for being repeated although many persons question the accuracy of these numerical estimates.

Three million Bengalis killed and 25 million made homeless. Exodus and return of 10 million refugees. Bengali intellectuals and

half the police force destroyed plus roads, bridges and vehicles.

ACCOMPLISHMENTS CITED

Then Mujib turned to what has been accomplished: Road and rail links restored, ports working again, grain coming in as aid from many countries. He implied that Bangladesh is recovering faster than Germany did after World War II, that law and order is better than "civilized" countries despite a "small number" of incidents.

"At least I have 65,000 villages and 75 million people and food is going to the interior," Mujib told me. "We'll be able to fight out the food problem during the monsoon (until September). It is only because the people love me—otherwise I could not do anything."

Mujib talked the same way about the minority Biharis, in terms of his personal links with his people: "I've told the Biharis I'll distribute what I can. I'm a human being. I think the Biharis are living better than my Bengalis whose homes have been burned by the Pak army. The Biharis have collaborated in genocide. I must congratulate my people that after liberation there was no second genocide."

"PLAYING A GAME"

Sheik Mujib said President Zulfikar Ali Bhutto of Pakistan has a moral obligation to take back Biharis who want to leave, in exchange for Bengalis in Pakistan. He accused Bhutto of "playing a game" to get back more than 90,000 Pakistani prisoners of war held by India.

Once during the interview the power failed—a regular happening in Dacca—and a powerful fan and all lights but one dim one went out. Mujib went on talking in the evening shadows before the lights flicked uncertainly back to life some moments later.

The prime minister of Bangladesh, who is 52, meets people in the old president's house from 5 to 10 p.m. seven days a week, after working in the main secretariat building and before going home to his own modest house and his family. There are few crowds at the official residence anymore, few security guards inside the walled compound and young, sportshirted assistants are unobtrusive.

It is difficult to tell how well Mujib takes the fluttering pulse of Bangladesh.

[From the New York Times, May 20, 1972]

BEST U.S. AID DEAL OFFERED TO DACCA—TERMS MOST GENEROUS EVER, AMERICAN AIDES ASSERT

DACCA, BANGLADESH, May 19.—Officials of the United States Agency for International Development are negotiating an economic aid agreement with Bangladesh on terms described by an American spokesman as "the most generous and flexible ever offered by the United States to any country."

Upon the signing of the proposed pact, expected by the end of this month, American aid to this country is to begin rising toward an expected total of $300-million in the coming year. Congress has already appropriated $200-million of this sum, part of which is now in the aid pipeline to Bangladesh, and prospects are believed to be favorable for an additional allotment of $100-million requested by Secretary of State William P. Rogers.

Under the terms proposed by Washington, Bangladesh will be the first recipient of American aid grants to be permitted to spend the money on imports from countries other than the United States.

The only limitation is that the imported items, if not bought in the United States, must be purchased from another "developing country," such as India, and not from affluent advanced nations like Japan and Germany, American officials have explained.

ANOTHER RESTRICTION DROPPED

Another departure from the normal restrictions on American aid will permit Bangladesh to purchase the items she wishes with these funds without first getting American approval.

Asked to describe the reaction of Bangladesh officials to the proffered terms, C. Herbert Rees, head of the four-man United States aid mission, said, "They could hardly believe it." He added that the Bangladesh officials "know all about previous American aid agreements," and that "they were very pleased" with the new offer.

In the absence of a formal agreement between Dacca and Washington on aid, American assistance up to now has had to be channeled through the United Nations Relief Operation in Dacca, usually referred to as UNROD, and private voluntary agencies, such as the Red Cross.

INDIA MAIN DONOR NOW

It is expected that under the new arrangement the United States will overtake India as the leading contributor to relief, rehabilitation and development in Bangladesh, which inherited an economy shattered by the war with Pakistan.

India, whose military forces combined with local guerrillas to defeat Pakistani troops in East Pakistan and make this former province an independent republic, has given the new state $142.7-million in cash and commodities. The United States is next among donors with $119-million given in aid up to now.

Mr. Rees, who is director of South Asian affairs in the Agency for International Development, noted that the United States had contributed more than 65 per cent of the aid sent to Bangladesh through the United Nations. He was critical of the relatively small assistance from Japan, which has given the equivalent of $10-million, and from Western Europe.

Besides a cash payment of $35-million to the United Nations relief mission here for operating expenses, and $74-million in food shipments, the United States has distributed $7.32-million to private agencies for relief projects ranging from the replacement of destroyed village houses to cholera research.

The new program under the bilateral agreement now being negotiated here will go beyond the relief phase and concentrate on building up the ailing economic plant. The main projects, Mr. Rees said, will be directed primarily toward improving production in industry and agriculture.

[From the Christian Science Monitor, July 11, 1972]

INCIDENTS FADE AWAY: BANGLADESH RANCOR EASES; BIHARIS NOT SO THREATENED

(By Henry S. Hayward)

DACCA, BANGLADESH.—The estimated 700,000 pro-Pakistan Biharis in Bangladesh are not likely to face further massacre threats—if no new incitements to racial and religious violence surface here.

No major incidents involving this large minority group have been reported in recent months. But it would take only one serious incident involving Biharis to rekindle the violence, in the opinion of Western observers.

Harassment of the Biharis peaked last February, shortly after the country's war of liberation. Mukti Bahini freedom fighters entered a number of Bihari enclaves on the pretext of searching for weapons.

While there unquestionably were weapons in Bihari hands, and the new nation had been called upon to turn in its arms, the likelihood is that a second Mukti objective was to intimidate the much disliked Bihari families. In any case, shots were exchanged, and a number of Biharis were killed at that time.

Since then the situation has stabilized and gradually improved. Some of Dacca's 50,000 Biharis—most of them live in guarded camps in Mirpur and Mohammedpur—have ventured out to work at their former jobs. Others are still too frightened to leave the camps.

The Bangladesh Red Cross, under International Red Cross supervision, continues to deliver food to Bihari camps, whose inmates otherwise would face starvation, due to their inability to go out and purchase in regular markets.

The Bangladesh Government supplies the food from its own stocks, often provided from United Nations and other foreign relief agencies.

But the basic Bihari problem remains unsolved. Many Biharis don't want to integrate with the Bengalis of the new Bangladesh nation. In Dacca, at any rate, they consider themselves Pakistanis—but without the means of emigrating to Pakistan, even if the Pakistan Government would take them. The Biharis of Chittagong, on the other hand, have established better relations with their Bengali neighbors. Although not integrated, these Biharis are regarded as being less pro-Pakistan.

STRAINS STILL FELT

While they are sympathetic with the Biharis' plight, Western observers feel the Bihari community asked for trouble by actively collaborating with the Pakistan Army in its terror campaign against the Bengalis of East Pakistan prior to the liberation.

After decades of sporadic clashes with the Bengalis, many Biharis last year seemed quite satisfied to see the Bengalis roughly treated by former President Yahya Khan's soldiers. Instances were reported in Biharis taking over the Bengali homes, shops, land, and possessions left behind when millions of frightened Bengalis fled to India. Now the refugees have returned and reclaimed what possessions they can find. Their attitude toward the Biharis is what might be expected—less than compassionate.

Yet Prime Minister Shiekh Mujibur Rahman has repeatedly urged his countrymen not to take matters into their own hands and punish those they feel harmed them during their struggle against Pakistani repressions. This is one reason why the Bengali leader is so emphatic that formal war crimes trials must be held on Bangladesh soil—in place of impromptu executions which might otherwise flourish.

During the present lull, meanwhile, the bolder Biharis have resumed their usual occupations as drivers, office workers in government ministries, and railway workers. One of the difficulties in getting Bangladesh railways back into operation—aside from damage to equipment, bridges, and right of way—is that many of the experienced Bihari employees have been afraid to report for duty.

Some neutral observers have suggested it might be possible to exchange the Biharis in Bangladesh for the estimated 400,000 Bengalis now in Pakistan.

EXCHANGE UNLIKELY

But aside from the sheer logistics involved, this is a difficult political problem. Pakistan does not recognize Bangladesh, and the two countries have no relations, so no discussions are possible. And if their safety were guaranteed, it is likely that many Biharis here and Bengalis in Pakistan might prefer to stay where they are.

The decline in attacks upon Biharis may stem from the fact that Mukti Bahini forces gradually are fading back into civilian life, or are being absorbed into the national militia where they are under greater control. "The Mukti no longer are heard of as a cohesive force," a Western diplomat declared. "Bangladesh now is under a civil administration pretty much nationwide."

Even Tiger Siddiqui, the well-publicized, young Mukti leader in the Tangail area, has been very quiet in recent months. It is hard to tell if he is also fading back into civilian life or simply waiting to see how things develop.

CONCLUSION OF MORNING BUSINESS

Mr. MANSFIELD. Mr. President, is there further morning business?

The PRESIDING OFFICER. The time for morning business has expired.

MILITARY PROCUREMENT AUTHORIZATIONS, 1973

The PRESIDING OFFICER. Under the previous order, the Chair lays before the Senate the unfinished business, which will be stated by title.

The legislative clerk read as follows:

A bill (H.R. 15495) to authorize appropriations during the fiscal year 1973 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 authorize construction at certain installations in connection with the Safeguard antiballistic missile system, and to prescribe the authorized personnel strength for each active duty component and of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes.

Mr. MANSFIELD. Mr. President, I yield at this time to the distinguished assistant majority leader, the Senator from West Virginia (Mr. ROBERT C. BYRD).

UNANIMOUS-CONSENT AGREEMENT

Mr. ROBERT C. BYRD. Mr. President, I am authorized by the distinguished majority leader, after conferring with the distinguished manager of the bill, the Senator from Mississippi (Mr. STENNIS), the distinguished ranking member of the committee, the Senator from Maine (Mrs. SMITH), and all Senators who are parties to amendments to the pending bill, to propose the following unanimous-consent request:

Mr. President, I ask unanimous consent that on Monday, at 10:30 a.m., the unfinished business be laid before the Senate; that the Senator from Washington (Mr. JACKSON) be recognized to call up his amendment, on which there be at that time a time limitation of 30 minutes; that the Senate then proceed to the consideration of an amendment by Mr. CRANSTON which has reference to the Sam B; that time be limited thereon to one and a half hours; that the Senate then proceed to an amendment by Mr. HARTKE, on which there be a time limitation of one and a half hours

Provided, further, Mr. President, that no votes occur at the expiration of said times on the aforementioned amendments; that at the expiration of the time stipulated on the amendment by Mr. HARTKE, the Senate proceed to the consideration of a second track item which will be determined by the leadership at a later time.

Provided, further, That at no later than 6 p.m. on Monday, the distinguished majority leader or his designee be authorized to return to the consideration of the unfinished business, at which time the amendment by Mr. Jackson be returned to consideration and there be a time limitation thereon of one-half hour; that upon the disposition of the amendment by Mr. JACKSON, The Senate resume consideration of the Sam B amendment by Mr. CRANSTON, with a time limitation thereon of 30 minutes; that upon the disposition of the amendment by Mr. Cranston, the Senate resume consideration of the amendment by Mr. HARTKE, with a time limitation thereon of one-half hour; that upon the disposition of the amendment by Mr. Hartke, the Senate return to the consideration of the second-track item or that the majority leader be at that time authorized to proceed to any other matter.

Provided, further, that on Tuesday, at 10 a.m., the Senate resume its consideration of the unfinished business; that the amendment by Mr. PROXMIRE and Mr. MCGOVERN be made the pending question at that time; that there be a time limitation thereon of 3 hours; that upon the disposition of the amendment by Mr. PROXMIRE and Mr. MCGOVERN, the Senate proceed to the consideration of an amendment by Mr. HATFIELD; that the time limitation thereon be 3 hours; that upon the disposition of the amendment by Mr. HATFIELD, the Senate proceed to the consideration of an amendment by Mr. TUNNEY, with a time limitation thereon of 1½ hours; that upon the disposition of the amendment by Mr. TUNNEY, the Senate proceed to the consideration of an amendment by Mr. KENNEDY, with a time limitation thereon of 1 hour; that upon disposition of the amendment by the Senator from Massachusetts (Mr. KENNEDY), it be in order for the distinguished majority leader or his designee to proceed to the consideration of any second track items.

Provided further, on Wednesday, August 2, 1972, at 10 a.m., that the Senate resume consideration of the unfinished business; that the distinguished Senator from California (Mr. CRANSTON) be recognized for debate of his so-called Vietnam amendment on which there will be a time limitation of 4 hours; and that the distinguished Senator from Massachusetts (Mr. BROOKE) then be recognized for debate of his amendment on which there be a time limitation of 2 hours.

Provided further, that there be a time limitation on the bill of 4 hours; that time on any amendment in the first degree other than those amendments enumerated be limited to 1 hour; that time on any amendment to an amendment or amendments in the second degree, debatable motion or appeal be limited to 30 minutes; that tabling rights with respect to any amendment or motion be reserved; that Senators in control of the time on the bill may yield therefrom on any amendment, debatable motion or appeal.

Ordered further, that as to the division, any time on the bill would be divided between and under the control of the distinguished manager of the bill the Senator from Mississippi (Mr. STENNIS) and the distinguished Senator from Maine (Mrs. SMITH); that time on any amendment in the first degree be divided between and controlled by the mover of such amendment and the distinguished manager of the bill; that time on any amendment to an amendment or amendment in the second degree be divided between and controlled by the mover of such amendment and the author of the amendment in the first degree, except in any instance in which the author of the amendment in the first degree would favor such, in which instance time in opposition to the amendment in the second degree would be under the control of the distinguished manager of the bill; that time on any debatable motion or appeal be equally divided between the mover of such and the distinguished manager of the bill; and that a final vote occur on Wednesday at no later than 6 p.m.

Provided further, that rule XII be waived.

The PRESIDING OFFICER (Mr. STEVENSON). Is there objection to the request of the Senator from West Virginia?

Mr. STENNIS. Mr. President, reserving the right to object, and I shall not object, does this agreement cover the proposition on motions to table?

Mr. ROBERT C. BYRD. Yes.

Mr. STENNIS. I thank the Senator.

The PRESIDING OFFICER. Is there objection to the request of the Senator from West Virginia? The Chair hears none and it is so ordered.

The text of the unanimous-consent agreement reads as follows:

Ordered, That during the further consideration of H.R. 15495, an act authorizing funds for military procurement for fiscal year 1973, the time for debate on amendments and the bill, together with the order in which certain amendments will be considered, is as follows: on Monday, July 31, 1972, at 10:30 a.m. the Senate will proceed to the consideration of the unfinished business (H.R. 15495) with the Chair recognizing the Senator from Washington (Mr. Jackson) to call up an amendment on which there will be 30 minutes debate without a vote at that time; the Senator from California (Mr. Cranston) will then be recognized to call up his SAM B amendment on which there will be 1½ hours for debate without a vote at that time; following which the Senator from Indiana (Mr. Hartke) will be recognized to call up an amendment on which there will be 1½ hours for debate without a vote at that time.

Following debate of these three amendments, the Senate will then proceed to the consideration of "second track legislation" to be proposed by the majority leader or his designee.

At no later than 6:00 p.m. on Monday, July 31, 1972, the Senate will return to the unfinished business, at which time there will be ½ hour debate on the amendment by the Senator from Washington (Mr. Jackson), to be followed by a vote thereon if no other amendment is offered thereon; after which there will be ½ hour debate on the amendment by the Senator from California (Mr. Cranston), to be followed by a vote thereon if no amendment is offered thereon; then to be followed by ½ hour debate on the amendment by the Senator from Indiana (Mr. Hartke) and a vote thereon if no amendment is offered thereto.

Following disposition of the above amendments, the Senate will return to consideration of a second track item of business, to be called up by the majority leader or his designee.

Provided further, That on Tuesday,

August 1, 1972, at 10:00 a.m. the unfinished business will be laid before the Senate and the Senator from Wisconsin (Mr. Proxmire) will be recognized to call up an amendment by the Senator from Wisconsin (Mr. Proxmire), and the Senator from South Dakota (Mr. McGovern) on which there will be 3 hours debate; after the disposition of the Proxmire amendment, the Senator from Oregon (Mr. Hatfield) will be recognized to call up an amendment on which there will be 3 hours debate; after the disposition of that amendment, the Chair will recognize the Senator from California (Mr. Tunney) to call up an amendment on which there will be 1½ hours debate; following the disposition of that amendment, the Senator from Massachusetts (Mr. Kennedy) will be recognized to call up an amendment on which there will be 1 hour debate; following the disposition of that amendment, the Senate will return to "second track legislation" to be determined by the majority leader or his designee.

Provided further, That on Wednesday, August 2, 1972, at 10:00 a.m. the Chair will lay before the Senate the unfinished business and the Senate will proceed to the debate of the so-called Vietnam amendment by the Senator from California (Mr. Cranston) on which there will be 4 hours debate; but before a vote is taken on that amendment, there will be 2 hours debate on the amendment by the Senator from Massachusetts (Mr. Brooke) to the amendment of the Senator from California (Mr. Cranston).

Provided further, That the time for debate on all of the above specified amendments will be equally divided and controlled by the proponent of the amendment and the manager of the bill, Mr. Stennis.

Provided further, That time for debate on any other amendment in the first degree will be limited to 1 hour, to be equally divided and controlled by the proponent of that amendment and the manager of the bill, Mr. Stennis; and that debate on any amendment to an amendment, or amendment in the second degree, will be limited to ½ hour, to be equally divided and controlled by the proponent of that amendment and the author of the amendment in the first degree, or the manager of the bill, Mr. Stennis, if the author of the amendment in the first degree is in favor of the amendment.

Provided further, That debate on any debatable motion or appeal will be limited to 30 minutes, to be equally divided and controlled by the proponent of any such motion or appeal and the manager of the bill, Mr. Stennis.

Provided further, That the right to offer tabling motions on any proposition be reserved.

Ordered further, That time for debate on the bill be limited to 4 hours, to be equally divided and controlled by the manager of the bill, Mr. Stennis, and the Senator from Maine, Mrs. Smith: *Provided,* That the time under their control on the passage of the said bill may be allotted to any Senator during the consideration of any amendment, debatable motion or appeal.

Ordered further, That the Senate vote on final passage of the bill no later than 6:00 p.m. on Wednesday, August 2, 1972.

Mr. MANSFIELD. Mr. President, will the Senator from West Virginia yield?

Mr. ROBERT C. BYRD. I yield.

Mr. MANSFIELD. Mr. President, I want to compliment the distinguished Senator from West Virginia for just going through a tremendous technical exercise.

My question, though, is this: This time limitation and the overall time factor is based on what knowledge we have as to what amendments will be offered as of now; is that not correct?

Mr. ROBERT C. BYRD. Exactly.

Mr. MANSFIELD. I thank the Senator.

Mr. ROBERT C. BYRD. Mr. President, if the distinguished majority leader will yield so that I may further respond to him, under the agreement, as I understand it—and the Presiding Officer can correct me if I am in error—Senators who have amendments in the first degree other than those enumerated would have the right to offer such amendments only on Wednesday. Of course any Senator can offer an amendment to an amendment on any day. Am I correct?

The PRESIDING OFFICER. Under the agreement, that would be the situation. There would be 1 hour on amendments in the first degree and one-half hour on amendments in the second degree.

Mr. ROBERT C. BYRD. May I also ask the distinguished Presiding Officer, if it is clear from the request that votes on the amendments on Monday would occur not later than 6 p.m.?

The PRESIDING OFFICER. Six p.m. The Senator is correct.

Mr. ROBERT C. BYRD. Or was it not prior to?

Mr. TOWER. Not prior to.

The PRESIDING OFFICER. Not prior to.

Mr. ROBERT C. BYRD. That is correct. Would the Chair please state what the order provided for.

The PRESIDING OFFICER. Not later than 6 p.m. the Senate will return to the unfinished business.

Mr. ROBERT C. BYRD. So that any votes on the amendments on that day would occur not prior to 6 p.m., unless the Majority Leader chooses to return to the unfinished business at a time prior thereto sufficient to result in an earlier vote.

The PRESIDING OFFICER. The Senator did not make clear in the order whether, when the Senate returned to the unfinished business, and then took up the Jackson amendment for half an hour, that the Senate would vote at that time on the Jackson amendment.

Mr. ROBERT C. BYRD. The Senate would do so. I cannot recall whether I said the Senate would return to the unfinished business not later than or not before 6 o'clock.

The PRESIDING OFFICER. The order, as it stands now, says not later than 6 p.m.

Mr. ROBERT C. BYRD. So that the majority leader, if he wishes, can return to the unfinished business at 5 p.m., or 5:30 p.m., or at an earlier hour than 6 p.m. if he so wishes.

The PRESIDING OFFICER. That is correct.

Mr. ROBERT C. BYRD. I thank the Chair.

Mr. MANSFIELD. Mr. President, the purpose of the Monday situation is to allow those of us who are going to attend the funeral of Senator Ellender to have our rights protected so far as voting is concerned, and to give us sufficient time to get back to participate in votes which otherwise we would have missed because of a circumstance which no one had foreseen.

AMENDMENT NO. 1363

Mr. TOWER. Mr. President, I call up my amendment and ask that it be stated.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk proceeded to read the amendment.

Mr. TOWER. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered, and the amendment will be printed in the RECORD.

The text of the amendment is as follows:

The Secretary of Defense is authorized to utilize Department of Defense resources to assist the Department of Health, Education, and Welfare and the Department of Transportation in providing medical emergency transportation services to civilians. Any resources provided under this section shall be under such terms and conditions, including reimbursement, as the Secretary of Defense deems appropriate.

Mr. TOWER. Mr. President, I yield myself such time as may be required.

Mr. President, on July 17, 1970, a critically injured youth was airlifted from Winter Garden Hospital in Dilley, Tex., to Baptist Memorial Hospital in San Antonio for surgery. Land distance between the Frio County community and San Antonio is 84 miles. The evacuation by conventional land transportation would have taken approximately an hour and a half. The helicopter made the trip from Dilley in 30 minutes. The time saved is credited with having saved the life of the youth.

Last year, more than 115,000 Americans lost their lives in accidents. Four hundred thousand more were permanently disabled and 10 million were temporarily disabled. The loss to the Nation's economy from accidents last year is estimated at over $28 billion. These staggering figures are particularly distressing—especially since this toll could be significantly reduced by the upgrading of medical emergency transportation services. A survey of 782 traffic deaths occurring in rural and urban California counties during 1961 convincingly demonstrated that persons injured in rural counties were almost four times as likely to die of their injuries as those injured in urban counties, even though the injuries sustained in rural counties tended to be less severe.

In August 1969, the Secretary of Defense suggested to the Secretary of Transportation that an interagency planning group be established to consider a proposal to use military resources in response to civilian medical emergencies. Of specific interest was the employment of military helicopters and paramedical personnel in responding to highway accidents. This was the birth of the military assistance to safety and traffic—the MAST—program. During 1970, pilot or demonstration projects were implemented at five military installations—Fort Sam Houston, Tex.; Fort Lewis, Wash.; Fort Carson, Colo.; Luke Air Force Base, Ariz.; and Mountain Home Air Force Base, Idaho. MAST was essentially an operational test, where military resources and techniques which have

been so effectively employed in combat were meshed with local emergency medical services—EMS—systems with a minimum of delay and administrative difficulty, with no additional men, money, or aircraft provided. MAST is the program which saved the life of the youth from Dilley, Tex.

The MAST unit stationed at Fort Sam Houston responds to calls covering an area of 9,499 square miles encompassing San Antonio and nine surrounding counties served by the Alamo Area Council of Governments. The main purpose of the program is to reduce highway traffic deaths by shortening the length of time between injury and hospitalization by airlifting victims directly from accident scenes to large area hospitals where specialized personnel and treatment facilities are readily available. The Fort Sam Houston MAST team has also transported the critically ill and injured from small, remote hospitals which may not have equipment or personnel available to render lifesaving care. The helicopters can also be used to transport emergency medical supplies, as well as coral snake antivenom, of which San Antonio has the only supply available in Texas, and blood for emergency transfusions. In isolated cases, a physician can be flown to the bedside of a patient too ill to be transported. In general, the unit is available for medical emergencies where rapid transportation is required and ground transportation is not feasible.

I feel that there are several points which should be made at this time.

First, the MAST program would only be conducted or expanded to the extent that it did not impair the military mission of the units. Study has indicated that MAST should be consistent with unit availability and training requirements. First priority for establishing MAST sites should go to installations where aeromedical evacuation or search and rescue units are deployed. Establishment of MAST sites at installations where necessary helicopters must be drawn from other aviation units should be at the discretion of the Secretary of Defense and will be consistent with military objectives and priorities.

Indeed, rather than impair the military mission, the MAST units presently operating have complemented, supplemented and enhanced military objectives. The program has provided excellent training opportunities—the life and death purpose of the mission has provided the incentives necessary to maintain a continuous state of readiness for military requirements. Because the MAST program is operational it is an excellent practical evaluation of our medical evacuation capabilities, as well as being a valuable method of further refining our techniques.

Second, the amendment does not preempt the responsibility of other agencies to provide programs for Emergency Medical Services. The responsibility for civilian aeromedical evacuation should remain in the Departments of Transportation and Health, Education, and Welfare, to include programing and budgeting of funds for the conduct of the programs. Department of Defense participation in the program is intended solely as an interim supplement to the services provided by the other agencies. This amendment simply represents an attempt to fully utilize our Nation's resources to meet the health needs of the people.

Third, this amendment is being requested by the Department of Defense. The findings of several in-depth studies have demonstrated the value of the program to the Armed Services as well as the civilian communities.

A final comment is that this amendment does not provide for any authorization of funds, for such is not necessary. We are merely talking about the utilization of available equipment and manpower.

I wholeheartedly endorse the MAST program and urge the adoption of this amendment to permit and encourage the growth of cooperative defense-civilian effort to save lives.

Mr. President, I have discussed this amendment with my distinguished colleague, the chairman of the committee, the Senator from Mississippi (Mr. STENNIS), and with the distinguished ranking minority member, the Senator from Maine (Mrs. SMITH). It is my understanding that they are prepared to accept this amendment on behalf of the committee.

Mr. STENNIS. Mr. President, if the Senator from Texas will yield to me, I would like to ask him a few questions after making a brief statement on my own time.

This is a very laudable program and has worked exceedingly well.

A few years ago I was chairman of the Subcommittee on Transportation of the Committee on Appropriations. They ran some pilot programs on this idea of helicopter rescue squads being available in various areas. They did it in conjunction with the highway patrol, the State police, and agencies of that kind in various States.

Mr. President, the program worked so well that some of the States appropriated funds to carry it on after this experiment with the pilot program was over. And I know that my State was one of those. Later the Departments of Transportation, Defense, and HEW coordinated their efforts in this field. It has been working mighty well.

I want to ask the Senator from Texas a question. We have not been able to get an estimate of what additional cost this program might incur for the military. There was insufficient time to coordinate the figures with the Office of Management and Budget. That is a statement by the Department of Defense. Does the Senator from Texas have any figure he can suggest as to what the added expense might be?

Mr. TOWER. Mr. President, I do not have any figures on the added expense, if any. There is no authorization of funds involved here. It does not call for additional authorization of funding. It is my understanding that the expense is borne, I think, as a training expense or a regular routine operational expense.

As I mentioned earlier, this is in effect good training for these medical evacuation personnel. It keeps them in a state of readiness and improves their proficiency at the same time for military purposes should the occasion arise.

Mr. STENNIS. Mr. President, I think the Senator is correct in his estimates. However, there is a possibility that it would cost the Department of Defense at least some additional money for gasoline, we will say. However, by and large it is going to be time that they would be putting in. By and large it will be training hours that they are already putting in anyway. So I can approve of it on that point, with this qualification.

I can see where there could be such a demand for this service and—pressure is a bad word to use, but it is very descriptive—the pressure on the military services would increase to expand this service. What is contemplated by the author of the amendment to meet that situation?

Mr. TOWER. It would only go to bases where there are medical units in an actual status of deployment. It would not ever be used to the extent that it would impair the military mission.

Quite to the contrary, it is designed to enhance the preparedness for the military mission.

Mr. STENNIS. Of course, the military mission, of necessity, would have the first call.

Mr. TOWER. It always has the priority.

Mr. STENNIS. We could visualize a picture of operations. The services would not be called upon to increase their manpower or the number of their helicopters or anything of that kind.

Mr. TOWER. No. The key phrase is "utilization of existing resources."

Mr. STENNIS. I approve the idea and after discussion with the Senator from Maine (Mrs. SMITH) I think it is worthy enough for us to further consider in conference. Frankly, in the meantime we are going to try to get a statement from the Bureau of the Budget.

Mr. TOWER. I will look forward to receiving that statement, but I am very optimistic that additional costs will be minimal when we consider enhancement of the mission and readiness for the mission, and the human lives and property saved in the process.

Mr. STENNIS. As I said, the Senator from Maine and I had a conference on this matter. She authorizes me to concur for her in this recommendation. I hope we can adopt this amendment and further develop it in conference.

Mr. TOWER. Mr. President, I am prepared to yield back the remainder of my time.

Mr. STENNIS. I yield back the remainder of my time.

Mr. TOWER. I yield back the remainder of my time.

The PRESIDING OFFICER. All time is yielded back. The question is on agreeing to the amendment of the Senator from Texas.

The amendment was agreed to.

The PRESIDING OFFICER. The bill is open to further amendment.

Mr. STENNIS. Mr. President, according to the arrangement and understanding we will now take up the amendment of the Senator from Wisconsin (Mr.

NELSON). I understand he is on his way to the Chamber.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. STENNIS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

Mr. STENNIS. Mr. President, for the information of Senators, we have the matter here of the Nelson amendment. It was understood it was to be taken up under limited time, but there was no agreement as to the sequence in which matters would be called up, so there is no reason why we should not pass on to something else.

The next matter to be taken up is the amendment of the Senator from Pennsylvania (Mr. SCHWEIKER), who was in the Chamber a minute ago, but has stepped out temporarily.

Mr. ROBERT C. BYRD. Mr. President, will the Senator yield?

Mr. STENNIS. I yield.

Mr. ROBERT C. BYRD. If the Senator will allow me, I have just called the distinguished Senator from Wisconsin (Mr. NELSON) and his office has informed me that he is on his way and anticipates calling up his amendment.

Mr. STENNIS. I thank the Senator. I will continue my statement of the matters for today.

Then there is a request made for a colloquy here by the Senator from Nevada (Mr. CANNON) and the Senator from Wisconsin (Mr. PROXMIRE).

We are ready for all three of these items.

As I have said, there was no firm agreement as to the order in which they would be taken up, so, very respectfully, I would feel free, when one is not here after a reasonable wait, to turn to the next one if he is here.

For the time being, Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. STENNIS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

AMENDMENT NO. 1354

Mr. NELSON. Mr. President, I call up my amendment No. 1354. I yield myself whatever time may be required.

The PRESIDING OFFICER. The clerk will state the amendment.

The assistant legislative clerk read the amendment as follows:

At the end of the bill add a new section as follows:

SEC. 605. Notwithstanding any other provision of law, none of the funds authorized to be appropriated by this or any other Act may be obligated or expended for the purpose of—

(1) weather modification activities as weapons of war;

(2) the type of activities carried out by the Department of Defense in Vietnam under the code names of Operation Sherwood Forest, Operation Hot Tip, and Operation Pink Rose in which so-called fire storms or fires over a large area were, or were attempted to be, intentionally ignited;

(3) entering into or carrying out any contract or agreement providing agents, delivery systems, dissemination equipment, or instructions for the military application of weather modification techniques, or for deliberately igniting so-called fire storms or fires over large areas for military purposes (as described in clause (2)); or

(4) procuring or maintaining agents, delivery systems, or dissemination equipment for the purpose of modifying weather conditions for military purposes, or igniting so-called fire storms or fires over large areas for military purposes (as described in clause (2)).

Mr. NELSON. Mr. President, I ask unanimous consent that the names of Senators MOSS, CHURCH, MONDALE, GRAVEL, FULBRIGHT, CRANSTON, BAYH, PASTORE, HATFIELD, HUMPHREY, MUSKIE, METCALF, PELL, TUNNEY, and HUGHES be added as cosponsors of amendment No. 1354.

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

Mr. NELSON. Mr. President, I modify my amendment, as submitted on July 25, by striking all the language in lines 1 through 15 on page 2 of the amendment. I substitute for that language, under (1) the following language: "weather modification activities as weapons of war".

Mr. President, this amendment proposes as follows, and I will read it into the RECORD——

The PRESIDING OFFICER. Will the Senator send his modification to the desk?

Mr. NELSON. Thus the amendment would read:

SEC. 605. Notwithstanding any other provision of law, none of the funds authorized to be appropriated by this or any other Act may be obligated or expended for the purpose of—

(1) weather modification activities as weapons of war;

(2) the type of activities carried out by the Department of Defense in Vietnam under the code names of Operation Sherwood Forest, Operation Hot Tip, and Operation Pink Rose in which so-called fire storms or fires over a large area were, or were attempted to be, intentionally ignited;

(3) entering into or carrying out any contract or agreement providing agents, delivery systems, dissemination equipment, or instructions for the military application of weather modification techniques, or for deliberately igniting so-called fire storms or fires over large areas for military purposes (as described in clause (2)); or

(4) procuring or maintaining agents, delivery systems, or dissemination equipment for the purpose of modifying weather conditions for military purposes, or igniting so-called fire storms or fires over large areas for military purposes (as described in clause (2)).

Mr. President, Science Magazine published an article on July 21, 1972, entitled "Technology in Vietnam: Fire Storm Project Fizzled Out." The article describes how, on three occasions at least—in 1965, 1966, and 1967—

The Defense Department attempted to light what defense planners term "fire storms"—the name used to describe the World War II holocausts at Hamburg, Dresden, and elsewhere—in some of South Vietnam's most valuable timber country. All three attempts, however, fizzled out. One may have even caused rainfall instead of a big forest fire.

The attempts were known by such euphemistic names as Sherwood Forest, Hot Tip, and Operation Pink Rose. They took place in the Mekong Terrace of South Vietnam, a Central Plains area which contains several luxury timbers such as mahogany and rosewood, and half of South Vietnam's sawmills. Timbering is said to be one of the few industries that could develop into prime importance for the South Vietnam economy.

Mr. President, I ask unanimous consent that, at the conclusion of my remarks, the entire article from Science Magazine dated July 21, 1972, be printed in the RECORD.

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

(See exhibit 1.)

Mr. NELSON. Mr. President, on July 3, 1972, the New York Times published an article entitled "Rainmaking is Used as Weapon by the United States." It reads:

WASHINGTON, July 2.—The United States has been secretly seeding clouds over North Vietnam, Laos, and South Vietnam to increase and control the rainfall for military purposes.

Government sources, both civilian and military, said during an extensive series of interviews that the Air Force cloud-seeding program has been aimed most recently at hindering movement of North Vietnamese troops and equipment and suppressing enemy antiaircraft missile fire.

The disclosure confirmed growing speculation in congressional and scientific circles about the use of weather modification in Southeast Asia. Despite years of experimentation with rainmaking in the United States and elsewhere, scientists are not sure they understand its long-term effect on the ecology of a region.

The weather manipulation in Indochina, which was first tried in South Vietnam in 1963, is the first confirmed use of meteorological warfare. Although it is not prohibited by any international conventions on warfare, artificial rainmaking has been strenuously opposed by some State Department officials.

It could not be determined whether the operations were being conducted in connection with the current North Vietnamese offensive or the renewed American bombing of the North.

Mr. President, I ask unanimous consent that this entire article, written by the distinguished reporter Mr. Seymour Hersh and published in the New York Times on July 3, 1972, be printed in the RECORD at the conclusion of my remarks.

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

(See exhibit 2.)

Mr. NELSON. Mr. President, this amendment aims to prevent the expenditure of any funds for the purpose of carrying on the kind of military activities described in the excerpts I have read from Science magazine and from the New York Times.

We have engaged—as the first nation, I think, in the history of warfare—in extensive environmental tactical and strategic warfare by the use of a number of devices. For several years we have dropped tens of millions of pounds—in fact over 100 million pounds—of herbicides on Vietnam for the stated purpose of defoliating the forests to deny cover to the enemy.

In this little country no larger than the New England States, this has perma-

nently destroyed a forest region the size of the State of Massachusetts—over 5½ million acres. It has been a disastrous program from the standpoint of our allies. It did not succeed in accomplishing the military objective of protecting our troops or denying cover to the enemy troops. The elephant grass and other weeds replaced the trees and served as cover. If there was inadequate cover, the enemy simply moved out of the defoliated area.

The defoliation program set a precedent for a kind of warfare that could have worldwide implications unless it is ultimately outlawed by international law.

Under the theory that we would deny cover to the enemy along the roadways of Vietnam, we have also introduced that massive machine, the Rome plow, and bulldozed for a half mile or a mile off the roadside, at the rate of a thousand acres a day, until we have now plowed under a forest the size of the whole State of Rhode Island. Replacing the forest, elephant grass rapidly grows back providing the same cover that we were attempting to deny by this permanent, destructive assault upon the landscape and the environment of our ally.

Now we find—after extensive debate on an amendment which I submitted in the last session of Congress and for which we secured 22 votes and were ridiculed for submitting—that the military has phased out the herbicide program.

Now we discover two other types of environmental warfare, which we have used. I have described both by reading these brief excerpts on fire storm and weather modification warfare.

Mr. President, Dr. Matthew Meselson, Harvard University biology professor, says:

> It is obvious that weather modification used as a weapon of war has the potential for causing large-scale and quite possibly uncontrollable and unpredictable destruction.

Mr. President, I emphasize his words "uncontrollable and unpredictable."

Regarding fire storms, the New York Times reports that "the methods of starting and controlling fire storms are not well understood."

The military is uncorking an evil genie without knowing what it will do or how to get it back into the bottle.

Tampering with the environment—provoking the furies of nature to take revenge on all mankind—is neither conventional nor legitimate war. It is an indiscriminate, blind action wreaking havoc not only on enemy troops but on the land and people of an entire region. Particularly in Southeast Asia which is agricultural and subject to flooding, such destruction will have a far greater impact on civilians than combatants. It invites others to try the same—or an escalated version of the same—ill-advised activity.

Adoption of this amendment would put an end to the myopic military practice of unleashing scientifically new and unevaluated techniques on our enemies, on our allies, and all the entire world community.

Some may argue that weather modification and incendiary techniques are matters best left to the scientists. Or they may argue that since we are in a war, we should leave such considerations up to the military. But such a license is too broad and the risk of abuse too great. This is a matter of too great import for Congress to abdicate its governmental oversight responsibilities to an unknown scientist or an unknown soldier. We are legislating not only for today but also for the future.

This amendment would prohibit funding for weather modification or incendiary activities as weapons of war. It is not intended to cut off funds for research or for operations which have peaceful purpose. Cloud-seeding causing flooding for the enemy would be prohibited. But, for example, fog dissipation operations over U.S. airstrips would not be prohibited.

Mr. President, this amendment is closely modeled on an amendment submitted in the last Congress prohibiting funding for the defoliation program which the President finally ordered stopped. That amendment lost, after debate on the floor of the Senate, by a vote of 22 to 62. But the amendment and debate contributed, I think, to Congress and to the public's realization of what we were doing and added significant pressure to conclude that irrational activity.

At that time, some claimed that the herbicide program was the best method of achieving a military purpose: denying cover to the enemy. But in blindly pursuing this goal, the scientists and military thinkers forgot to think about the whole picture: the deleterious effects of destroying entire forests, the massive introduction of poisons into the environment with unknown and unpredictable consequences nationwide and worldwide, and so forth. And, I might add, it accomplished no significant military objective. The experts forgot to consider that dousing an entire country with chemicals could be interpreted as violating the Geneva Protocol ban on chemical and biological warfare. Today a substantial percentage of the countries in the United Nations consider such use of herbicides a violation.

But there are bigger questions. These are political questions which Congress was called upon to deliberate when I first submitted the herbicide amendment. It seems to me that the Senate must address itself to these bigger questions again today and vote for political responsibility, scientific prudence, and military restraint.

Consider what 78 members of the department of zoology of the University of California at Berkeley wrote on behalf of S. 3084, the Vietnam War Ecological Damage Assessment Act of 1972, which I introduced several months ago:

> Many of us are teachers or researchers in ecology, who have devoted our professional lives to furthering basic knowledge of the structure and function of ecosystems. One overwhelming result has emerged from our work and from that of others: ecosystems are enormously complex. This complexity makes it almost impossible to predict the subtle, indirect, and delayed consequences of even the most simple and seemingly minor changes made by human beings. The widespread disturbances of local ecosystems by our armed forces in Southeast Asia are neither simple nor minor, and the force of their indirect and delayed effects may far outweigh their immediate and obvious consequences.

Mr. President, the tragedy of it all is that we have set a major serious precedent for other countries in the world. The tragedy, further, is that we have done enormous damage to our allies—permanent damage to their country and their country's capacity to produce—and very little, if any, damage to the enemy.

It seems to me that we must vote today to conclude the kind of activities in which we have engaged: massive intrusions in the environment.

Mr. President, I ask unanimous consent to have printed at the conclusion of my remarks a statement I made on January 28, 1972, on the massive environmental damage done in Vietnam.

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

(See exhibit 3.)

Mr. NELSON. Mr. President, I ask unanimous consent to submit for printing in the RECORD some additional material.

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

(See exhibit 4.)

EXHIBIT 1

[From Science, July 21, 1972]

TECHNOLOGY IN VIETNAM: FIRE STORM PROJECT FIZZLED OUT

The Advanced Research Projects Agency (ARPA), which is attached to the Department of Defense (DOD) made at least three attempts, in 1965, 1966, and 1967, to light what defense planners termed "fire storms"—the name used to describe the World War II holocausts at Hamburg, Dresden, and elsewhere—in some of South Vietnam's most valuable timber country. All three attempts, however, fizzled out. One may have even caused rainfall instead of a big forest fire.

The attempts were known by such euphemistic names as Sherwood Forest, Hot Tip, and Operation Pink Rose. They took place in the Mekong Terrace section of South Vietnam—a central plains area which contains several luxury timbers, such as mahogany and rosewood, and half of South Vietnam's sawmills. Timbering is said to be one of the few industries that could develop into prime importance for the South Vietnamese economy. Nonetheless, experts from the U.S. Department of Agriculture (USDA) were called in by ARPA to advise on how to effectively burn the forests. The project's budget was on the order of $1 million.

Military sources say that the attempted jungle fires took place in areas where there were no "permanent type villages," although they allow that Viet Cong supply depots and base camps were in the woods. But Senator Gaylord Nelson (D–Wis.) views the fire projects as part of the U.S.'s "callous" and "unprecedented environmental warfare" which has involved "an outrageous use of technology."

The USDA fire service role in the project was led by Craig Chandler, a fire storm expert who is now director of fire research for the Forest Service. The fire storm project is also discussed in a classified paper, obtained by Science, written by Arthur F. McConnell, Jr., a lieutenant colonel in the Air Force who was involved with the Ranch Hand defoliation missions.

Two reasons were given for the project. One was that, by creating a fire which would "crown," that is, burn out defoliated tops of trees, the fire would remove layers of jungle canopy and make reconnaissance from the air more effective. A second reason was that a large-scale jungle fire which reached the tree tops would destroy the ground cover and make concealment and camouflage by the enemy from U.S. bombing strikes or ground attack impossible.

Fire storms can be many times more dangerous than regular fires; they have occurred accidentally in forests in the American West, as well as in Australia and southern France; they also occurred in urban areas, including Dresden and Hamburg, and on at least two occasions in Tokyo during a 1923 earthquake and during bombing raids in 1944–1945.

In a fire storm, the area of intense burning sucks in oxygen at such a rate that high-speed, cyclone-like ground winds are created, blowing into the fire at speeds which may exceed 100 miles an hour. The Hamburg fire chief, for example, reporting on the fire storm of July 1943, said that many people died from the intense heat even though they were located 150 meters from the nearest burning building.[1]

Both McConnell's classified paper (which was later sanitized and published in the *Air University Review*[2]) and ARPA officials used the term fire storm to describe the burning projects in Vietnam. Chandler says he was asked on a number of occasions during the operation of the project whether a fire storm could be ignited in the humid, tropical jungle. Although lighting a fire storm might be feasible under certain conditions in temperate areas, such as the western United States, Chandler said he told the military it was not feasible to do so in the jungle.

Nonetheless, the fire storm project, as it came to be known, was started under ARPA authorizing order 818. Its final reports are all classified, although some press reports appeared at the time of the attempts. Chandler said he was willing to be interviewed only about those aspects of the project which he had already seen appear in unclassified publications

The project began at the request of CINC PAC, the office of the Commander in Chief of the Pacific which runs operations in Vietnam. Chemical defoliants were then coming into use in the war. However, the jungle canopy, which can extend upward in tiers to a height of 100 feet from the ground, was not transparent enough after defoliating missions. An ARPA spokesman said, "The question posed by CINCPAC was: couldn't we burn the jungle area in the so-called 'hot zones' of infiltration?"

ARPA hired the fire research section of the USDA Forest Service to carry out the order, and offered the support of its 25-member field unit which had been stationed in Vietnam since 1961. The USDA did some preliminary research, then participated in the first "field test"—as ARPA calls it—in the Boi Loi woods near the Iron triangle near Tay Ninh city. The area is due west of Saigon, close to the Cambodia border. As in all the first storm attempts, at the beginning of the dry season Ranch Hand crews defoliated the area, the dead leaves were permitted to dry out for a period, thus preparing the fuel supply. Then ignition was attempted. Hence, in April or May of 1965, a section of the Boi Loi woods was ignited. According to McConnell's paper, the project "Operation Sherwood Forest," was a massive attempt to burn out a defoliated section of the Boi Loi wooods in the hope of denying the enemy an extremely vital base camp area."

Unfortunately, it was raining on the day the field units tried to light the fire. The lighting attempt went ahead, but nothing happened because of the rain. The failure to ignite the woods under the right weather conditions was the reason a second attempt was made a year later.

Chandler recalls two subsequent major attempts, but McConnell's paper implies that there may have been more. "It is interesting to note," McConnell wrote before the Air Force censor deleted the passage, "that during this period and for the next year, several 'fire storm' projects similar to the Boi Loi woods effort were made in conjunction with the Vietnamese Air Force." Asked about this, ARPA officials noted that one of the jobs of the ARPA field unit was to transfer technical skills to the Vietnamese; however, the officials doubted that the incendiary technology was ever successful enough to be passed along to U.S. allies.

The second major burning attempt, code named Hot Tip, was made much farther north, in the Chu Pong Mountains, about halfway between the South Vietnamese cities of Pleiku and Kontum. Ranch Hand crews again defoliated a forest tract probably less than 30 square miles in area. Chandler recalls that the fire was lit sometime in either January, February, or early March of 1966.

"This one wasn't done in the rain," says Chandler. "It was more successful than the first attempt. We recommended some changes afterward, which is why there was a third attempt." Later, an Associated Press account termed this attempt an "incendiary raid" made by "tactical bombers." According to other sources, the fire burned parts of the forest and ground cover, but failed to continue burning, or to spread. One reason, of course, was the high humidity of the jungle. The other was apparently the temperature and wind conditions.

The third and biggest attempt, code named Operation Pink Rose, took place in a Viet Cong stronghold northeast of Saigon near Xuan Loc, in February or early March of 1967. The area staked out for burning was probably 30 square miles. In this case, although weather conditions were perfect, the fire was followed by a rainstorm which put it out. Some accounts say that the fire may have even caused the rainstorm. Thus, all three of the attempts were considered failures.

According to McConnell's original paper, in a passage that was later slightly altered: "One of the highlights of this period [early 1967] was Operation 'Pink Rose,' the third jungle-burning project carried out by Ranch Hand crews. In support of this project, the squadron flew approximately 225 sorties and delivered over a quarter-million gallons of herbicide on selected target areas in War Zones C and D." One military observer, L. L. Herzog, a lieutenant commander, who saw the Pink Rose incendiaries dropping from the sky, was later quoted as saying, "It looked just like the Fourth of July."

Chandler says, "The rain came the evening afterwards. The country doesn't burn well. This is why there was never any expectation on our part that fires were going to spread." Chandler would say only that the incendiaries used for Operation Pink Rose were "of a World War II type" and that after the third attempt, the Forest Service experts who had worked on the project wrote a report to ARPA advising that no further "field tests" or research be carried out.

Much of ARPA's field research in South Vietnam, including the trail sensor network and the foliage penetration radar, has come into wide use in the war. Other projects, such as Pink Rose, which don't work out, are allowed to quietly die. "This was clearly one of those ideas that should have been given the very quietest funeral," an ARPA official said. ARPA briefed the relevant officials in the Air Force and the Office of the Secretary of Defense on USDA's conclusions, and that was that. "It really was a nutty idea to begin with," said an ARPA official.

Despite the unanimous "nyet" of the USDA and ARPA to the feasibility of starting fire storms, or self-propagating fires, in the damp Vietnamese jungle, two questions about the project remain. One is why the term fire storm came to be applied in the first place to the project. McConnell, the former Ranch Hand chief who mentioned fire storms in the course of his paper, said he recalled picking up the term from military sources.

Jay Bentley, a forester, now retired, who was with the fire research service, and headed up the fieldwork for Hot Tip, the second attempt, said he did not recall even hearing the term fire storm in connection with the project until he read it in the newspapers. As to who raised the expectation that a Dresden- or Hamburg-like holocaust would be created in the jungles, Bentley says, "I didn't expect very much to result or think the expectation was very high as far as ARPA was concerned." This statement, as well as ARPA's skeptical attitude toward the project, would seem to imply that the enthusiastic—and horrific—term fire storm emanated from military command sources, over the expert technical advice of the civilians and ARPA.

Another question is what would have happened if the experts had indeed found a way to spark big fires. ARPA sources said unhesitatingly that if Pink Rose had succeeded, the military commanders would have doubtless gone on to use fire-lighting in other situations.

Incendiary technology would have been added, along with herbicides, weather modification, and other environmental weapons, to the DOD arsenal.

Yet, discussing their own role, both the ARPA spokesmen and the Forest Service experts merely claim that they were giving neutral, technical advice. Chandler obviously likes trees, yet he also supports the jungle-burning project because, in his words, "it was part of a military operation" and no villages "friendly or unfriendly" were involved. "This was definitely not a burn-up-people project," he says. And a high ARPA official defends the agency's role thus: "Here was a situation which came up which clearly no one knew what the facts were. . . . We were, as research people asked to look into the technical possibilities and to tell people who make political decision what the facts were." These statements rivet the issue back to the historic claim by scientists that their technical advice is morally neutral and, by implication, divorced from the uses to which the technology they develop is ultimately applied. Perhaps there were no villages involved in what ARPA blandly called the "field tests" of the incendiary projects. Yet clearly there was no insurance that villages would not someday be included in the target area.

The fire storm project is now a mere historical event which its perpetrators would prefer to forget. But another issue may loom very much in the present and future and relates to the matter of ecocide. According to Forest Service experts who have surveyed and inventoried the forest resources of South Vietnam and their alteration due to the war, at least 1 million hectares were defoliated, as of 1967, and that total may have reached 3.5 million by 1969.[3] Defoliation has taken place, not just a few times in a few strategic patches of jungle; some areas have been sprayed for almost 10 years. The tropical

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[1] "Field notes on World War II German fire experience," title of contract No. N228 (62479)–65419 to Carl F. Miller and James W. Kerr, October 1965, Stanford Research Institute, Menlo Park, Calif.

[2] The sanitized version was published as: A. F. McConnell, Jr., "Mission: Ranch Hand," *Air Univ. Rev.* 21, 89 (1970).

[3] Barry R. Flamm and Jay H. Cravens, "Effects of war damage on the forest resources of South Vietnam," *J. Forest.* 69, 784 (1971).

hardwood forests of the Mekong Terrace are drier now than they were in 1965–1967 when humidity dampened Pink Rose projects. It is still possible that fires might recur as a mode of warfare in the collective memory of CINCPAC and the military commanders. As one ARPA official said, "If the system has any institutional memory whatever, if this suggestion is ever made again, they'll look into the files and find out it doesn't work."

EXHIBIT 2

[From the New York Times, July 3, 1972]

RAINMAKING IS USED AS WEAPON BY UNITED STATES—CLOUD-SEEDING IN INDOCHINA IS SAID TO BE AIMED AT HINDERING TROOP MOVEMENTS AND SUPPRESSING ANTIAIRCRAFT FIRE

(By Seymour M. Hersh)

WASHINGTON, July 2.—The United States has been secretly seeding clouds over North Vietnam, Laos and South Vietnam to increase and control the rainfall for military purposes.

Government sources, both civilian and military, said during an extensive series of interviews that the Air Force cloud-seeding program has been aimed most recently at hindering movement of North Vietnamese troops and equipment and suppressing enemy antiaircraft missile fire.

The disclosure confirmed growing speculation in Congressional and scientific circles about the use of weather modification in Southeast Asia. Despite years of experiments with rainmaking in the United States and elsewhere, scientists are not sure they understand its long-term effect on the ecology of a region.

SOME OPPOSED PROGRAM

The weather manipulation in Indochina, which was first tried in South Vietnam in 1963, is the first confirmed use of meteorological warfare. Although it is not prohibited by any international conventions on warfare, artificial rainmaking has been strenuously opposed by some State Department officials.

It could not be determined whether the operations were being conducted in connection with the current North Vietnamese offensive or the renewed American bombing of the North.

EFFECTIVENESS DOUBTED

Beginning in 1967, some State Department officials protested that the United States, by deliberately altering the natural rainfall in parts of Indochina, was taking environmental risks of unknown proportions. But many advocates of the operation have found little wrong with using weather modification as a military weapon.

"What's worse," one official asked, "dropping bombs or rain?"

All of the officials interviewed said that the United States did not have the capability to cause heavy floods during the summer in the northern parts of North Vietnam, where serious floods occurred last year.

Officially, the White House and State Department declined comment on the use of meteorological warfare. "This is one of those things where no one is going to say anything," one official said.

Most officials interviewed agreed that the seeding had accomplished one of its main objectives—muddying roads and flooding lines of communication. But there were also many military and Government officials who expressed doubt that the project had caused any dramatic results.

The sources, without providing details, also said that a method had been developed for treating clouds with a chemical that eventually produced an acidic rainfall capable of fouling the operation of North Vietnamese radar equipment used for directing surface-to-air missiles.

In addition to hampering SAM missiles and delaying North Vietnamese infiltration, the rainmaking program had the following purposes:

Providing rain and cloud cover for infiltration of South Vietnamese commando and intelligence teams into North Vietnam.

Serving as a "spoiler" for North Vietnamese attacks and raids in South Vietnam.

Altering or tailoring the rain patterns over North Vietnam and Laos to aid United States bombing missions.

Diverting North Vietnamese men and material from military operations to keep muddied roads and lines of communication in operation.

KEYED TO MONSOON

The cloud-seeding operations necessarily were keyed to the two main monsoon seasons that affect Laos and Vietnam. "It was just trying to add on to something that you already got," one officer said.

Military sources said that one main goal was to increase the duration of the southwest monsoon, which spawns high-rising cumulus clouds—those most susceptible to cloud-seeding—over the panhandle areas of Laos and North Vietnam from May to early October. The longer rainy season thus would give the Air Force more opportunity to trigger rainstorms.

"We were trying to arrange the weather pattern to suit our convenience," said one former Government official who had detailed knowledge of the operation.

According to interviews, the Central Intelligence Agency initiated the use of cloud-seeding over Hue, in the northern part of South Vietnam. "We first used that stuff in about August of 1963," one former CIA agent said, "when the Diem regime was having all that trouble with the Buddhists."

"They would just stand around during demonstrations when the police threw tear gas at them, but we noticed that when the rains came they wouldn't stay on," the former agent said.

"The agency got an Air America Beechcraft and had it rigged up with silver iodide," he said. "There was another demonstration and we seeded the area. It rained."

A similar cloud-seeding was carried out by C.I.A. aircraft in Saigon at least once during the summer of 1964, the former agent said.

EXPANDED TO TRAIL

The intelligence agency expanded its cloud-seeding activities to the Ho Chi Minh supply trail in Laos sometime in the middle nineteen-sixties, a number of Government sources said. By 1967, the Air Force had become involved although, as one former Government official said, "the agency was calling all the shots."

"I always assumed the agency had a mandate from the White House to do it," he added.

A number of former CIA and high-ranking Johnson Administration officials depicted the operations along the trail as experimental.

The art had not yet advanced to the point where it was possible to predict the results of a seeding operation with any degree of confidence, one Government official said. "We used to go out flying around and looking for a certain cloud formation," the officials said. "And we made a lot of mistakes. Once we dumped seven inches of rain in two hours on one of our Special Forces camps."

Despite the professed skepticism on the part of some members of the Johnson Administration, military men apparently took the weather modification program much more seriously.

According to a document contained in the Pentagon papers, the Defense Department's secret history of the war, weather modification was one of seven basic options for stepping up the war that were presented on request by the Joint Chiefs of Staff to the White House in late February, 1967.

The document described the weather program over Laos—officialy known as Operation Pop-Eye—as an attempt "to reduce trafficability along infiltration routes."

It said that Presidential authorization was "required to implement operational phase of weather modification process previously successfuly tested and evaluated in same area." The brief summary concluded by stating that "risk of compromise is minimal."

A similar option was cited in another 1967 working document published in the Pentagon papers. Neither attracted any immediate public attention.

The Laos cloud-seeding operations did provoke, however, a lengthy and bitter, albeit secret, dispute, inside the Johnson Administration in 1967. A team of State Department attorneys and officials protested that the use of cloud-seeding was a dangerous precedent for the United States.

"I felt that the military and agency hadn't analyzed it to determine if it was in our interest," one official who was involved in the dispute said. He also was concerned over the rigid secrecy of the project, he said, "although it might have been all right to keep it secret if you did it once and didn't want the precedent to become known."

The general feeling was summarized by one former State Department official who said he was concerned that the rainmaking "might violate what we considered the general rule of thumb for an illegal weapon of war—something that would cause unusual suffering or disproportionate damage." There was also concern he added, because of the unknown ecological risks.

A Nixon Administration official said that he believed the first use of weather modification over North Vietnam took place in late 1968 or early 1969 when rain was increased in an attempt to hamper the ability of antiaircraft missiles to hit American jets in the panhandle region near the Laotian border.

Over the next two years, this official added, "it seemed to get more important—the reports were coming more frequently."

It could not be learned how many specific missions were carried out in any year.

One well-informed source said that Navy scientists were responsible for developing a new kind of chemical agent effective in the warm stratus clouds that often shielded many key antiaircraft sites in northern parts of North Vietnam.

The chemical, he said, "produced a rain that had an acidic quality to it and it would foul up mechanical equipment—like radars, trucks and tanks."

"This wasn't originally in our planning," the official added, "it was a refinement."

Apparently, many Air Force cloud-seeding missions were conducted over North Vietnam and Laos simply to confuse or "attenuate"—a word used by many military men—the radar equipment that controls antiaircraft missiles. The planes used for such operations, C–130's, must fly at relatively slow speeds and at altitudes no greater than 22,000 feet to disperse the rainmaking chemicals effectively.

A number of officials confirmed that cloud-seeding had been widely used in South Vietnam, particularly in the north along the Laos border. "We tried to use it in connection with air and ground operations," a military officer explained.

One Government official explained more explicitly that "if you were expecting a raid from their side, you would try to control the weather to make it more difficult." This official estimated that more than half of the actual cloud-seeding operations in 1969 and 1970 took place in South Vietnam.

Much of the basic research was provided by Navy scientists, and the seeding operations were flown by the Air Weather Service of the Air Force.

By 1967, or possibly earlier, the Air Force flights were originating from a special operations group at Udorn air base in Thailand.

No more than four C–130's, and usually only two, were assigned in the highly restricted section of the base. Each plane was capable of carrying out more than one mission on one flight.

One former high-ranking official said in an interview that by the end of 1971 the program, which had been given at least three different code names since the middle nineteen-sixties, was under the direct control of the White House.

Interviews determined that many usually well-informed members of the Nixon Administration had been kept in the dark.

In the last year, there have been repeated inquiries and publicly posed questions by members of Congress about the weather modification programs in Southeast Asia, but no accurate information has been provided to them by the Department of Defense.

"This kind of thing was a bomb, and Henry restricted information about it to those who had to know," said one well-placed Government official, referring to Henry A. Kissinger, the President's adviser on national security.

Nonetheless the official said, "I understood it to be a spoiling action—that this was descriptive of what was going on north of the DMZ with the roads and the SAM sites."

Another source said that most of the weather modification activities eventually were conducted with the aid and support of the South Vietnamese. "I think we were trying to teach the South Vietnamese how to fly the cloud-seeding missions," the source said.

It was impossible to learn where the staffing and research for the secret weather operation were carried out. Sources at the Air Force Cambridge Research Laboratories at Hanscomb Field in Bedford, Mass., and at the Air Weather Service headquarters, while acknowledging that they had heard of the secret operation, said they had no information about its research center.

One Government source did say that a group was "now evaluating the program to see how much additional rain was caused." He would not elaborate.

EXHIBIT 3

VIETNAM WAR ECOLOGICAL DAMAGE ASSESSMENT ACT OF 1972

Mr. NELSON. Mr. President, suppose we took gigantic bulldozers and scraped the land bare of trees and bushes at the rate of 1,000 acres a day or 44-million square feet a day until we had flattened an area the size of the State of Rhode Island, 750,000 acres.

Suppose we flew huge planes over the land and sprayed 100-million pounds of poisonous herbicides on the forests until we had destroyed an area of prime forests the size of the State of Massachusetts or 5½ million acres.

Suppose we flew B–52 bombers over the land dropping 500-pound bombs until we had dropped almost 3 pounds per person for every man, woman, and child on earth—8 billion pounds—and created 23 million craters on the land measuring 26 feet deep and 40 feet in diameter.

Suppose the major objective of the bombing is not enemy troops but rather a vague and unsuccessful policy of harassment and territorial denial called pattern or carpet bombing.

Suppose the land destruction involves 80 percent of the timber forests and 10 percent of all the cultivated land in the Nation.

We would consider such a result a monumental catastrophe. That is what we have done to our ally, South Vietnam.

While under heavy pressure the military finally stopped the chemical defoliation war and has substituted another massive war against the land itself by a program of pattern or carpet bombing and massive land clearing with a huge machine called a Rome Plow.

The huge areas destroyed pockmarked, scorched, and bulldozed resemble the moon and are no longer productive.

This is the documented story from on-the-spot studies and pictures done by two distinguished scientists, Prof. E. W. Pfeiffer and Prof. Arthur H. Westing. These are the same two distinguished scientists who made the defoliation studies that alerted Congress and the country to the grave implications of our chemical warfare program in Vietnam, which has now been terminated.

The story of devastation revealed by their movies, slides, and statistics is beyond the human mind to fully comprehend. We have senselessly blownup, bulldozed over, poisoned, and permanently damaged an area so vast that it literally boggles the mind.

Quite frankly, Mr. President, I am unable adequately to describe the horror of what we have done there.

There is nothing in the history of warfare to compare with it. A "scorched earth" policy has been a tactic of warfare throughout history, but never before has a land been so massively altered and mutilated that vast areas can never be used again or even inhabited by man or animals.

This is impersonal, automated, and mechanistic warfare brought to its logical conclusion—utter, permanent, total destruction.

The tragedy of it all is that no one knows or understands what is happening there, or why, or to what end. We have simply unleashed a gigantic machine which goes about its impersonal business destroying whatever is there without plan or purpose. The finger of responsibility points everywhere but nowhere in particular. Who designed this policy of war against the land, and why? Nobody seems to know and nobody rationally can defend it.

Those grand strategists who draw the lines on the maps and order the B–52 strikes never see the face of that innocent peasant whose land has been turned into a pock-marked moon surface in 30 seconds of violence without killing a single enemy soldier because none were there. If they could see and understand the result, they would not draw the lines or send the bombers.

If Congress knew and understood, we would not appropriate the money.

If the President of the United States knew and understood, he would stop it in 30 minutes.

If the people of America knew and understood, they would remove from office those responsible for it, if they could ever find out who is responsible. But they will never know because nobody knows.

By any conceivable standard of measurement, the cost benefit ratio of our program of defoliation, carpet bombing with B–52's, and bulldozing is so negative that it simply spells bankruptcy. It did not protect our soldiers or defeat the enemy, and it has done far greater damage to our ally than to the enemy.

These programs should be halted immediately before further permanent damage is done to the landscape.

The cold, hard, and cruel irony of it all is that South Vietnam would have been better off losing to Hanoi than winning with us. Now she faces the worst of all possible worlds with much of her land destroyed and her chances of independent survival after we leave in grave doubt at best.

This has been a hard speech to give and harder to write because I did not know what to say or how to say it—and I still do not know. But I do know that when the Members of Congress finally understand what we are doing there, neither they nor the people of this Nation will sleep well that night.

For many reasons I did not want to make this speech but someone has to say it, somewhere, sometime.

Mr. President, I ask unanimous consent that the following statistics, which were provided by Dr. Arthur H. Westing and which will appear in a forthcoming publication, be printed in the RECORD at this point.

There being no objection, the statistics were offered to be printed in the RECORD, as follows:

MUNITIONS EXPENDITURES

[In millions of pounds]

Year	South Vietnam	North Vietnam	South Laos	North Laos	Cambodia	Total Indochina
1965	594	65	60	10	0	630
1966	1,778	255	135	20	0	2,188
1967	3,634	415	200	30	0	4,278
1968	5,185	330	310	40	0	5,866
1969	4,674	0	490	420	0	5,583
1970	3,333	0	655	240	115	4,344
Total	19,099	1,065	1,850	760	115	22,889

ECOLOGICAL IMPACT

Country	Number of craters (millions)	Area with "shrapnel" (million acres)	Area cratered (thousand acres)	Earth displaced (million cu. yds.)
South Vietnam	19.1	23.9	309.9	2,500
Military region I	(6.1)	(7.6)	(98.4)	(794)
Military region II	(3.8)	(4.8)	(62.0)	(500)
Military region III	(8.3)	(10.3)	(134.2)	(1,083)
Military region IV	(.9)	(1.2)	(15.3)	(124)
North Vietnam	1.1	1.3	17.3	139
Laos	2.6	3.3	42.4	342
Southern Laos	(1.8)	(2.3)	(30.0)	(242)
Northern Laos	(.8)	(1.0)	(12.3)	(99)
Cambodia	.1	.1	1.9	15
Total Indochina	22.9	28.6	371.4	2,996

ALL INDOCHINA

[In millions of pounds]

Year	Air munitions	Surface munitions	Total munitions
1965	630	----------	630
1966	1,024	1,164	2,188
1967	1,866	2,413	4,278
1968	2,863	3,003	5,866
1969	2,774	2,808	5,583
1970	1,955	2,389	4,344
Total	11,112	11,777	22,889

IMPACT OF U.S. MUNITIONS

[In pounds]

Expenditure	South Vietnam	North Vietnam	Laos	Cambodia	Total Indochina
Per acre	466	26	45	3	125
Per person	1,091	58	992	18	513

B-52—ASSUMING AN AVERAGE OF 7 SORTIES PER MISSION

[In numbers of missions]

Year	Military region I	Military region II	Military region III	Military region IV	Total South Vietnam
1967	527	284	269	10	1,090
1968	1,137	644	1,143	148	3,072
1969	319	440	1,777	98	2,634
1970	624	274	366	150	1,414
Total	2,607	1,642	3,555	406	8,210

Note: Although breakdowns for 1965 and 1966 are not available, the totals approximate 138 and 550, respectively.

EXHIBIT 4

[From the CONGRESSIONAL RECORD, Aug. 25, 1970]

ENVIRONMENTAL WARFARE

Mr. NELSON. Mr. President, in 1962, with no idea of what the consequences would be,

the United States began a new form of warfare on the environment of Vietnam that is likely to have future disastrous reactions on all forms of life in that small Southeast Asian nation.

In a little more than 8 years, the United States has sprayed more than 100 million pounds of assorted herbicide chemicals over more than 5½ million acres of Vietnam to defoliate forests and kill food crops allegedly grown to supply enemy forces. The United States has sprayed enough chemicals to amount to 6 pounds for every man, woman and child in that country.

Never in history has any nation ever declared war on the environment of a nation, and the United States has embarked on this unprecedented ecological experiment without adequately investigating the chemicals used to see if they would have any dangerous consequences to humans and all other forms of plant and animal life.

This Nation may well have set an ecologic time fuse in Vietnam that will reverberate down the life chain causing widespread destruction by wiping out forms of plant, animal, and aquatic life that can never be replaced, with implications for the people who live there that cannot be evaluated until some time in the future.

Distinguished scientists the world over are becoming increasingly alarmed over man's massive environmental intrusions which are disrupting life systems on a global scale. If for another 50 years we pursue the present course of unabated accelerating pollution of the land, the air, and the water, it spells disaster of unmeasurable proportions. Neither conventional nor nuclear war poses a threat as certain or as serious.

Among the critical environmental pollutants is a class of chemicals called herbicides, now being widely used as defoliants and plant killers. The immediate question is whether we will have the foresight at this point in history to eliminate this chemical as an instrument of war.

Several questions require urgent consideration:

If our role is to defend Vietnam, how can we risk destroying the environment in which they must survive when we leave?

Do we intend to be the only country in the world that defends these chemicals as valid military weapons?

By our continued use do we intend to put out stamp of legality on it?

If we claim the right to destroy agricultural crops with it on the theory that it denies food to the enemy, what real limits are there to its use? Will it not then provide justification for any country in the future to engage in starvation warfare by spraying all crops on the ground that it is necessary in order to deny food to the fighting troops?

If in World War II these chemicals had been available and used by all countries in the same density as we have used it in Vietnam—6 pounds per person—what would be the worldwide consequences?

This is a cheap weapon, and it does not take much sophistication to use it. Do we endorse the proliferation of this weapon into the hands of all nations, developed and developing alike, so that they can engage in anticrop and environmental warfare?

Measured in the long view and, in fact, in the short view, is it not in the best interest of our Nation and the world that we now renounce its use in a worldwide agreement to eliminate it as an instrument of warfare?

Independent scientists have only recently begun to study the cancer-causing, mutation-inducing and fetal-deforming effects of the chemicals used to remove the leaves from plants and destroy food crops.

Dr. Arthur W. Galston, a Yale University biologist and a distinguished authority on herbicides, warned in a recent Washington, D.C., conference that the environmental warfare the United States is conducting in Vietnam may "so alter the ecology of a large region that permanent scars will be left."

In a transcript of his remarks that will appear in the forthcoming book, "War Crimes and the American Conscience," edited by Erwin Knoll and Judith Nies McFadden, Galston charged:

"It seems to me that the willful and permanent destruction of environment in which a people can live in a manner of their own choosing ought similarly to be designated by the term ecocide. . . . At the present time, the United States stands alone as possibly having committed ecocide against another country, Vietnam, through its massive use of chemical defoliants and herbicides."

Mr. President, we will be voting on this amendment which I introduced on July 16, 1970, for myself and Senator CHARLES GOODELL and nine cosponsors. It is the environmental warfare amendment to the military authorization bill for procurement, H.R. 17123.

The amendment would terminate the use of herbicides by the United States as an instrument of war in Vietnam and elsewhere. Specifically, it would prohibit the United States from using antiplant chemicals for military application, would prevent the transfer of such weapons and the equipment necessary to spread the chemicals to another country for it to use, and would provide for the elimination of the present stockpile of the chemical compounds and all herbicidal equipment related to such use—directing the equipment be used for other purposes.

The chairman of the Senate Armed Services Committee is to be commended for taking the initial step in attempting to find out what the effects of the environmental warfare program have been in Vietnam. Section 506(c) of the military authorization bill for procurement calls for the Secretary of Defense to enter into appropriate arrangements with the National Academy of Sciences for the purpose of conducting a comprehensive study and investigation to determine the ecological and physiological dangers inherent in the use of herbicides and the ecological and physiological effects of the defoliation program carried out by the Department of Defense in South Vietnam. The report is to be transmitted by the Secretary of Defense to the President and the Congress by March, 1972.

A comprehensive study should, of course, be made, but even the Department of Defense has said such a comprehensive study could not be completed in any meaningful way in the next 18 months because it will take much longer to accurately know what the consequences will be from our extensive use of herbicides. A further complication is that most of the defoliated area is still under enemy control and it will not be possible to get into those areas with a scientific investigating team until the war has ended.

The Department of Defense failed in its responsibility to carefully study the long-range effects of the use of herbicides on man, his environment and the vast array of creatures living there before engaging in this intolerable kind of chemical warfare that may cause irreversible and disastrous future damage.

In 1969, the General Assembly of the United Nations passed by a vote of 80 to 3 a resolution that declared the use of military herbicides a form of chemical warfare which is forbidden under the Geneva Protocol. The United States, Australia, and Portugal were the only dissenters.

The United States has pledged itself to uphold the Geneva Protocol ban against the first use of chemical weapons, but has never officially ratified the agreement. Instead, the United States has been actively using antiplant chemicals in unprecedented amounts in Vietnam and has the questionable distinction of setting the precedent in this kind of warfare.

Just last week the President sent the 1925 Geneva Protocol agreement to Congerss to approve its ratification, but argued that the use of tear gas and chemical herbicides were not to be considered as part of the 45-year-old ban. The President's action is to be applauded especially since this country is the only major military power in the world not to have signed the agreement. Environmental warfare through the use of herbicides, however, is irresponsible, and we have now learned enough about the dangerous implications of environmental warfare to join the other responsible nations of the world who have prudently agreed it is a dangerous activity that must be stopped.

Even before the Geneva Protocol agreement, the United States was party to the "Hague Regulations With Respect to the Law and Customs of War and Land" annexed to the Hague Convention of 1907. Article 23, paragraph (a) of those regulations specifically states:

"It is especially forbidden to employ poison or poisoned weapons."

The Army has interpreted this restriction in its Field Manual, Law of Land Warfare, FM 27–10, page 18, which states:

"Relevant treaty position is that it is especially forbidden to employ poisoned weapons.

"The foregoing rule does not prohibit measures being taken to destroy through chemical or bacterial agents harmless to man, crops intended solely for consumption by the Armed Forces (if that fact can be determined)."

In light of these policy positions, two major points are raised. First, are we sure that we are not employing a poisonous chemical harmful to man to destroy crops? Have there been any tests conducted in Vietnam to determine conclusively that agent blue, which contains cacodylic acid, has not poisoned North Vietnamese, Vietcong or South Vietnamese? The areas sprayed, by the Department of Defense's own admission, are remote and controlled by the guerrillas. So it is virtually impossible to know whether we are or are not violating the Hague Convention until the war is over.

How do we know that the only crops destroyed are "intended solely for consumption by the Armed Forces—if that fact can be determined? Some 500,000 acres of rice and other food crops have been destroyed since 1962. Up until 1967 or 1968, agent blue rained down on rice paddies in areas controlled by the guerrillas.

It is well proven that a substantial percentage of the food crops killed were grown by civilians for civilians. There have been studies conducted by and for the Department of Defense that differ greatly over the military effectiveness of the anti-crop program, including the point about whether and to what extent civilian crops are affected.

The Army steadfastly maintains that 100 percent of crops destroyed by chemicals are grown by or for the Vietcong. Even that stand can be challenged by a glaring gap in its logic. The Army is obviously assuming that any rice crop grown for guerrillas is for them exclusively, with no part of the crop intended for consumption by non-Communist farmers.

The weakness of that assumption was evident in hearings of the House Sobcommittee on National Security Policy and Scientific Developments, chaired by Representative Clement Zablocki, (Democrat of Wisconsin), entitled "Chemical-Biological Warfare: U.S. Policies and International Effects," in November and December 1969. These important hearings dealt at length with the use of herbicides and tear gases in Vietnam. One of the witnesses, Rear Adm. William E. Lemos, Director, Policy Plans and National Security Council Affairs, Office of the Assist-

ant Secretary of Defense for International Security Affairs, was questioned on the anticrop program.

A dialog between Congressman Fraser, (Democrat of Minnesota), and Admiral Lemos follows:

"Mr. FRASER. Your statement on crop destruction on page 13 says that crops in areas remote from friendly populations and known to belong to enemy that cannot be captured by the ground operations are sometimes sprayed.

"Admiral LEMOS. We are really talking about very isolated crops in areas of known Vietcong and North Vietnamese army units, and which are clearly a part of that complex and being grown by them, or by people forced by them to grow for them.

"Mr. FRASER. How can you determine whether or not the crops are being grown by direction of the VC?

"Admiral LEMOS. By the proximity of the main force VC and North Vietnamese units and by information derived from the people in the surrounding area.

"Mr. FRASER. As I understand it, we are under an injunction under the Hague Convention not to destroy crops which may be in part for the use of the population, is that right?

"Admiral LEMOS. Yes, sir.

"Mr. FRASER. How are we able to verify adequately whether or not the crops are in fact aimed just for the fighting units or may not, in fact, be intended for noncombatants—I know that is a difficult problem in this kind of war.

"Admiral LEMOS. It is very difficult.

"Mr. FRASER. How do we determine that under these circumstances?

"Admiral LEMOS. As I indicated, we take extensive aerial photographs of every area where such a proposal is made and those aerial photographs are very carefully analyzed by a broad spectrum of people and if the crops are close to populated areas, they are not subjected to herbicides.

"Mr. FRASER. What do you mean by "populated areas?"

"Admiral LEMOS. I can't give you the specific cutoff, but the crop destruction program is associated with enemy camp areas and not the villages and hamlets.

"Mr. FRASER. How can you be sure (that you are destroying only guerrilla crops)?

"Admiral LEMOS. All you can do is the best possible.

"Admiral LEMOS (continuing). There has to be substantial evidence that the crops are being grown specifically for the use of Vietcong troops and North Vietnamese troops."

During the same hearings, Thomas R. Pickering, Deputy Director, Bureau of Political Military Affairs, Department of State, commented on the degree of proof in an anti-crop mission. He said agent blue was used where it is believed that the food crops involved are for the use of the Vietcong and North Vietnamese military forces in the area. Without getting into a discussion on what degree of certainty each of these Government officials had in mind and without revealing testimony discussed during executive session to demonstrate the counterproductive aspects of this policy. Admiral Lemos' comments are very revealing. Lemos said that crops are sprayed only in areas that cannot be captured by ground action.

The admiral admitted that in making the "yes" and "no" decision "all you can do is the best you can." If, as some sources have indicated, a substantial percentage of all crops destroyed—500,000 acres, or 781 square miles—were to be consumed at least in part by friendly South Vietnamese, then the "our best" is incredibly poor or else the product of gross negligence.

The antiplant program in Vietnam and the anticrop program in particular are having adverse effects on the noncombatant South Vietnamese. The report of the Student Task Force for Washington Research on Chemical-Biological Warfare, prepared by a group of Princeton students on June 1, 1970, is a well-documented analysis of the herbicide program. The report states:

"The main result of the food denial program seems to have been the creation of thousands of refugees. When their crops turn yellow and die, peasants are forced to leave their homes and travel to the cities or to refugee camps maintained by the Saigon government at American expense. Food may be available here, but the living conditions are less than desirable. Abhorrent though the thought is to American civilians, the creation of refugees seems to have been and may still be the ultimate goal of the program. Representative Richard C. McCarthy (in his book, *The Ultimate Folly*) quotes ex-Presidential Science Advisor, Donald F. Hornig, as saying that the program is designed to force farmers outside of American/South Vietnamese held areas to abandon their farms and move into our sphere of influence. The Department of Defense denies that this is their goal, but even they cannot deny that this is a result of a program they insist on continuing."

The ad hoc international scientific commission composed of four scientists—Drs. A. H. Westing, plant physiologist, and E. W. Pfeiffer, animal physiologist, both of the United States; and Dr. Jean Lavorel, plant biophysicist, and Leon Matarasso, lawyer both of France—in their "Report on Herbicidal Damage by the United States in Southeastern Cambodia," presented a graphic example of the effects of herbicidal warfare on the civilian population:

"A large variety of garden crops (both agricultural and horticultural) were devastated in the seemingly endless number of small villages scattered throughout the affected area. Virtually all of the *ca.* 30,000 local inhabitants are subsistence farmers that depend for their well-being upon their own local produce. These people saw their crops, then growing, literally wither before their eyes. Indeed, it was the widespread death of the vegetables that heralded the rest of the damage to the area. Their then current crops of vegetables of numerous kinds, pineapples, of jackfruit, of papayas, and of many more were simply destroyed.

The stated policy of the military is to use herbicides in remote areas of low population "not exceeding eight persons per square kilometer" or 21 persons per square mile. Yet, evidence has indicated that crops have been destroyed in areas where the population density is as great as 1,000 person per square mile.

Even more damaging is the Department of Defense's public admission:

"Approval (for anti-crop mission) includes arrangement for indemnification, if later necessary, as well as plans for supplying food to the South Vietnamese who might thereby be denied food sources."

General Blanchard, in his official statement in a briefing with Senator THOMAS MCINTYRE, said:

"Such targets (anti-crop targets) are carefully selected so as to attack only those crops known to be grown by or for the Viet Cong or North Vietnamese."

If, as Admiral Lemos admits, it is difficult to make that determination, and if we only attack Vietcong or North Vietnamese crops as General Blanchard so categorically states, then why do we enunciate a policy of paying those South Vietnamese citizens who are deprived of their food source? It would seem clear that this is an obvious violation of the Hague Convention of 1907.

Alarming reports from official Government sources and independent scientists are beginning to show that the careless use of antiplant chemicals may be endangering a vast variety of plant and animal life and in some places destroying vital soil organisms. Distinguished scientists fear, for example, that vast timber areas sprayed as suspected Vietcong hiding places may not recover, or may take a number of years returning to normal growth. No one can accurately predict what some of the chemicals used will do to other organisms and plant and animal life, but recent research is proving that it is not enough to study whether a chemical is toxic to animals.

Until the past 5 or 10 years, researchers testing a new chemical were satisfied if the agent fed to a laboratory animal did not kill him. They know now that that is not enough. Some chemicals which are harmless in a toxicity test, will later turn out to be carcinogenic—cancer-inducing, mutagenic—mutation inducing, or teratogenic—inducing abnormalities in developing embryos. The thalidomyde disaster of a few years ago and other recent findings linking cancer with seemingly "safe" chemicals and food additives, points to the need to test new compounds in more sophisticated ways to determine that they will not be harmful to humans and other forms of life.

This kind of careful, sophisticated testing was not conducted on the herbicidal compounds before the United States began using them in Vietnam.

The U.S. environmental warfare program moved from limited testing in 1961–62 to the reduction of foliage along roads and waterways in 1963. In 1964, the military began destroying crops allegedly grown by or for the enemy forces and then began spraying large tracts of swamp and forests in 1965–66. By 1967–68, more than 2,000 square miles a year were sprayed at an annual expenditure of some 8 million gallons of the chemicals. By 1970, 5½ million acres, or 12 percent of Vietnam was defoliated, an area about the size of the State of Massachusetts.

Three herbicide compounds used in Vietnam are known by the code names—agents orange, white, and blue. Orange and white are defoliants and agent blue is used to destroy crops.

Agent orange is a mixture of 2,4-D and 2,4,5-T and was the most common herbicide used in Vietnam. White is a mixture of 2,4-D and picloram in a water base. It is less volatile than orange and hence is used where drift damage to friendly crops is feared. Blue is a water solution of cacodylic acid and is used to destroy rice and other food crops.

Of the four chemicals used in the three herbicides, two have been tested extensively. The chemical 2,4,5-T was shown to cause fetal deformities in chicken embryos, mice, and rats. Because of these findings, the U.S. Surgeon General restricted the domestic use of the chemical. The following day, April 15, 1970, the Deputy Secretary of Defense banned the use of Agent Orange in Vietnam. Up to that point, the United States had sprayed 40 million pounds of 2,4,5-T over the Vietnam landscape.

The chemical 2,4-D has also been shown to cause fetal deformities in tests on chicken embryos and hamsters. Comprehensive testing of this chemical is continuing at Food and Drug Administration laboratories and the National Institute of Environmental Health Sciences. The Surgeon General has not imposed restrictions on 2,4-D because he said the tests were still not conclusive enough.

While some tests are underway, the attention the Federal Government gave 2,4,5-T and 2,4-D has not been given picloram and cacodylic acid.

Picloram is a highly persistent chemical that some scientists maintain is the herbicidal equivalent of DDT. Like DDT, picloram has been used extensively both domestically and internationally without any comprehensive studies to determine what long-term effect it has on the natural environment.

After some 26 years of extensive and widespread usage, it was not until Rachel Carson published her dramatic volume, "Silent Spring," that extensive studies finally showed that DDT was a persistent, long-lasting chemical compound that had spread throughout the environment, endangering many species of life and causing serious future consequences no one can predict. Government experts have admitted that they do not know how long-lasting or persistent picloram is.

With the discontinuation of Agent Orange containing 2,4,5-T, picloram was given greater usage in Vietnam because it appeared to be innocuous. In feeding tests with laboratory animals it showed up quite nonpoisonous.

Recent tests, however, presently being performed by W. T. Jackson and O. R. McIntyre at Dartmouth University have shown that the chemical causes an inhibition of protein synthesis in human white blood cells tested outside the body in test vessels and an inhibition of normal cell division patterns. Preliminary research at the Food and Drug Administration is finding some malformation in development induced by this compound.

The lengthy life picloram has in the soil was reported in an article in the Dow Chemical Co. house organ, "Down to Earth." The magazine of the company that produces the chemical compound said that in certain soils less than 3.5 percent of picloram disappears after 467 days; in other soils as much as 20 percent disappears.

Those are remarkably low levels of disappearance and if picloram is applied to soils year after year, scientists predict that a gradual build-up is inevitable. The fact that picloram apparently has an effect on cell division together with the fact that no single microorganism is known which will degrade picloram, graphically shows that in some respects this herbicide is as dangerous as DDT and is so persistent that it should not be used as a herbicide in any indiscriminate manner.

The fourth herbicide used in Vietnam, cacodylic acid, is 54 percent arsenic. It is alleged in the usual feeding toxicity tests to be no more toxic than aspirin. Research scientists report that cacodylic acid in an organic state is generally not considered harmful. They warn, however, that no one knows if some microorganism in the soil or water might react with the relatively stable arsenic atoms and transform the chemical into a deadly compound that could cause catastrophic ecological consequences.

Scientists have warned that there are several other possible long-term ecological dangers from the military application of chemical defoliants in Vietnam. They include laterization, or irreversible hardening of soil no longer protected from the sun by foliage; permanent destruction of mangrove swamp forests; poisoning of aquatic life by runoff into the water system, elimination of many forms of animal life and opening up vast areas to the permanent invasion of fast-spreading undesirable plants like bamboo, forcing out the future growth of normal plant life.

The implications of herbicidal warfare in Vietnam were discussed in part recently at hearings before the Senate Committee on Foreign Relations. In response to questions from the committee chairman Donald G. MacDonald, the Director, U.S. Agency for International Development, Vietnam, since 1966 said:

"The damage done to the economy on the permanent basis is a subject of great interest obviously to me as the head of the AID program in South Vietnam, and I have studied it rather closely. There is, I suppose one could say, an enormous physical loss of forests as a result of defoliation."

Hardwood forests cover about two-thirds of Vietnam and formally employed about 80,000 persons in the timber industry. About 2,500,000 acres have been sprayed with one treatment of agent orange, causing a 10 to 20 percent permanent kill. Another 1,250,000 acres have been sprayed two or more times with a 50 to 100 percent permanent kill.

Without even considering the incalcuable ecological implications of such extensive killing of trees and plants, the destruction of so much timber could be a very serious economic blow to Vietnam since timber is potentially the greatest export of the country.

The long-term effect of massive spraying upon the forest and its life systems is anybody's guess—and it is a matter too important to guess about.

Two zoologists, Gordon H. Orians and E. W. Pfeiffer, in a recent article on the "Ecological Effects of the War in Vietnam" in Science magazine found that the almost complete destruction of all the vegetation on the mangrove areas that had been sprayed had a severe effect upon the animals living there:

"During our tour of the defoliated areas, we did not see a single species of insectivorous (insect eating) or frugivorous (fruit eating) birds with the exception of barn swallows . . . which are migrants from the north."

An international scientific investigative team, assessing the damages to the unexplained defoliation of some 173,000 acres in Cambodia which occurred in late April and early May 1969, said in their December 1969 report:

"It is interesting to note that eastern Cambodia in general has experienced quite a substantial increase in a variety of wildlife, apparently driven out of Vietnam by the defoliation and other ravages of war. Included are munjacs, and other species of deer, wild cattle (Gaurs, Bantengs and some Koupreys) elephants, a number of monkeys species and wild pigs."

Dr. J. B. Neilands, a University of California biochemist, has listed some of the animal species of Vietnam which are known to be in danger of extinction. The douc langur and the Indochinese gibbon, both on the verge of extinction, it is feared, will be wiped out completely since these creatures exist exclusively on a variety of plants growing in the heavily defoliated areas.

It can be supposed that some will argue that the destruction of some animal and plant species is relatively unimportant in relation to the war effort. But if the wildlife is being destroyed, what then is happening to the delicate tropical ecosystems comprising the complex relationship of all plant and animal life? A even more pressing question is what effect, direct and indirect does the herbicide program have on the people of South Vietnam? And finally, what exactly are the limits, if any, to a military program such as this and what are the moral implications?

The poisoning of aquatic life by runoff into the water system is a real problem in Vietnam. Marine fauna are known to be injured and killed by 2,4-D and 2,4,5-T, the major defoliant chemicals. Tests of the effect of from one to two parts per million of 2,4-D showed it had a deleterious effect on mayfly nymphs, leeches, clams, and snails.

Dr. Galston point out that—

"The estuarine environment in which the mangrove grows is tremendously important to shellfish and migratory fish, which deplete a portion of their life cycle in the ecosystem enveloped by the mangrove roots. With these plants killed, the fish will probably go elsewhere. This will lead to a decline in the fish and shellfish catch, which constitutes an important source of protein and essential amino acids."

In 1968, aware that there was little data on the ecological effects of the military use of herbicides in Vietnam, the State Department sent F. H. Tschirley of the Department of Agriculture to make a 30-day study. Tschirley's report indicated the military defoliation program "is having a profound effect on plant life in Vietnam."

One of the long-range effects that Tschirley found was in the massive destruction of mangrove forests. He declared that mangroves are extremely susceptible to defoliants and that one application was sufficient to kill most trese. He reported visiting the Rung Sat Peninsula that was still completely barren, even though it had been sprayed years earlier. He estimated it would take about 20 years for the reestablishment of a mangrove forest.

Zoologists Gordon H. Orians and E. W. Pfeiffer in their recent Science magazine article argued, however, that Tschirley's estimate was conservative because it was based on the assumption of the immediate redistribution of seeds to the defoliated areas and the presence of suitable germination conditions when they arrive.

Emphasizing the lack of knowledge on the use of defoliants, the zoologists contended that there is reason to believe that the timetable for mangrove regrowth may well be longer than 20 years.

There are areas of sprayed mangrove forests in Vietnam defoliated in 1961 that still have shown no significant recovery.

Most of the defoliation has occurred along a strip extending from the northern boundary of South Vietnam through the center of the country halfway to the southern tip and also along the Ho Chi Minh Trail from Laos as it leads into South Vietnam. Defoliation on a smaller scale is being conducted in Thailand. The ecology of tropical forests is discussed in "A Legacy of Our Presence: The Destruction of Vietnam," prepared by the Stanford biology study group. The report states:

"Tropical forests and soils are very different from those in the temperate zone. Thus to understand the long-term effects of the war in Southeast Asia it is necessary to describe ceratin characteristics of tropical forests and soils.

"One such feature is the intricate interdependence of the plants and animals. For instance, the trees of tropical forests depend entirely upon insects, birds and bats (rather than wind) for pollination. Birds, bats and ground dwelling mammals are responsible for dispersing seeds from the parent plants to new clearings. These complex plant-animal relations have reached their greatest intricacy in tropical forests because of the mild and predictable climate. Animals can be active the year around because many flowering and fruiting trees provide food continuously. Massive defoliation means an end to this reliable food supply and death for those animals that are most important to the survival of the forest plants."

The U.S. defoliation program has set the stage for irreversible environmental damage. The flora and fauna depend on one another. If you destroy one, you almost inevitably destroy the other.

The study group also discused the unique problem of laterization, or the irreversible hardening of soil no longer protected from the sun by foliage. The report stated:

"From 30 to 50 percent of Vietnamese soils are of a type which have the potential to turn into a brick-like substance, known as laterite, if they are deprived of the organic covering which protects them from exposure to severe weathering. The potential for laterization is greatest in areas which were already disturbed before herbicide application. Cropland, as well as bombed and bulldozed areas along roadways, fall into this category. The permanence of laterite is well illustrated by the Khmer ruins around Angkor Wat in Cambodia where many of the temples were constructed primarily of this rock nearly ten centuries ago. Obviously, laterized land is useless for agriculture."

More incredible than Operation Ranchhand where the popular slogan is "Remember, only you can prevent forests," the military dreamed up Operation Sherwood Forest and Operation Pink Rose. The rationale was that after defoliating a forest, fire raids similar to the fire bomb attacks on Dresden and Tokyo in World War II would completely decimate jungle areas of South Vietnam. As Thomas Whiteside wrote in his book "Defoliation":

"The ultimate folly in our defoliation operations in Vietnam was possibly achieved during 1965 and 1966, when the military made large scale efforts in two defoliated areas to create fire storms—that is, fires so huge that all the oxygen in those areas would be exhausted. The apparent intention was to render the soil barren. (A fire storm would also, of course, have the result of burning or suffocating any living being in the area.) Operation Sherwood Forest, conducted in 1965, was an attempt to burn a defoliated section of the Boi Loi Woods. In October, 1966, the military began Operation Pink Rose, a similar project. Neither of the projects, in which tons of napalm were thrown down on top of the residue of tons of sprayed 2,4,5-T succeeded in creating the desired effect . . ."

Before the U.S. Surgeon General banned the use of 2,4,5-T, the military took a hard line on the chemical's dangerous effects and maintained there was no correlation between the use of his defoliant and any hazards to human health.

On October 30, 1969, the Department of Defense stated in a press release:

"The policy of the Department of Defense always has been to use Orange (a liquid solution of 2,4,5-T and 2,4-D) in remote areas away from the population. This policy is being reiterated and emphasized; additional precautions are being taken to insure that Orange is not used in populated areas."

This policy statement raises one crucial point. What does the phrase "away from population" mean? A recent column by Daniel Deluce of the Associated Press reports that in areas of the Mekong Delta where Americans fought "there are empty fields, cratered by bombs, growing only weeds, coconut palms killed by defoliants lean crazily. The farm houses have vanished." The most highly populated rural area in South Vietnam has been defoliated.

However, it is interesting to note that the Department of Defense planned to conduct a survey by going through Vietnamese hospital records to determine if there is a correlation between herbicides and the rate of miscarriages, still births, and fetal deformities. The study group concluded before they began that the study could not be conducted. They conducted a general survey that proved nothing. The report of the study is unclassified, but the Department of Defense refused to make it public, ostensibly on the basis of an agreement with South Vietnam. Nobody is to see the study until it is published. Yet in talking to Department of Defense officials, no one was sure even who in Defense could see it.

In spite of the Saigon and Hanoi newspaper allegations to the contrary, the military has steadfastly maintained that there have been no claims on South Vietnam or the United States for any health hazards caused by defoliants. At the same time, over $3 million in claims to property damage have been honored by the Government of South Vietnam and paid through counterpart funds by the United States.

Bionetics Laboratory conducted a study of the teratogenic or birth deforming effects of 2,4,5-T and 2,4-D in 1968. The results showed that both chemicals, the major defoliants in Vietnam, possibly have teratogenic effects. That study was not released until late 1969. The Federal Government took action only after a number of articles by Thomas Whiteside appeared in the New Yorker and only after the Senate hearings, "Effects of 2,4,5-T on Man and the Environment."

The International scientific commission that went into Cambodia in late 1969 to study the effects of defoliation on the environment that occurred earlier that year discussed in their report the health hazards defoliants have on animals. The study declared:

"All of the interviews with the local inhabitants consistently disclosed that village livestock became ill for a period of several days soon after spraying. Whereas the larger animals (water buffaloes, cattle and mature pigs and sheep) became only mildly ill and all recovered, some of the smaller ones (chicken, ducks and young pigs) suffered more severely and in some cases were reported to have died. The domestic mammals were described as having digestive problems, whereas the domestic birds became partially paralyzed. Apparently many wild birds became similarly disabled and could be captured easily. There were also a number of small dead birds found at the time in the woods and fields."

An article in an April issue of the London Times stated that the British Forestry Service had also seen many paralyzed birds when they sprayed 2,4,5-T. This was in addition to the dizziness and nauseous feeling the people spraying had experienced themselves.

On ABC–TV, July 27, 1970, a program entitled, "The Poisoned Planet," which depicted the serious state of affairs in the world since the wide-spread use of pesticides and herbicides, showed several vivid shots of birds trembling helplessly in reaction to herbicide spray.

Dr. Jacqueline Verrett, who was instrumental in determining conclusively for the Food and Drug Administration that 2,4,5-T was teratogenic, has tested samples of orange and white and found that they both produced fetal deformities in her laboratory experiments. The State Department has admitted that agent orange and white were used in the mysterious herbicidal attack on Cambodia last year.

The ad hoc independent scientific commission, when in Cambodia, interviewed many of the local inhabitants about human health effects from the mysterious spraying.

"Many (people) spoke of widespread temporary diarrhea and vomiting, particularly among infants and to a lesser extent among the general adult population. At one location (Chipeang) water was trucked in for a time following spraying to provide uncontaminated water for the children. In those instances where the people depended largely upon deep wells for their water supply we received no report of human digestive problems."

The New York Times reported on June 6, 1969:

"Many residents of the area (Fish Hook) reported to have been affected by the defoliation suffered from diarrhea, vomiting and colitis."

Keeping these factors in mind, the anticrop program is particularly worthy of discussion.

The World Health Organization in its report, "Health Aspects of Chemical and Biological Weapons," published in 1970, defined chemical agents of warfare to include all substances employed for their toxic effects on man, animals and plants. They later added:

"Very little is known about the chronic toxicity or long-term effects of anti-plant agents, for example, their teratogenicity or carcinogenicity. In this connection it must be borne in mind that the military employment of anti-plant chemicals may lead to their intake, by humans in water and food, in dosage far higher than those experienced when the same chemicals are used for agricultural and other purposes. While it may be untrue to say that the possibility of chronic toxicity has been entirely ignored, it cannot be said that it has received anything approaching adequate study."

On both the political and military level, the anticrop program is a dangerous facet of environmental warfare because it can be directed in a punitive way and bring about starvation in a massive and indiscriminate manner. Who is to say when some nation will decide to use it for that purpose too?

During last April and early May 1969, 173,000 acres or 270 square miles of the Fish Hook area of Cambodia was sprayed with defoliants, confirmed to be agents orange and white. The Cambodian Government subsequently claimed $8.7 million—now $12.2 million—in compensation from the United States for heavy damage to 37,000 acres of rubber and fruit trees several miles inside the border. Because this was an international incident, the State Department sent a governmental team of technical experts to Cambodia to assess the damage.

The State Department unequivocally denied U.S. involvement in the incident and that no other party could be found at fault. One is entitled to wonder who else in that war has the planes and equipment to engage in this kind of warfare?

The report to the State Department of July 1969 concluded that—

"Defoliation of rubber, fruit and forest trees farther north (of the Cambodian border) was probably caused by a direct spray application by an unknown party. . . ."

Thomas Pickering, Deputy Director, Bureau of Political-Military Affairs, Department of State, submitted the following statement to the House Subcommittee on National Security Policy and Scientific Developments in December, 1969, that—

"The greatest part of the damage was caused by a deliberate and direct overflight of the rubber plantations."

In contrast, the Department of Defense on May 22, 1970, asserted that—

"The defoliation of Cambodia was neither punitive nor in preparation for military action."

How could the DOD maintain that it was "neither punitive nor in preparation for military attack," while Pickering, speaking for the State Department, asserted that the defoliation was "deliberate?" Since the official position is that the United States was not found culpable, it is, indeed, surprising that the State Department is still considering the claim. The State Department and the DOD could not determine the intent of the mission unless they know about the origin of the mission.

Finally, Mr. President, I refer to the second part of the environmental warfare amendment, which states that the United States shall be prohibited from entering into or carrying out any contract or agreement to provide agents, delivery systems, dissemination equipment or instruction for the military application of anti-plant chemicals.

In other words, the amendment would not allow our country to turn over to the South Vietnamese or any other country this indiscriminate weapon of warfare.

The indiscriminate, extensive use of herbicides is further compounded by the fact that, even while a proposed study is underway to examine the effects of the antiplant chemicals, the U.S. Armed Forces are in the process of turning command and control of the herbicidal program over to the South Vietnamese as part of the administration's Vietnamization plan.

With such little scientific knowledge available on the environmental implications of the use of herbicides, this nation cannot be permitted to allow the proliferation of this dangerous kind of environmental warfare, especially proliferation into the hands of the South Vietnamese Government.

General Blanchard, in his Senate briefing of April 29, 1970, asserted that the United States was considering how to transfer the herbicidal program to the South Vietnamese. The DOD letter of May 22, 1970, to the committee on CBW, composed of Princeton University students, stated quite the contrary:

"When the United States instituted a ban (April 15) on the use of 2,4,5–T in military operations, the South Vietnamese government instituted a similar ban. The United States will not supply 2,4,5–T to SVN or other governments until the problem of teratogenic effects has been resolved."

Clearly, before General Blanchard had made his presentation, the United States had been supplying herbicides for military application to South Vietnam. It appears from the DOD statement that we were providing agent orange to other governments, which raises even graver issues.

The forcing function of technology has allowed the introduction of a new form of warfare. A type that is of questionable military value, ecologically and biologically damaging and politically explosive. We have to develop new attitudes so that we will not automatically equate technology with progress and efficiency and will not see it as a panacea to cure the problems of the Nation and the world.

The entire planet is facing an environmental crisis because progress for the sake of progress became the standard for success. In the wake of this mad rush to accomplish and be successful, man has violated earth with his impatience.

Technology and science provided the short cuts to eliminate pests with pesticide compounds that were used indiscriminately and man irritated and surprised when he found that the chemicals were destroying and threatening to destroy other forms of life.

He dumped the wastes of his advanced civilization into the water systems and seas and was irritated and surprised to learn that the waters of the water planet had a saturation point.

He exhausted the fumes of his industries and his motors into the thin envelope of air surrounding the planet and was irritated and surprised when the air became clogged and choked many of his major cities.

Now there is a new advancement. Chemical compounds have been found that can destroy plants that man finds undesirable along his roads and highways. Science and technology have produced chemicals that efficiently and economically can be used militarily to destroy the foliage suspected to be hiding an enemy or kill the crops believed grown to feed him.

Unfortunately, like so many other of the rapid advancements of his society, man created another potential for disaster. By engaging in warfare on the environment this country has taken the leadership in conducting a long range warfare on man himself and future generations, friend and enemy alike.

Mr. NELSON. 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. STENNIS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

Mr. STENNIS. Mr. President, let me say this in response to the amendment sponsored by the Senator from Wisconsin (Mr. NELSON), that it actually addresses itself to two different subject areas. Both areas are, of course, of interest. There are, perhaps, several valid points concerning them in the Senator's amendment. However, there are other issues contained here which I feel should not be given superficial treatment without adequate determination of the facts. In the case of the weather modification research, we are all aware that our colleague, Senator PELL of Rhode Island, is currently conducting hearings, aimed at gaining an appreciation of both what we do and do not know about our capabilities to affect weather, and to determine if the state of the art has reached a point where international agreements should be considered.

On the second part of the amendment we appear to be dealing with alleged facts concerning, and I quote "so-called firestorms." Our staff tells me that the substance of paragraph 2 of this amendment apparently comes from an article in this months edition of Science magazine. The committee has not been asked by any member of this body to evaluate this subject before. So we cannot accept assumptions as facts of substance to consider attaching them to the authorization bill.

Under the circumstances, even without the time to fully evaluate and determine the facts, we are willing, though, to accept the amendment and take it to conference. Between now and the conference, more definite information can perhaps be obtained on this matter of the weather.

Mr. President, this is an effort to get at the situation, on a factual basis, for further consideration. I am sure that the Senator from Wisconsin has already indicated he knows there are other problems that go with a matter like this. Without hearings, for instance, without a more complete development of the facts, we do not have the machinery in conference to hold hearings.

I should like the Senator from Wisconsin to respond to my suggestion about the difficulties.

Mr. NELSON. Mr. President, I am in full agreement with the statement by the distinguished Senator from Mississippi that the amendment poses some serious difficulties. The information regarding the technique of fire storms that was attempted in Vietnam was widely publicized for the first time in Science Magazine only a few days ago. That, of course, was too late for the chairman of the committee to conduct any hearings, evaluate the information that Science Magazine contained, and to explore the question with the Defense Department.

Also, it is correct that the question of weather modification was raised, so far as I know for the first time, by our distinguished colleague from Rhode Island (Mr. PELL). Senator PELL has commented on it a number of times and he will pursue the matter. Therefore I would not expect that without hearings the chairman of the committee would reach a positive conclusion one way or the other. However, the matter, it seems to me, is of such grave importance that it needs to be brought out here on the floor of the Senate. I appreciate the chairman's bringing this matter to the attention of the conference. Between now and the conference, it is possible that information useful to the conference will be revealed. I understand the position of the chairman, having not had hearings or an opportunity to read the articles and study them. One article is only 7 or 8 days old.

So I appreciate the Senator's bringing this to the attention of Congress. If any information develops on the public side between now and then and if the chairman gains any information on the military side, I am sure that he will evaluate it, make his best judgment on it, and pass it along to us.

Mr. STENNIS. The Senator has made a reasonable statement about this matter. He has done it very well. It is understood between the two of us, indeed, as to the facts and about the situation in conference. I assure him that we will try to get further facts on it and he will give us the benefit of that and we will do the same for him. We will be glad to take this to the conferees and see what we can do with reference to the amendment.

I do want to point out that even though it is related to the military, of course, it is not primarily a matter which would ordinarily be in an authorization bill. I mention that, just to keep the record straight. I want to reserve the right always to hold to that point as to waiving this at this time.

With that understanding, I am glad to recommend the adoption of the amendment. Unless someone wants some time, I am ready to yield back my time.

Mr. NELSON. Mr. President, I yield back the remainder of my time.

Mr. STENNIS. I yield back the remainder of my time.

The PRESIDING OFFICER (Mr. HUGHES). The question is on agreeing to the amendment of the Senator from Wisconsin (Mr. NELSON).

The amendment was agreed to.

Mr. SCHWEIKER. Mr. President, I would like to address myself to several measures in the Defense Department procurement bill dealing with manpower, and with our progress toward a volunteer military posture.

As the chairman has pointed out, the committee recommends a reduction of 56,000 in average active duty strength, but specifies that these reductions are to come out of general support manpower, and are to be appropriately divided among the services. The committee language is clear and emphatic on this point.

A good example of the justification for this decision is found in the Army. In each of our 13 Army Divisions in the field, approximately 6,000 men are assigned in the combat arms, for a total combat strength of some 78,000. Of these 13 divisions, only 5⅓ are currently actively deployed, which means that only about 32,000 are actually required in actively deployed combat arms. Enlistments are currently running at about 36,000 per year, and given about a 33 percent turnover, only 36 percent of combat arms volunteers can be used in actively deployed Army divisions. The remaining 64 percent go into our rather well-padded support forces. I have little doubt that we can continue to reduce manpower even further, taking it out of these

support forces, and not impair our military capabilities in the least. In fact, we must continue to evaluate the question of whether or not, at today's costs, we can afford to keep more than a million support personnel in the field.

This situation confirms the conclusion that we can reach the President's goal of an all-volunteer military posture on or before the end of fiscal year 1973. At present enlistment rates remain high. At the end of June about 278,000 true volunteers had enlisted since the beginning of the fiscal year, an increase of 63,200, or 29 percent above the 215,000 that enlisted in fiscal year 1971.

Each of the services had an increase in true volunteers in fiscal year 1972 from the fiscal year 1971 level. The Navy, which has been having the most difficulty in reaching its enlistment objectives, had the largest percentage increase over the year—50.1 percent.

The Army's reenlistments, however, remain substantially below plan. This appears to be the result largely of an extended proficiency testing program, tighter reenlistment controls, and increased early releases. Some improvement has occurred this Spring, but clearly these are policies which are easy to adjust in order to increase reenlistments to the necessary level.

This administration is firmly committed to ending the draft by July 1, 1973. In 1968 President Nixon, during his campaign, promised to end selective service completely. This administration has reaffirmed that commitment repeatedly, and had made some notable progress toward that goal. In fact, although early predictions were for substantial shortfalls this past fiscal year, the Department of Defense found it necessary to draft only 25,800 men during the 12 months of fiscal 1972, a very encouraging sign of the progress which has already been made.

At this point, I would like to quote for the record an excerpt from the statement of Assistant Secretary Roger T. Kelley, Assistant Secretary of Defense for Manpower and Reserve Affairs, before the Senate Armed Services Committee this past February:

> We are moving toward an All-Volunteer Force. This fact requires restudy of basic personnel policies which govern such things as length of enlistments, nature and length of training, and services to be provided (medical care for dependents, commissaries, etc.). Personnel policies often have substantial impact on the rate of flow of personnel through the Defense System and, consequently, affect the cost of training people, the number of people needed to maintain the required manpower levels in the forces, and the cost of maintaining them.

As Secretary Kelley indicates, the manpower policies which the Department pursues, and the vigor with which it pursues them, will have a decisive effect upon how soon the President's goal of an all-volunteer military posture is to be attained.

While the Defense Department has made good progress this far, it cannot afford to rest on its laurels. If the military wants a high quality volunteer force, these programs must be improved and perfected—and the time to act is now. The draft authority will expire in 11 months. Those with responsibility in the military manpower field should not delay in preparing for that day, because there is no doubt in my mind that this body will not approve another extension of the Selective Service Act.

In the meanwhile, we in the Congress must give our military leaders the tools they need to end the draft. I have no doubts that Secretary Laird and the Department of Defense are making the necessary effort in this crucial area of manpower planning to see that we do not fall short of our goal.

At the conclusion of my remarks, I ask unanimous consent to have printed in the RECORD a brief manpower table showing the progress this administration has achieved in reducing military manpower and moving toward a volunteer military posture, as well as another excerpt from Secretary Kelley's testimony dealing with the all-volunteer military posture.

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

(See exhibit 1.)

Mr. SCHWEIKER. I would like to point out here that Secretary Kelley's statement focuses upon a very important point. He says:

> Recruitment services must reach a wider audience, and provide reliable and persuasive counseling to young people who are making their initial occupational choice . . . Effective performance of the recruiting function of the Services is a keystone of our effort to end the draft.

Mr. President, to help promote the recruiting activities of the Army, the Armed Services Committee unanimously adopted an amendment I introduced to provide legislative authority for the Department of Defense to expend advertising funds for radio and television advertising. Section 604 of H.R. 15495, my broadcasting advertising amendment, reads as follows:

> In order that all appropriate means may be available to the Department of Defense in furthering its efforts to achieve an all volunteer military force at the earliest practicable date, nothing in this or any other Act shall be construed as prohibiting any branch of the Armed Forces of the United States from expending funds for the purpose of advertising in any type of news media, if the purpose of such advertising is to attract eligible persons to enlist or accept commissions in such Armed Forces and the funds used to pay for such advertising were appropriated for recruiting or advertising purposes.

I introduced this amendment because of the specific prohibition of radio and television recruitment advertising by the Army which was contained in the conference report for the Department of Defense appropriations bill for fiscal year 1972, H.R. 11131. Although this prohibitory language was not contained in either the Senate or the House bill, the conference report directed "that no funds be used for paid television and radio advertisements" in the Army's advertising program.

Prohibition of broadcast advertising does not further our good progress toward the President's avowed goal of ending draft, because it ties the hands of the military when it comes to recruiting.

In addition, this prohibition is extremely unfair to the broadcast industry and unnecessarily singles out that segment of the media for discriminatory treatment. The freedom to expend authorized advertising funds—approximately $52 million in the fiscal year 1973 budget—for broadcast advertising is essential to permit the Defense Department to maximize the effectiveness and efficiency of its recruiting dollar.

Radio and television advertising is an effective means of reaching the men in the particular age group we are aiming at. In the spring of 1971, the Stanford Research Institute conducted a survey entitled, "Effectiveness of the Modern Volunteer Army Programs." The major findings of the study as to the impact of the Army's experimental paid radio and television advertising campaign were as follows:

> (1) it was very effective in increasing awareness of Army advertising among young male Americans without prior military service; (2) it was effective in motivating some of these young men to the action represented by making personal inquiry about the Army service for themselves; (3) it was accompanied by increases in levels of Army enlistments beyond those that past enlistment trends would indicate; and (4) it was accompanied by more pronounced increases in levels of Army enlistments in the geographic section of the United States where the advertising was most intensified.

An additional study conducted by the Gallup group found that there is an advantage of approximately 18 to 1 for paid broadcasting over public service broadcasting against men between the ages of 18 and 34. Most public service programming does not reach young men in this particular age group.

Further evidence can be found in a nationwide test conducted during a 13-week period in the spring of 1971. The use of paid radio and television advertising during prime time produced the following results in the 17-to-20 age group:

Awareness of advertising increased by 118 percent.

Overall Army enlistments increased by 13 percent.

True volunteer enlistments increased by 28 percent.

Delayed entry Army enlistments increased by 95 percent.

The 17–18-year-old Army enlistments increased by 35 percent.

Combat arms enlistments increased by 702 percent.

Air Force enlistments increased by 55 percent.

Marine Corps enlistments increased by 71 percent.

Navy enlistments declined by only 14 percent.

It may be argued that paid radio and television advertising is not necessary because of the availability of public service advertising for the all-volunteer army. Althought this would not solve the problem of discrimination against the broadcast media, I do not think we should kid ourselves with the notion that public service advertising is adequate.

In the first place, public service time is subject to increasing competition by agencies at all levels of government, with justifiable causes, and nongovernmental organizations as well. This fact alone

precludes the availability of sufficient broadcast advertising time.

Second, public service time cannot be effectively organized so as to reach the greatest possible target audience, desired portions of that audience, at the best possible times, or even to give a coherent, organized message. We know from studies that certain times of the year, such as spring, just before high school graduation, are the most effective times for recruiting. We must permit the military to spend their recruiting dollar so as to take advantage of this fact.

We know, of course, that certain times of the day are best for reaching the target audience. Public service time is all too often available only when the audience is almost exclusively children, housewives, or some comparable group. The ability to purchase broadcast time would also solve this problem.

We know, furthermore, that dependence on public service does not allow us to effectively focus upon specific regional markets, it does not permit us to effectively make public important changes or innovations, such as pay increases, which would have a great bearing on recruitment, and finally, it does not permit a coordinated advertising campaign of advertising that tells a comprehensive story, since the availability of time is fragmented and unpredictable.

Paid radio and television advertising, provides the necessary flexibility to allow the military to maximize it's message, particularly through the use of advertisements on local radio and television stations, where specific messages can be delivered to specific communities.

I most strongly commend the chairman and members of the Senate Armed Services Committee for adopting this amendment allowing the Defense Department maximum flexibility in choosing the most effective mix of media for advertising for the all-volunteer military. This measure eliminates discrimination against radio and television media, and contributes to an effective manpower management policy by the Defense Department to bring about the successful achievement of the President's goal of an all-volunteer army.

EXHIBIT 1

EXTRACTED FROM ASSISTANT SECRETARY ROGER KELLEY'S TESTIMONY BEFORE ARMED SERVICES COMMITTEE, FEBRUARY 1972, ON DOD MANPOWER REQUIREMENTS FOR FORCE LEVELS

Manpower requirements derive from analysis of the threat and what is needed to meet it. Table 1 shows our estimate of military manpower needed for FY 1973, as well as the level maintained in the previous three years—broken out by major mission areas: Strategic, General Purpose, Other Mission and General Support.

TABLE 1.—ACTIVE MILITARY MANPOWER SUMMARY

[Manpower end strengths in thousands]

	Fiscal year—			
	1970	1971	1972	1973
Strategic forces	143	130	130	127
Offense	90	88	88	89
Defense	38	27	26	24
Command and control	15	14	15	14
General purpose forces	1,251	1,082	949	935
Land forces	746	638	513	516
Tactical air forces	188	167	166	167
Naval forces	232	205	206	195
Mobility forces	85	72	64	57
Other mission	214	204	181	180
Intelligence	93	91	75	68
Communications	59	55	52	50
Research and development	39	37	37	35
Support to other nations	23	21	17	27
General support	1,457	1,298	1,132	1,116
Base and individual support	657	580	513	506
Training	617	550	460	458
Command	154	138	129	121
Logistics	29	30	30	31
Total	3,065	2,713	2,391	2,358

Note: Numbers are additive to major area totals; numbers may not add to DOD totals due to rounding.

* * * * *

All-Volunteer Force Initiatives. As discussed with your Committee earlier, it is necessary to invest money in other areas besides pay to eliminate reliance on the draft. These additional requirements include the following:

1. The ordinary requirements of daily living, such as decent housing and medical care, must be available and within the financial reach of military personnel.

2. Military life must be reasonably satisfying and challenging, and must offer opportunities for individual growth and development through education, training and personal responsibility.

3. Military people and the uniform they wear must be treated with respect.

4. Recruiting services must reach a wider audience and provide reliable and persuasive counseling to young people who are making their initial occupational choices.

The level of effort for programs to support these requirements in the FY 1973 Budget from funds specifically earmarked for Project Volunteer is $272 million; in FY 1972, it was $320 million. These programs include service initiatives, recruiting improvements, and the scholarships and increased subsistence for ROTC and Marine Platoon Leaders Class students which the Congress authorized in FY 1972.

Effective performance of the recruiting function of the Services is a keystone of our effort to end the draft. The Project Volunteer recruiting allocation for FY 1973 is $121.9 million for active forces and $23.5 million for the Reserves and National Guard—78% more than was spent for recruiting in FY 1971. Both the quality and scope of military recruiting have been enhanced considerably, a fact reflected in the very substantial increases in enlistments.

Action by the last Congress in authorizing 2,500 additional ROTC scholarships, doubling subsistence payments for ROTC from $50 to $100 a month, and initiation of like payments for the Marine Corps Platoon Leaders Class (PLC) will assist in meeting officer needs in a no-draft environment. There is already increased interest in ROTC and PLC programs because of these scholarship and subsistence increases. It is believed these improvements will meet the ROTC and PLC portion of our officer supply needs.

One of our most urgent needs is for the additional medical scholarships approved by the House in H.R. 2 and now pending in the Senate. The accession requirement for physicians in FY 1973 is estimated at about 3,300. The present scholarship program is 642. The allocation of Project Volunteer FY 1973 funds for additional medical scholarships is $40 million, enough to fund about 3,300 more scholarships. Even if the legislation is promptly passed, the earliest product of the increased scholarship program would be 125 medical officers entering active duty in FY 1974.

The FY 1973 Project Volunteer program also includes $103.4 million for Service initiatives to improve the quality of service life and to improve living conditions. This amount includes $10.6 million for barracks improvement. In addition, the Army has budgeted significant amounts for related programs. The type of actions included in this program are: increased educational opportunities; provision of constructive facilities and activities for off-duty hours; improved medical services for dependents; eliminating menial work details for lower grade enlisted personnel; and more convenient commissary hours.

The actions funded for FY 1973 are the result of carefully considering the comments and recommendations of enlisted men, NCO's, junior officers, and commanders in evaluating the FY 1972 program of Service initiatives.

Implementation of the FY 1972 Volunteer Force program is generally on schedule, except for barracks improvement programs which have lagged because of delays in the availability of funds. Implementation of the FY 1972 program is illustrated below.

Number of New Recruiters: 70% in place.

Number of New Recruiting Stations: 85% opened.

Barracks Improvement: 78% complete (FY 1971 funds), 10% obligated (FY 1972 funds).

ROTC Scholarships: 90% committed.

Service Initiatives: 50% obligated (FY 1972 funds).

MANPOWER ISSUES

Thus far we have reviewed the size and basic composition of our military forces, the reasons supporting their need, and their cost. I would like now to briefly discuss some of the key considerations of Defense manpower—*the All-Volunteer Force*, the vital role of Guard and Reserve components in our total force, military retirement, the military grade mixture, the importance of having a stable and fully-manned force, and certain quality considerations in the personnel make-up of our forces. Policy and basic practices in these areas will determine in large part how effectively our human resources will be utilized in future years, and at what cost.

All-Volunteer Force. A year ago, I appeared before your Committee for a discussion of the actions needed to end reliance on the draft and move toward an All-Volunteer Force. That was just after 1970 in which we drafted 163,000 men, the lowest level since before Vietnam. Last year, we drafted 98,000 of whom 84,000 were drafted in the first six months. During the first quarter of 1971, 64,000 were drafted and there will be no draft calls during the first quarter of this year.

I told you then why we favored an All-Volunteer Force over one that relies upon forced entry. Our experience of the past years bears out the accuracy of these reasons.

In the adult work world, the Armed Forces (like other organizations) function best in a free environment where they compete with others for people.

An organization composed of volunteers, having survived the test of free competition, tends to be more efficient than one that relies on forced entry.

The alleged pitfalls of the voluntary military organization—that it will be dominated by mercenaries, who will take over our nation, or be all black—are gratuitous and false claims, totally unsupported by the make-up of that portion of the military organization that is volunteer.

Once the transition to an All-Volunteer Force has been accomplished, the military organization will be totally more effective

and will consist of many fewer people than its conscripted counterpart.

Besides ever declining draft calls, further signs of progress toward an All-Volunteer Force in the past year were:

7 of 10 enlistees are true volunteers, compared with a ratio of 6 of 10 a year ago, and 5 of 10 two years ago.

In the last six months of CY 1971, 25,000 more true volunteers enlisted than in the same period of 1970.

The mental skills of enlistees (sometimes called the quality mix), measured by the results of Armed Forces Qualification tests, were better in 1971 than in 1970. Also 12% more high school graduates enlisted than in 1970.

Combat arms enlistments in the Army increased from a monthly average of 250 in the last half of 1970 to 3,000 in the last half of 1971—an increase of 1,200%.

In January 1972, almost 10,000 soldiers separating from active duty enlisted in Army Guard and Reserve units. This enlistment program for prior service personnel was tried in 1971 at two Army posts and expanded to twenty posts this year.

These progress signs are most encouraging. They reflect results achieved before the military pay raises were effective, and they were accomplishments of a year whose second half saw very low draft pressure. But there are remaining problems, and as I told this Committee a year ago, it was then (and continues to be now) extremely unlikely that we could totally replace the accession power of the draft in FY 1972. Let me briefly mention two problem areas.

As expected the impact of low draft calls in 1971 was greatest on the Guard and Reserve since more than 75% of their new enlistees have been draft motivated. At the end of December, 1971, the Guard and Reserve were 45,000 below their Congressionally mandated strengths, despite greater emphasis on their recruiting programs. If the shortages continue, we will seek Congressional support for bonuses and other actions to stimulate enlistment and retention in the Guard and Reserve.

The problem of meeting our requirements for physicians and other health professionals, in a no-draft environment is complicated by the national shortage of professionals in these categories. Dr. Richard Wilbur, the Assistant Secretary of Defense (Health and Environment), has taken the lead in developing solutions which will address this problem while increasing the efficiency of our military health care system. In coordination with the Surgeons General, Dr. Wilbur has in the final stages of review a series of programs to expand continuing medical education; improve promotion opportunities for outstanding senior clinicians; increase stability of assignments; and make pay of military health professionals competitive with their civilian counterparts.

Programs to increase the efficiency of the military health care system include requiring that all health professionals and facilities within a Military Department, in a particular geographical area, be under the operational control of a central health authority; establishing better space standards for existing health facilities so that doctors can be used more efficiently; and providing new equipment for existing facilities.

Earlier, reference was made to increased scholarships for health professionals, a proposed bill which has passed the House and is pending in the Senate. Its passage would enable us to take an important step toward solving the doctor supply problem.

Problems remain in achieving the All-Volunteer Force, and their solutions may require additional programs and transitional funds. But I am encouraged by the progress to date and prospects for the future. Before the end of CY 1972, we will be able to determine the means necessary to ending reliance on the draft by July, 1973, without impairing our national security system.

Mr. SCHWEIKER. Mr. President, I ask unanimous consent to have printed in the RECORD a statement prepared by the Senator from Vermont (Mr. STAFFORD).

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

STATEMENT BY SENATOR STAFFORD

My colleague from Pennsylvania has just discussed an important innovation in this year's military procurement authorization—the provision in law for paid radio and television advertising. I want to add my support to the Senator's efforts and commend it to the attention of all other Senators.

Mr. President, as I have stated before on the floor of the Senate, we are in the last months of living with the draft. By June of next year, the draft will expire. We must, therefore, plan for the future and be prepared for the day when the military services must attract and retain the numbers and quality of men it needs to maintain national security. I am convinced that the services can if they so chose.

One of the tools which the Army tested last spring is the use of paid radio and television advertising. Continued use of paid radio and television advertising is in the best interests of the services and should be encouraged. Passage of the procurement bill with Section 604 will give the services one more tool for reaching the potential enlistee with recruiting information.

I want to congratulate the Chairman of the Armed Services Committee and the rest of the committee for understanding with such clarity the importance of this measure. This unanimous vote of confidence is significant. I would be surprised if any member of the Senate, for that matter, were to oppose such non-controversial, but significant assistance to the armed services.

I briefly want to note several reasons why the military should be given the option of using paid radio and television as an advertising medium.

1) First of all: cost effectiveness. It is simply more cost-effective to use a fully balanced program of advertising including radio and television, than to restrict the message of the services to print. Awareness figures during and after the test last spring demonstrated a substantially higher degree of awareness than ever before obtained by service advertising.

2) Second: communication. It is most unfortunate for the services not to be able to communicate to potential enlistees and the general public the vast changes in service life that have been undertaken in the last two or three years. There is virtually a quiet revolution going on within the military establishment. I have addressed these points several times before, so I only refer to them now. They include: opening channels of communication; contract hire of civilians to return servicemen to training and mission responsibilities rather than KP and other non-productive make-work; improved living quarters, affording more privacy than ever before; and dress, waiting time limitations, more standard working hours, reducing weekend and evening duty, and generally a greater recognition of the individuality and integrity of the man—all of these developments should be communicated to the public.

Furthermore, specific incentives must be made known to the prospective enlistees and those who influence his decisions.

For the first time in at least 20 years, compensation for entering servicemen is comparable to their counterparts who stay at home. The financial penalty to enlisting has been removed by Act of Congress last fall. There should not be a single potential enlistee in this nation who is not aware of this significant achievement.

In mid-March, the Gilbert Youth survey included several questions in reference to military pay. The object was to determine what proportion of young men were aware of the vast pay increase passed by Congress last year. The results after intensive advertising in the print media are revealing: about three-fourths knew about the pay raise for the Active Forces, but less than one-third were aware that the reserves got an increase. Less than one-half seemed to know that all of the Services got the same increase and at least half of the young people underestimated the size of the raise, most by a substantial margin. (We thus not only have to overcome the traditional underestimation of the value of military compensation because of its complex categorical system of pay, but a public uninformed as well.)

In addition, advertising is needed to communicate the opportunities for education, educational benefits and specific training in valuable skills. The young man seeking to develop the tools to establish a sound career ought to know about the nation's largest educational establishment—the uniformed services.

Finally, communication is essential to inform the potential enlistee of the vast array of new enlistment options. The Army began this approach more than a year ago and has found it a most valuable innovation. The Navy began to use these programs just several months ago. But it is fully clear that without the ability to make known these options to the public, they will have limited effect.

3) Third: public understanding. It is important for the nation as a whole to learn more about the Services—to learn of their developments and new opportunities, to learn of their actions to modernize and professionalize, to learn of the opportunities for young men which the services hold out. While the purpose of advertising is directed towards the potential enlistee, significant effect is a greater public understanding of the role of the military—their needs and their mission. Secretary Laird just last week said the following:

"I believe that we will be able to fulfill the manpower requirements of the United States Army on a voluntary basis, provided three things happen. First, that adequate pay and allowances are made available; second, housing and educational opportunities are available to these young men and women; and, third, and most important, we must have an awareness and a respect developed in this country for the importance of the men and women that wear the uniform of the United States military and the work that they are doing in order to protect the national security of our country. They must be accepted, and that role, that career of military service must once again be one that can be respected and that's what we're trying to do."

I cannot agree with the Secretary more. It is important that the public's view of the military be a clear one. There is certainly no absence of critical analysis of the military by both the press and radio and television news media. There is, then, certainly no harm done if the military is allowed to communicate some of its progress and opportunities through the channels it deems most effective. As long as the advertising is forthright and not misleading, its message can be an important factor in telling the services' own stories.

4) Fourth: advertising is needed now. While the end of the draft is expected next June, we have just entered the difficult transition period of FY 73 and FY 74. These two years, requirements for the services are high and advertising can be most helpful. After that period, that is once we are in the steady-state all-volunteer force, requirements will be lower and the expected

use of recruiting tools will be able to taper off a bit. But for the rest of this year and the next, it is most important that Congress does all it can to remove the obstacles to recruiting the unusually high numbers of men needed.

5) Fifth: paid radio and television is an effective tool. The Office of the Secretary of Defense and the Department of the Army undertook separate analyses of last year's advertising experiment. The readings were somewhat different, but after close examination of both of those studies, I make the following conclusion: there are several important positive features of paid radio and television advertising and no logical, understandable negative ones.

I note for the Senate's consideration, the briefest reference to some of the data results:

The paid television program delivered some 308,500,000 impressions per month compared to some 4,000,000 impressions per month during the highest period of Public Service Announcements (free service ads).

The paid radio program delivered some 96,978,000 impressions per month as against a high of 2,231,000 impressions per month under the Public Service Announcement program.

Magazine coupons returns—a viable index of interest stimulated by advertising—increased markedly during the test period and slowly tapered off after the period. For instance, for the entire period from July, 1970, through February, 1971, there were only 24,600 coupon returns. In March, the first month of paid radio and television experiment, the coupon returns were 18,000, an increase of 600 percent over the monthly average of the previous 8 months. That figure increased to 22,000 in April and 26,000 in May by the end of the test advertising.

Walk-in traffic was measured to increase some 30–40 percent during the period.

And while enlistments into the immediate and delayed entry pools and the combat arms increased substantially, we can attribute, I am sure, only a portion to the stimulus of the advertising campaign. The program hardly got momentum when it had to be withdrawn. Furthermore, no one in advertising will deny the cummulative effect of advertising over a longer period—all of which was lost, of course, by its precipitous halt.

6) Sixth and last: Paid radio and television is needed. Without such a process, there just is not going to be sufficient radio and television public service announcements to do the job effectively. The Army has made substantial effort in this direction. For instance, the Army advertising agency briefed top networks management, but received a polite "no" to increasing public service advertising. Two networks indicated that they would look more favorably at donating time if the Advertising Council would include military recruiting in their "endorsed" ads. The Advertising Council, however, flatly rejected any proposals to do so when approached by the Army. The good-will of the radio and television industry does not extend to the degree of advertising needed by the services.

One argument has been offered in opposition to a paid radio and television campaign. That is that the networks do not deserve the profitable business from the government because of their attitudes towards the military in their specials and news coverage. I must admit that argument makes very little sense to me. But there is a more important response—it is an irrevelant argument because the services are quite capable of placing their advertising directly without benefit accruing to the networks. It may be slightly more expensive to do this, but it certainly does negate any kind of reasoning based on network attitudes.

We do not ask private businessmen to rent us recruiting headquarters, nor do we ask private car dealers to provide automobiles to our recruiters and attack their patriotism for their failure to do so. It is preposterous to think that a legitimate service offered by a legitimate business must come free to the Federal government simply because it is the military asking. We would have only salaries to pay for a defense budget if that argument were carried to its logical extension. There is no sensible reason to reject payment for an important and valuable service to be purchased from an important medium of communication. The Senate Armed Services Committee obviously felt the same in their decision to include Section 604.

I urge other Senators to pay particular attention to this issue and I urge those who are chosen to represent the Senate in Conference with the House to understand that there is a strong commitment to this issue by those seeking to help the military in their difficult task. This provision should survive the Conference and become law.

Mr. SCHWEIKER. Mr. President, I see the Senator from California (Mr. CRANSTON) in the Chamber. I wish to yield to him at this time.

Mr. CRANSTON. Mr. President, I rise to commend and congratulate the Senator from Pennsylvania (Mr. SCHWEIKER) for the leadership he has provided in this matter. I want to pay tribute, too, to the able chairman of the committee (Mr. STENNIS), and the full Committee on Armed Services, for their wisdom in clearing the way for paid TV and radio recruiting messages by the Armed Forces. The committee's action makes it clear that it wants to bring an end to compulsory military service, and that it will put no roadblocks in front of the effort to achieve this goal.

PROGRESS TOWARD AN ALL-VOLUNTEER FORCE

To date, the military services have taken important steps towards ending the draft. Even though fiscal year 1972 was a transitional year for military recruiting programs, the Department of Defense fully met 90 percent of its recruiting objectives. Moreover—contrary to the fears raised by proponents of retaining the draft—the pay increases and reduced draft pressure did not have an adverse effect on the quality of personnel entering the Army. As Gen. George I. Forsythe stated in the comprehensive hearings so ably chaired by the Senator from Texas (Mr. BENTSEN):

The quality of new recruits is improving. In late September, the Army focused on bringing in higher quality recruits—high school graduates, and personnel in the upper mental categories. During October, enlistments dropped several thousand, but quality was up by 25 percent. In November, quality continued to rise and numbers began to climb. By December, quality was up almost 80 percent and total enlistments were 20 percent higher than the previous December. In August and September, slightly over 50 percent of Army volunteers were high school graduates. With emphasis placed on quality starting in September, the percentage of high school graduates rose to 80 percent in October, 84 percent in November, and 88 percent in December.

This measure of success is the direct result of a positive effort to reduce reliance on the draft. In the past, the recruiting program has been a low-priority item. As Assistant Secretary of Defense Roger T. Kelley told a House Armed Services Subcommittee:

One of my basic objections to the selective service draft is that it encourages poor manpower and personnel practices. It has been, in effect, an open account on which the Army has been able to draw people whenever it needed them, regardless of the number involved. In this kind of environment, recruiting inevitably suffers because its burden can be relieved by the draft. There were indications that some recruiting offices were running a sort of "order taking" business—signing up those customers who applied, but not working very hard to find qualified candidates and excite their interest in military service.

To correct this problem, the Army has doubled the size of its recruiting force and greatly expanded the number of field offices. More importantly, they have upgraded the status of recruiters by providing intensified training, special duty assignment pay, and allowances for out-of-pocket expenses. The Congress has removed a major deterrent to enlistment by establishing a more competitive wage scale for recruits. And the Army has built upon this foundation through an aggressive recruiting program emphasizing opportunities for training, and the popular "unit-of-choice" and "area-of-choice" options.

PROBLEMS TO BE OVERCOME

Of course, much remains to be done to improve military manpower recruitment;

The Army has taken only the first steps toward removing unnecessary irritants, improving living conditions, and enhancing the dignity of the individual GI—and many of these measures have yet to be implemented or accepted on an Army-wide basis.

The draft is still used as a crutch to deny moving allotments, family separation allowances, and housing opportunities to over 200,000 first-term enlisted men.

Nearly 400,000 bachelor servicemen do not have adequate quarters.

The Navy, according to Secretary Warner, rested on its laurels and began its recruiting drive 9 months later than it should have.

The paid drill reserves have fallen below their authorized strengths.

And the Army, through its own admitted errors, has mismanaged the reduction-in-force to a point where the lower than authorized end strength for fiscal year 1972 may result in additional accession requirements for fiscal year 1973.

A PROGRAM FOR ENDING THE DRAFT

Eleven months remain before the draft finally expires. Some of the problems can be overcome only through reform within the military. Others will require the assistance of the Congress. Earlier this year, I joined the Senator from Colorado (Mr. ALLOTT), along with the Senator from Vermont (Mr. STAFFORD), and the Senator from Texas (Mr. TOWER), in introducing a comprehensive package of incentives to meet the quantitative and qualitative needs of the Active and the Reserve Forces.

Incentives, however, cannot work in a vacuum. The impact of enlistment opportunities now being offered—and of those yet to come—will be severely hampered unless we remove the restrictions now placed on the service's ability

to let the youth of America know what it has to offer. As the Army's Deputy Chief of Staff for Personnel recently told a House Armed Services Subcommittee, paid advertising plays a key role:

Once we went on the air with a combined paid TV, radio, and our normal magazine advertising and newspapers, along with the options that we had to sell—the new options for Germany, Vietnam and Korea, the unit of choice in the United States, training, and so forth, the 32 enlistment options which we offer—the enlistments started to go up and have been consistently going up until last month. They were at 18,000 plus in a non-draft environment.

In addition, the combat arms enlistment went from roughly 400 a month up to about 4,000 a month.

If you put all of that together, sir, and say, "Is that due to paid TV and radio?" it's very difficult to say how much is due to that. But I think that the fact that we had something to sell, and the fact that we were displaying a better public image of the Army, combined with the enlistment options, combined with the expansion of the recruiting command, plus all the other efforts that have gone into this thing, that the combination has certainly, in my opinion, proven to be a winner.

There are those who say that the military should be content to rely on the public service time now donated free of charge. This question was addressed last year by an Army official in hearings before the House Interstate and Foreign Commerce Committee:

Reducing reliance on the draft will depend in large part on our ability to inform the youth of this nation of the advantages of a military career. The judicious use of advertising is a necessary part of a successful advertising campaign.

For many years, the Army purchased space for recruiting messages in magazines and newspapers. We have also made commercial messages available to local radio and television stations and requested broadcasters to air them without charge as a public service. But most such messages, if they are broadcast at all, do not appear during the hours when the audience we seek to reach is watching. A study showed that only 4% of the Army messages on public service television time were aired during prime viewing hours. Most are fill-ins for commercial time for which there were small audiences, low prices, and few buyers—on television early in the morning, late at night, or during daytime hours. Exposure during such hours cannot effectively reach the audience of young men who might enlist for military service.

Moreover, broadcasters are flooded by legitimate requests for free time. The Army must compete for the limited free time available with many public service ads from a variety of public and private groups. The amount of time any one applicant can expect to receive is small.

Public service announcements are hardly ever shown on network television. Only local stations run public service announcements, each in its own discretion.

Public service time is at best hit-or-miss. An effective advertising campaign must be coordinated and controlled. Planners must know when, where, and with what frequency messages will appear. They must be able to select the times and programs favored by the audience we are trying to reach—in this case, young men 17 to 21. The Army is grateful for the time public spirited broadcasters have contributed in the past. We have no reason to doubt they will continue to do so in the future. But in spite of excellent cooperation by the vast majority of radio and television stations in the country, it is simply beyond their ability to provide on the traditional public service basis, the time the Army needs to test these media fairly.

This year, faced with legislation prohibiting the use of paid TV and radio messages, the Secretary of the Army contacted hundreds of stations in an effort to obtain free prime time—but with minimal results. This, of course, is no fault of the stations, for they need the prime time revenues to meet operating costs. It is clear that the only solution lies in the direction taken by the Committee on Armed Services, in allowing for the use of paid recruiting messages.

Of course, to be acceptable to the taxpayer—and to potential recruits—these messages must be honest and straightforward. We in the Congress have provided a meaningful pay scale. The Army is developing a good set of enlistment options. They should be given the opportunity to make these programs generally known—no more, no less.

Mr. President, we are on the verge of an historic achievement—the termination of mass conscription in America. With a meaningful reduction-in-force—as the Committee on Armed Services has so wisely initiated—we can render the draft unnecessary. But even if we retain present force levels, we can end the draft merely by increasing the Army's recruiting capability by less than one additional enlistment per recruiter every other month. The advertising program will play an important role in achieving that result, and I again congratulate the chairman, the committee, and the Senator from Pennsylvania (Mr. SCHWEIKER) for initiating this legislation.

Mr. President, I am delighted to join in supporting this effort.

Mr. SCHWEIKER. I thank the distinguished Senator.

I yield now to the distinguished chairman of our committee.

Mr. STENNIS. Mr. President, I wish to commend the distinguished Senator from Pennsylvania for his interest in this entire subject matter, and for his special work and untiring efforts in connection with this particular amendment. The Senator had this amendment before the committee and he presented it in a splendid way. We adopted the amendment in the bill and I notice it has not been criticized in any way. I feel certain it will be a part of the bill that will pass here next week.

The Senator has made a worthwhile contribution and I hope we can get favorable consideration of this amendment in conference. We certainly will try to do our very best and I hope we can bring back the amendment as part of the bill.

Again, the Senator from Pennsylvania is entitled to credit for a good job.

Mr. President, I am going to yield the floor now. The Senator from Nevada has a matter he wishes to discuss, part of it with the Senator from Wisconsin. I am going to ask the Senator from Nevada to be in charge of the bill during my absence and I will be available when he is ready to yield back the floor.

The PRESIDING OFFICER. The Senator from Nevada is recognized.

Mr. CANNON. Mr. President, on July 25, 1972, the distinguished Senator from Hawaii (Mr. INOUYE) made a speech during the debate on this bill in which he discussed certain problems that he had heard existed in the F–15 and F–14 development programs. The Senator concluded by recommending that no production funding be allowed in fiscal year 1973 for either of these programs.

Today I would like to provide some information which I hope will set the record straight on the technical development status of both of these airplanes and explain again why the Armed Services Committee recommended authorizing production funds for these programs.

F–15 ALLEGED AIRFRAME PROBLEMS

First, let me start the discussion on the F–15 program by pointing out that the airplane made its first flight yesterday, and according to all reports, performed beautifully and met all expectations. My congratulations go to the Air Force and to the contractors who have worked so hard on this program.

Taking first the allegations of technical problems with the F–15, and I might add that a casual reading of the Senator's speech might imply that severe design deficiencies exist, let us examine them one at a time.

It was stated that NASA wind tunnel testing showed the F–15 is spin prone. The facts are that the testing has shown that the F–15 is not spin prone but that it resists getting into spins, and what is more it is easily recoverable if it should start to spin. This matter was covered in testimony before the Tactical Air Power Subcommittee in March of 1971, and the testimony was published last year. To bring the Senate up to date on this testing, NASA currently is drop testing spin models of the F–15 from a helicopter. This type of testing is done in all new airplane developments before going into actual flight tests with the real airplane. Out of more than 10 drops performed so far, it has been possible to force the F–15 into spins about 80 percent of the time by deliberately holding the controls in a position to aid spin entry. These tests have shown that the F–15 is spin resistant, but once a spin is forced, the airplane recovers easily. Therefore, these tests are confirming earlier wind tunnel predictions that the F–15 has good spin characteristics. The Air Force expects that the spin test airplane, No. 8 of the test fleet, will further verify these results.

It was alleged that the speed brake, when opened, would cause airflow disturbances over the two vertical fins on the airplane. This is a true fact, but what is important is whether the airflow disturbances will make the vertical tails ineffective and cause the airplane to become unstable. The facts are that at the worst conditions for opening the speed brake the airplane still has a positive margin of stability, it meets stability specifications, and is completely satisfactory.

It was stated that the airplane's landing gear was too narrow, causing the airplane to have crosswind landing problems, and that the test pilots would require special training in airplanes with similar gear configurations. The facts are that the landing gear on the F–15 is comparable to the current F–104, A–7D,

and F–111, all of which are operating satisfactorily in Air Force squadrons, and it is wider than the old F–86. The F–15 was designed to a high 30-knot crosswind requirement, and present analyses indicate it has at least that 30-knot capability. Also, it is not correct that the F–15 test pilots will receive special crosswind indoctrination although the pilot in preparation for the first flight did so to be conservative.

The speech stated that there have been considerable difficulties with the F–15 with stability and flutter problems and that these would require considerable time to resolve. The facts are as follows. As with all airplane development programs, insuring an adequate safety margin from flutter is a concern in the design stage. Flutter is an aerodynamic and structural instability that can tear off a vertical or horizontal tail, and analysis of the safety margin depends a great deal on the validity of wind tunnel tests made with very small models. One series of flutter model tests that was run in September 1971, by NASA showed less than the required 15-percent margin at the worst flight conditions. These tests however, did not agree with other test results that had been obtained. Nevertheless, the contractor took a conservative approach and designed fixes to the horizontal tail that would provide the required safety if the anomalous data was in fact correct. Since that time, new tests have been run which verify that the original design was adequate. This will have to be confirmed during the airplane flight test program, of course, but present indications are that the F–15 is all right from a flutter standpoint. I also would add that the fixes that were designed for that worst case are straightforward state-of-the-art fixes and would involve some added strengthening and stiffening of the horizontal tail.

In summary, I believe the facts will refute the allegations of serious concern about the F–15's airframe design. On the contrary, I think that the development has proceeded in quite an orderly manner to date, with the usual problems that have arisen being handled in a very reasonable and straightforward manner by the contractor and the Air Force. The important point is that they have been recognized, attacked, and solved early in the design stage. This will save the costly fixes that occur when a production line is running concurrently with the R. & D. phase. The F–15 is following the fly-before-buy philosophy and I believe is validating the worth of that concept.

ENGINE DEVELOPMENT STATUS

Let us look now at the F–15 engine's development program. The Tactical Air Power Subcommittee reviewed this very thoroughly this year because the Air Force was requesting authorization for the first production airplanes and the advanced technology engine—ATE—was known to be experiencing some development problems. Our hearings on the F–15 are printed in part 6 of this year's fiscal 1973 authorization hearings, and I think that the complete development history of the engine was brought out in that testimony. It is available for anyone to read who cares to do so.

That testimony shows that the first design of the ATE engine proved to be deficient in performance, and an alternate design had to be adopted. The first design is known as the series I engine, while the alternate is called series II. As the Senator from Hawaii pointed out in his speech, the series I will be used for flight testing the first F–15's that fly. In fact, the plane that flew yesterday has series I engines in it. The series II design will be used in the later test airplanes, and in the production airplanes. It was not ready for flight status when the F–15 airframe was ready, so for that reason, and that reason alone, the Air Force bought a number of the series I engines to begin the flight test program. These can be used to start checking the airframe, but, of course, the engine's operation and the engine-airframe compatibility will not be verified until the series II version is flying.

The first series II engine now is scheduled to fly this November in an F–15 test airplane. The series II engine must pass a 150-hour endurance test called military qualification test—MQT—before it is qualified for production. This was originally scheduled for February 1973, with the series I engine, and the Air Force still hopes to meet that date with the alternate hardware. As the committee pointed out in its report on the bill, it is entirely possible that the engine qualification could slip a few months. This should not be surprising if it does occur. There is, however, a gap of 21 months between engine qualification and delivery of the first production airplane, and this gap allows time for the engine to "mature" during flight testing before the production airplanes enter Air Force squadrons.

There have been engine component failures in the testing program as was stated in the speech, but these are to be expected. The process of fixing these failures as testing goes along is part of the normal process of building durability into an engine. As I stated before, the engine must be able to run 150 hours without teardown or failure before it is considered qualified for production.

F–15 DEVELOPED UNDER MILESTONE CONCEPT

A major basis for the Senator from Hawaii's claim that the F–15 should not be authorized for production this year was the correctly stated fact that a new airframe, a new engine, and a new avionics system all were being developed at the same time. The attempt to do so was characterized as completely ridiculous.

I believe that my comments on the airframe development and the engine development would contradict that statement. But let me point out another aspect of the F–15 program's development that is designed to reduce the risk of concurrent development efforts on these subsystems. It is the use of the developmental milestone concept, a part of the fly-before-buy philosophy. There are two very important milestones, or benchmarks, that must be passed during fiscal year 1973 before the F–15 is released to production. The first of these is demonstration of the complete avionics system, operating as a single integrated unit, in what is called a bench test. This demonstration must be made successfully before release of an initial $15 million in long-lead item funding scheduled for October 1972. The importance of this milestone is that it requires that the complete avionics system, made up of several large subsystems, must have reached a development status where it can be proven that these subsystems will work and operate together. This is a major hurdle in the development of any new avionics system, and if the avionics would not work, the F–15 would not even start into long-lead production. Requiring passage of this milestone significantly reduces the development risk that could have existed with the new avionics system.

The other major milestone in the F–15 schedule that must be completed before release of full production funding is that the engine must pass its MQT qualification test. As I said before, this is scheduled for February 1973. Passage of this test will mean that the engine is fully qualified for production. Therefore, passage of this milestone will reduce significantly the development risk of the new engine.

F–15 RECOMMENDATION

The committee carefully considered all of these points, as presented in testimony this year when weighing the request for authorization of F–15 procurement funding in fiscal year 1973. It was our opinion that adequate safeguards existed in the F–15 milestones and that development progress to date justified our recommended authorization of initial F–15 production. I believe that to deny this authorization would unnecessarily delay the F–15 program and invariably would cause a tremendous cost increase, and I recommend that the committee's position be supported by the Senate.

F–14 PROGRAM RECOMMENDATION

The Senator's speech also criticized the F–14 program for having concurrency of R. & D. and production and recommended in essence a zero-buy of F–14's in fiscal year 1973. My speech of last Monday, July 24, when I gave the Tactical Air Power Subcommittee's report, did cover fully the F–14 program and the reasons why the committee recommended authorization of the 48 airplanes requested. It also explained the effect of the restrictive language that we added to the bill. I will synopsize the major points again very briefly, but first let me say that the concurrency in the program has been recognized, reported, and criticized by the committee for a long time.

Our major points in recommending 48 airplanes this year are as follows. First, the development and flight test program is making satisfactory progress. Second, authorizing less than 48 airplanes would break the present airframe production contract. Third, breaking the contract would cause a significant price increase for the F–14.

In the committee report on this bill, the financial problems of the Grumman Co. are discussed and so is the reasoning behind the restrictive language proposed by the committee. Therefore, let me say, in closing that it is our belief that the Congress should stay with the F–14 program as proposed by the Navy and as

restricted by the provisos in the bill. Denial of authorization by the Congress, by breaking the F–14 contract, could only guarantee that the taxpayer would end up paying more money for the F–14. Senator INOUYE'S statement that he is not an aeronautical engineer is one with which I agree. I do not know where he got his information; but if he had knowledge of a technical nature furnished by experts, I am disappointed he did not make it available to the Tactical Air Subcommittee during its protracted hearings.

I recommend that the committee's position be supported.

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

Mr. CANNON I am delighted to yield to the Senator from Wisconsin.

Mr. PROXMIRE. Mr. President, I would like to ask the distinguished Senator from Nevada some questions on the F–14. I have just a few brief preliminary remarks first.

Mr. President, during the course of its deliberations on this authorization bill, the Senate Armed Services Committee held long, thorough hearings on the Navy's F–14 program. These hearings were chaired by the distinguished chairman of the Committee's Tactical Air Power Subcommittee, Mr. CANNON. At the conclusion of the hearings, my colleague from Nevada recommended and the committee unanimously approved the inclusion in this bill of special restrictive language regarding the F–14 program.

I have had a strong personal interest in the course of that program, and I commend Senator CANNON most highly both for the exhaustive hearings he conducted and the restrictive amendment which he steered through the full committee. That amendment, as so ably interpreted in the committee report, is designed to insure that there will be no change in the terms of the present Navy-Grumman contract for production of the F–14 without the express prior approval of Congress.

In order to be sure that there is no misunderstanding about the effect of that amendment, I would like to ask my colleague a few questions at this time:

First. The amendment restricts Navy use only of the procurement funds authorized in this bill for the F–14. These funds total to $570.1 million, of which $407.8 million is budgeted for procurement of 48 Lot V F–14A aircraft, $86.6 million for initial spares, and $75.7 million for advance procurement items for Lot VI. Would my colleague explain briefly the committee's intention in restricting all these funds and not simply the $407.8 million budgeted for 48 Lot V aircraft? Did the committee intend that all $570.1 million could, in fact, be allocated to the procurement of the 48 Lot V aircraft or, instead, that the $86.6 million for spares and $75.7 million for Lot VI advance procurement were available only for budgeted use, but could not be spent even for that purpose unless the conditions laid out for Lot V production were first met by the Navy with the $407.8 million budgeted for the 48 Lot V aircraft?

Mr. CANNON. The committee placed the restrictive language on the entire budget amount because—

First. The initial spares go with the lot V procurement and if the procurement of the aircraft is restricted to the funds authorized, then the spares that go with this aircraft should also be restricted.

Second. If lot V is to be restricted in funds and the conditions stipulated in our bill and report are upheld, then it would not make much sense to allow advanced procurement funding for lot V.

Third. The intent of the committee is clear in that the restrictions in the use of these fundings is intended to limit the F–14 cost to the present contract ceilings. It is not intended that these funds can be used for any other purposes by the Navy.

Mr. PROXMIRE. I appreciate that answer very much.

Second. The purpose of the amendment, as I understand it, is to preserve the integrity of the existing Navy-Grumman F–14 contract. This means, does it not, that, if Grumman refuses to perform lot V when the Navy exercises its lot V option or in any other way fails to honor its obligations under the contract, that the Navy will be unable to obligate or expend any additional funds restricted by the amendment without the express prior approval of Congress?

Mr. CANNON. Mr. President, the Senator's assumption is quite correct. I believe that would be the procedure if this committee language in the bill were to be upheld in the final passage of the act. It seems clear in the bill and the committee report that this funding cannot be used for any other purpose. This, I believe, would then require new legislation for funding to continue the program if any change were made.

Mr. PROXMIRE. I thank the Senator. The third question is this, and it has several subparts to it:

Third. The amendment permits adjustments in the lot V Grumman ceiling price under the existing contract so long as the changes are "in accordance with the terms of such contract including the clause providing for normal technical changes." This prompts the following points:

Would my colleague spell out for me what specific "regular routine types of changes," to use the words of the committee report, are covered by this provision except for technical changes themselves?

Mr. CANNON. The committee was very careful not to insert any language in the bill or report that would in any way give cause for either the Government or the contractor to break the contract. Therefore, as a coverage item for any other contractual commitment that may be required, the committee inserted this additional coverage for routine items. The intent, however, is very clear that contractual changes of such a nature that would "break the contract" and allow Grumman to recover their reported losses were not to be permitted.

Mr. PROXMIRE. What would be "routine changes," as compared to technical?

Mr. CANNON. The termination of use of Government facilities, special tooling, the "Government shops" clause, the Federal and State taxes, and things of that sort. Those would be routine types of changes.

Mr. PROXMIRE. Second, also, with respect to technical changes themselves: Testimony recently released by the House Appropriations Committee indicates that 43 "major flaws" and 75 "minor problems" in F–14 test models were uncovered during NPE I tests last fall and that the Navy is now working on possible fixes. What principle is used to determine whether the fixes required are the responsibility of the Navy, on the one hand, or a contractor on the other? More specifically, is a contractor obligated to make technical changes at its own cost to meet design specifications it originally said it could meet, or, if there are exceptions to this basic rule, just what are they?

Mr. CANNON. With regard to the technical issues found in the Navy preliminary evaluation, I might say that the very intention of this evaluation is to get at the potential technical problems and correct them. I don't believe there has been an aircraft or for that matter any technical item built from paper drawings that did not require some improvements or corrections when it was finally put together. This is also apparent that the correction of these items to the extent that they do not meet contracted requirements, and are not added Navy improvements, are the responsibility of the contractor.

In other words, the contractor has the responsibility to meet the technical requirements; unless the Navy directs changes for its own benefit, they are the contractor's responsibility.

Mr. PROXMIRE. Third, does the committee intend to monitor Navy-approved technical changes as they occur to prevent abuse of its amendment, and if so, what informal reporting procedures regarding changes has it worked out with the Navy?

Mr. CANNON. The committee is constantly monitoring the progress of this aircraft not only because of the problems it has been having financially but also because of its importance to our country. It is the committee's feeling that we do not need to work out any further formal procedures for this matter, because we are, as I say, constantly monitoring the progress as they go along.

Mr. PROXMIRE. I asked what informal procedure. In other words, do you expect the monitoring to be by some kind of informal examination by the staff of the committee, or something of that kind?

Mr. CANNON. Our committee staff is following the matter very closely on an informal basis. In other words, the Navy has a team working directly on it, which reports back to our staff, or at least our staff inquires of them, as to changes and difficulties that are encountered. So we are trying to keep on it, really, on a week-by-week basis.

Mr. PROXMIRE. That is what I want. On approximately a weekly basis the

staff of the committee is kept fully informed on the progress, or lack of it?

Mr. CANNON. The Senator is correct.

Mr. PROXMIRE. Finally, fourth, the amendment calls for delivery of lot V aircraft in accordance with the terms of the Navy-Grumman contract, and the committee report indicates that the contract calls for calendar year 1974 delivery of the 48 lot V aircraft. This means, does it not, that the committee amendment requires the Navy to get back on schedule for lot V after the 6 months' slip which now seems likely for lot III and IV deliveries?

Mr. CANNON. The Senator is correct in this. It is the intention of the committee based on the testimony of the Navy that it be desirous for the program to get back on the schedule called for in the contract.

That means they would have to make up the 6-month slippage they have gotten themselves into now, which resulted in part from the crash of the first, No. 1 aircraft.

Mr. PROXMIRE. I thank the Senator from Nevada. He has done an outstandingly competent job in this respect; I have followed it very closely.

This has been an extraordinarily expensive program for the Nation, and it could be even more expensive. It is most reassuring to know that the subcommittee of the distinguished Senator from Nevada is right on top of it, and is going to follow it through, and is concerned not only with the great cost of this program, but that we get a quality aircraft out of it, if that is possible.

Mr. President, I ask unanimous consent to have printed in the RECORD certain documents with respect to the F–14.

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

THE NAVY'S F–14 PROGRAM: THE QUAGMIRE DEEPENS

Mr. PROXMIRE. Mr. President, last year I offered an amendment to the military procurement authorization bill which, if approved, would have terminated the F–14 program. That amendment was defeated by a vote of 61–28.

The fiscal year 1973 procurement bill, as approved by the House and reported by the Senate Armed Services Committee, would provide $732.7 million in additional F–14 funding. The Senate version of the bill, however, makes Navy use of fiscal year 1973 procurement funds for the F–14 subject to three conditions: (1) Navy exercise of its option for the purchase of 48 Lot V aircraft on or before October 1, 1972; (2) maintenance of the ceiling price for Lot V established under the existing Grumman contract; and (3) calendar year 1974 delivery to the Navy of the 48 Lot V aircraft. The effect of these conditions is to require continued Navy adherence to the three most important requirements of its contract with Grumman for procurement of the F–14.

When I sought last year to terminate the F–14 program, I did so for three reasons.

First, and most important, I did not believe that F–14 procurement was needed to protect our national security. Given the inherent vulnerability of aircraft carriers to a variety of Soviet air, surface, and submarine threats, I seriously questioned the ability of the F–14 to successfully perform its fleet defense mission. I also pointed out that the F–14A, as an air superiority fighter, was markedly inferior to the projected capabilities of both the F–15 and a new lightweight fighter alternative, while offering little, if any advantages, over a modified version of the F–4 Phantom, the Navy's current frontline fighter.

Mr. President, I do not wish to review here the details of my case against the F–14, but I ask unanimous consent to place in the RECORD at the conclusion of my remarks the arguments which I made to the Senate last year.

Second, I was concerned that already impending cost overruns at Grumman Aerospace Corporation, together with foreseeable technical difficulties which would need correction later, might lead to long-term F–14 costs so high as to cause a positive weakening in our defense posture. The end result, I felt, would be a totally inadequate Navy fighter force structure or a serious drain on funds needed for other high priority Navy programs.

Finally, I was concerned that a Grumman bailout, coming close on the heels of Lockheed's problems with the C–5A, might damage irreparably the integrity of the defense contracting system.

Accordingly, I urged that we drop the F–14 like a hot potato and turn instead to modified F–4s and a new lightweight Navy fighter as the best possible way to meet the Navy's fighter needs.

Nothing has happened in the year since to quiet my fears or weaken my opposition to proceeding with the F–14. In fact, much has occurred to underscore my earlier convictions.

THE QUESTION OF MILITARY NEED

Many observers have felt that the Navy's strongest argument in behalf of the F–14 is the oft-repeated claim that it is the only fighter alternative able to carry the Phoenix missile, without which there will be no way to cope with the Mig–23, the newest Soviet fighter. I have tried on many occasions to dispel this argument—by questioning the basic fleet defense mission, by noting that the Mig–23 is more an interceptor than a fighter, and by pointing to the strong Air Force conviction that the F–15 will be able to handle the Mig–23 despite its inability to carry the Phoenix.

The Navy has refused publicly to recognize these arguments, but its recent actions clearly undercut its case. The June 19th edition of Aviation Week and Space Technology reports that the Navy is quietly pursuing a new "exploratory" missile development for countering the Soviet high-altitude Mig–23 Foxbat interceptor." This new effort involves use of the Sparrow missile, which can be carried not only on the F–14, but the current F–4 Phantom as well. According to Aviation Week:

Navy finally is expected to pick a contractor soon for a feasibility demonstration of an air-to-air anti-radiation missile (ARM) for use against Foxbat and other airborne radar emitters. If the idea is successful, the air-to-air ARM could force the Russian aircraft to employ its pulse Doppler fire control radar sparingly to avoid an ARM intercept, thereby denying Foxbat its main potential threat value of look-down, shoot-down capability. The proposed Navy missile is called Brazo, the Spanish word for arm.

Six or seven companies are reported to be contending for the Brazo contract, which calls for integrating an anti-radiation sensor into an existing Raytheon Sparrow air-to-air missile, assisting in the flight test program and providing analytical support over an 18-month period. The competitors are believed to include North American Rockwell, Raytheon, Hughes Aircraft, Bendix, McDonnell Douglas and Lockheed Missiles & Space Co.

Another point bearing on the military need for the F–14 was brought out in a March, 1972 staff study of the program by the General Accounting Office. The GAO staff study showed that the original Navy studies used to justify the F–14 did not compare the proposed new plane's performance characteristics against those of all potential fighter alternatives. It indicated, in fact, that these studies showed the current F–4J fighter "superior to the F–14 in the projected air combat zones of the 1970's" as regards the key category of maneuverability. The effect of the GAO staff study was to lend considerable weight to earlier Systems Analysis and Air Force studies—never publicly released by the Pentagon—which themselves show the F–14A to be little, if any, better than the F–4 as an air superiority fighter.

In short, these two developments—initiation of a new missile development program and publication of the GAO staff study—go to the heart of the Navy's claims regarding the indispensability of the F–14 for both the fleet defense and air superiority missions.

THE QUESTION OF TECHNICAL DIFFICULTIES

This past year has seen confirmation also of various technical deficiencies in the new plane.

One minor and probably correctible problem is the tendency of gases to be ingested in the plane's engine when its cannon is fired in flight. Both Grumman and the Navy have confirmed the fact that ingestion of these gases causes a brief engine stall which would prove fatal under combat conditions if a solution is not found.

More important is the recent announcement, by the House Appropriations Committee, that the Navy found 43 major flaws and 75 minor problems in F–14 test models during preliminary evaluation tests late last year. The deficiencies cited included engine stall and spin recovery difficulties which I predicted in a Senate speech last fall.

Until recently the Navy claimed that F–14 preliminary evaluation tests were "the most successful . . . ever conducted in any aircraft program." It has now told the House Appropriations Committee that there were problems, but that these are normal in any development program and will all be corrected soon. It has said the same thing regarding the 10 deficiencies noted in the AWG–9/Phoneix missile system's separate test evaluation program.

It is likely, however, that a further tempering of the Navy's optimism will soon be needed. Solutions were to be worked out and successfully demonstrated in the second round of preliminary evaluation tests scheduled for this summer. But just as these tests were about to begin a few weeks ago, a second F–14 test model crashed shortly after take-off on a test flight from the Naval Air Test Center at Patuxent River, Md. The cause of the crash has not yet been determined.

There is other evidence, moreover, that at least one problem encountered in last fall's test program has not yet been solved. I refer to the ability of the F–14 to land safely aboard a carrier or even to approximate this feat.

One recent incident is described in the June 19th edition of Aviation Week:

Navy/Grumman F–14 fighter flown by company test pilot Charles Brown suffered minor damage to its nose gear, including two blown tires, during an incident at the Naval Air Test Center, Patuxent River, Md. last week. The F–14 was making a simulated wave-off maneuver on the ground test carrier installation when its tail hook caught an arresting gear wire, forcing the aircraft into a hard nose-wheel-first landing. The pilot suffered minor back injuries.

A second incident was reported in a letter I received from one of the men aboard the U.S.S. Forrestal during recent F–14 trials. I am withholding my correspondent's name for reasons which should need no explanation:

Dear Senator Proxmire: I do not wish to draw rash conclusions about the F–14 air-

craft. I simply want to alert you to the possibility of a deficiency in its design.

As you know, the first F–14 crashed due to a hydraulic failure.

I was aboard the U.S.S. Forrestal the day that the second F–14 to crash made its arrested landing and first launch from a catapult. The skipper of the ship announced that the F–14 would do nearly 20 "touch and go's" before landing aboard the Forrestal. He later announced that the F–14 only did 3 or 4 passes before landing due to "minor hydraulic problems." The same aircraft crashed a few days later.

I cannot conclude that there is any relationship between the two crashes. I can only ponder upon the possibility.

Respectfully,

NAME WITHHELD.

The Navy commented on the F–14's carrier landing problems as follows in testimony to House Appropriations:

"The Navy is concerned that Grumman's design, which is required to include the direct lift control (DLC) feature, will land aboard ship in a tail low condition while using this device. This condition is aggravated in a full load condition, for example with Phoenix installed. The Navy considers that it is the responsibility of the contractor to insure specification compliance while providing a safe and proper landing attitude. . . . One possible corrective action is the redesign of the flap system which is under examination. The use of a tail bumber is not a satisfactory solution."

When I suggested last year that the F–14 might have difficulties landing on a carrier with a full Phoenix load, my criticism was ridiculed by the Navy. It now seems clear that a deficiency does exist here and that no solution has yet been demonstrated successfully.

The Question of Cost Growth. Official cost projections for a 313 aircraft F–14 program have risen only slightly during the past year, from $16.7 to $16.8 million. But behind the official smokescreen, there have been signs aplenty of rising costs.

In January, Grumman notified the Navy that once Lot IV production was completed, it would accept no further orders under the current contract.

Grumman's announcement sparked a review of F–14 costs within the Department of Defense, a review culminating in a status report on the program submitted to Secretary Laird in February by Dr. John S. Foster, Jr. The Foster report, which the Department of Defense refuses to make public, projected that it would cost $1.25 billion more than official Navy estimates to complete the F–14 program. It put total program costs at $6.5 billion, or $20.8 million per plane, up from almost $5.3 billion, or $16.8 million each. Ignoring sunk costs, projected costs of the 227 planes not yet ordered were pegged at $3.75 billion, or $16.5 million each, a 50 per cent increase over previous Navy estimates of $2.5 billion, or $10.2 million per plane.

In the months since, Grumman has repeated its claim that it would be forced "to close its doors" unless contractual relief is granted, while the Defense Department has asserted its belief that Grumman can be held to the existing contract (at last until after the fall's elections).

POSTURING CONTINUES

There is no doubt in my mind that both Grumman and the Navy have been doing their share of posturing in recent months. Grumman's suggestion that it is still entitled to a profit on the program, notwithstanding its ballooning costs, is patently absurd. Equally so is the Navy's suggestion that projected official costs will not rise if Grumman is held to the present contract. The fact of the matter is that present Navy estimates make no allowance for the cost of equipping later planes with the advanced technology "B" engine, a step which the Navy fully intends to take, which is not covered by the present contract, and which could itself add as much as $2 million to the cost of later planes even if Grumman is held to its legal obligations.

At present, both Grumman and the Navy are doing their best to obfuscate the actual cost status of the F–14 program. I am convinced, however, that there will be revealed when the dust finally settles a Defense Department request for an F–14 funding boost at least as large as the $1.25 billion increase cited in the Foster report. That figure might, in fact, climb higher by the time 43 major flaws and 75 minor deficiencies have finally been corrected.

For all of these reasons, I have been strongly inclined to try once again, by offering an amendment to this year's bill, to terminate the F–14 program. I still fear that there is a real danger, if we proceed further, that we will slowly sink into an ever deepening quagmire.

I have decided not to offer such an amendment, however, because the Senate Armed Services Committee, in authorizing additional F–14 funding, has taken constructive action designed to keep our F–14 options open and, at the same time, to keep Congress' feet on firm ground. I am sure that the Committee's action will appeal also to a large number of other Senators.

The Committee this spring held exhaustive hearings on the F–14, during which the Navy pleaded with the Committee to keep the program going. The Navy argued that it might still be able to hold Grumman to its contract, that it would be able to get deliveries of this year's aircraft back on schedule after the 6 month slip in Lots III and IV, and that it planned no switch during Lot V to the advanced technology "B" engine.

THE COMMITTEE'S ACTION

What the Committee has done is to take the Navy at its word. It has authorized the funds requested, but it has made their obligation and expenditure by the Navy subject to three conditions. I cited those conditions briefly at the outset of my remarks, but I would like to comment on them here in greater detail, both as set forth in the bill itself and as interpreted in the Committee report, which constitutes the most important part of the legislative history surrounding them.

First, the Navy must exercise its option for the purchase of 48 Lot V aircraft on or before October 1, 1972. This is significant because a delay in option exercise beyond that date would break the Navy's contract with Grumman, and any future purchases thereafter would be at new prices negotiated by the parties.

Second, there must be no increase in the ceiling price for Lot V "except in accordance with the terms of such contract including the clause providing for normal technical changes." The quoted language was included by the Committee in recognition of the fact that minor adjustments in ceiling price as a result of technical changes constitute a standard feature of military procurement contracts. It is not intended as an invitation to a back-door bailout of the program. As the Committee report notes: "The intent of this language does not represent authority or permission to financially restructure the existing contract. . . . It is expected that this provision will not be abused."

Third, Grumman must deliver the 48 Lot V aircraft in accordance with the delivery schedule in its current Grumman contract. As the Committee report notes, the contract "provides for the delivery of the 48 F–14s in this bill in calendar year 1974." Adherence to this delivery schedule is of the utmost importance. Lots III and IV have already slipped 6 months behind schedule, and this slip has cost the Government approximately $30 million in extra costs because the Navy has approved the slip. A failure to get back on schedule for the balance of the program could mean many times $30 million in additional excess costs.

These are the three conditions imposed by the Committee in this year's bill. If they are not met, the Navy will have no authority to obligate or expend one penny of the $570,100,000 of F–14 procurement funds included in the bill. It will be forced to report to the Congress within 90 days with its recommendations regarding the future of the F–14 program, and unless those recommendations or some variation of them are approved by Congress, there will be no procurement of the F–14 beyond the 86 aircraft already on order.

I commend the Armed Services Committee and the distinguished chairman of its Tactical Air Power Subcommittee (Mr. Cannon) for placing these conditions on Navy use of this year's F–14 procurement funding. I am pleased to note also that the Navy, in response to the request of my colleague from Nevada, has placed with Grumman the long lead procurement funds for Lot V omitted by the Navy in April when a portion of these funds first came due. As I agreed at that time, payment of these funds can only serve to strengthen the Navy's position against Grumman.

The Committee's action, then, takes the Navy at its repeated word in testimony before the Congress. It does not foreclose any of the options now open to the Government with respect to the future of the F–14 program. It simply ensures that the Congress of the United States, as well as the Department of Defense, will have an opportunity to review the program and approve any changes in present Navy plans which may become necessary at a later time. I find it difficult to believe that anyone could seriously challenge the reasonableness of this action.

DOD REACTION

I was therefore appalled to learn a short time ago that Secretary of Defense Laird had announced at a Pentagon news conference that he would seek removal of the Committee's conditions in conference on the procurement bill with the House. These conditions, Mr. Laird said, denied the Pentagon the flexibility it wished to have to deal with a changing situation.

What Secretary Laird really wants is not flexibility but the power to decide the future of the F–14 program unilaterally and without consulting Congress. He knows as well as anyone that he will be free to propose any of the options now open to him if the Committee's restrictions remain in the bill. What he seeks to take away is the flexibility of the Congress to dispose of his recommendations as it sees fit and before we are totally committed to them.

Secretary Laird and Navy officials have told the Congress that they intend to hold Grumman to the existing contract as long as they possibly can. They have urged approval of this year's F–14 funds on the grounds that they are needed now if they are to do just that. They should not object to Congressional authorization of the funds only on the condition that they in fact do what they have promised.

The Defense Department and the Navy are already suffering from a serious credibility gap as a result of their handling of the F–14 program. Their own cost estimates and optimistic appraisals of test results have been repeatedly torpedoed by later facts which they could not conceal. Yet until these facts have surfaced, they have repeatedly denied requests which I and other members of Congress have made for public release of read-

ily available information which might prove damaging to their latest case.

THE CONFERENCE ACTION IS KEY

I sincerely hope that the Senate conferees will seek retention of their restrictive language in conference with the House. I know that many members of the Armed Services Committee do not share my view of the merits of the F–14 program. But I hope they do share my commitment to a preservation of Congress' role in the weapons acquisition process, whether there is a budget booster or a budget cutter in the White House. I believe that the Committee's action on the fiscal 1972 supplemental request and its inclusion of Section 506 in last year's procurement bill demonstrate that in fact they do.

I also hope that the House conferees will see fit to accept the Senate's position, and I am encouraged in this regard by the explanation of the House position set forth in the report of the House Armed Services Committee.

To sum up, I commend the Senate Armed Services Committee on the action it has taken. Because of that action I will not offer an F–14 termination amendment to this procurement bill. I must make clear, however, that I am firmly determined to offer such an amendment later to the defense appropriations bill if the Senate restrictions in this bill are dropped or emasculated in conference.

I will make clear then why I cannot accept a blank check for the F–14. I would like to conclude now by reading into the record one criticism of the F–14 which appeared in the January 10, 1972 edition of *Aviation Week*. It is written by a Navy fighter pilot with more than 100 combat missions in Vietnam, and it contains—once the initial technical paragraphs have been waded through—one of the most clear-cut and devastating analyses of the program which I have seen to date.

[From Aviation Week & Space Technology, Jan. 10, 1972]

F–14 COSTS, MISSIONS

The Dec. 6 issue (p. 62) contains a letter by Lt. Cdr. J. G. Hohlstein which attempts to defend the F–14. I say attempts to defend it, since the author misses entirely the salient points of the major arguments directed against the F–14. I would like to clarify several of them.

First, the question of complexity, Lt. Cdr. Hohlstein claims that it is not possible to build a fighter which does not "require the tacking on of heavy and complicated gear in order to do such basic things as navigate, communicate and provide for their own defense over hostile territory."

This is nonsense. The equipment required for these purposes is neither heavy nor complicated. It need not even be expensive. Any number of vendors can provide a full navigation suit for a fighter aircraft for not over 145 lb. Such a suit could include Tacan, ADF, inertial measuring unit (IMU), attitude heading and reference system (AHARS), a radar altimeter and even a central air data computer in addition to flight instruments. A fighter purist might delete the AHARS and IMU and reduce the weight to less than 90 lb. A full communications capability, including secure voice, selective identification feature, data link and landing aids, is available for a weight of approximately 125 lb. using off-the-shelf equipment meeting Mil-Specs. It is not unreasonable to expect a full comm/nav suit could be developed in the near term for less than 200 lb. including a gunsight.

Self-defense is different things to different people. Elint and ECM adequate for a small fighter need not be a severe weight penalty. Airborne intercept (AI) radar is a different matter. The APQ–72 and AWG–10 systems used in the F–4 weigh in at over 2,000 lb. Most combat experience has shown that AI radar has seldom provided information required for "self-defense over hostile territory." The AI radar coverage is oriented in the forward hemisphere, and the attacks invariably come from the rear. It is difficult to justify the inclusion of AI radar in a fighter for "self-defense over hostile territory."

Even if an AI radar capability is desired, it is difficult to justify something such as the AWG–9. There are numerous excellent AI radars available at weights far less than 250 lb., if you feel the need for one. Since you buy avionics (and aircraft) "by the pound," a savings of several thousand pounds in avionics is a very worthwhile thing. Not only would this save several million dollars per aircraft, but with growth factors the way they are, you could save around 10,000 lb. in takeoff gross weight (TOGW). I am sure many engineers can show Lt. Cdr. Hohlstein how he can have a full avionics suit for a fighter, including air-to-air and air-to-ground radar and inertial navigation for less than 750 lb.

The next point is fuel weights. Lt. Cdr. Hohlstein says "they have also required large fuel loads in order to take the fight to the enemy." Combat radius does in fact affect fuel requirements, but other factors have even greater effect. Fighter aircraft of all nations carry comparable fuel loads.

The "short-legged" MiG–21 has 5,000 lb. of fuel in its TOGW of 17,600 lb. This is about 29% of the TOGW. The F–4 carries 13,000 lb. of fuel when it takes off at 45,000 lb. (fighter configuration). The F–14 should carry around 17,000 lb. of fuel when it takes off at 55,000 lb. (once again fighter configured). Note that both the F–4 and F–14 fuel loads, in terms of percent of TOGW, are comparable to the MiG. Only efficiency of fuel consumption, not total fuel, will vary the ranges. While the F–14 can claim a better cruise efficiency, by virtue of its fanjet engine, this same engine has markedly poorer fuel consumption at afterburner throttle settings and at high Mach.

I have over a hundred combat missions in the F–4 in Vietnam and I can recall few in which I exceeded the 375-naut.-mi. combat radius which Jane's All The World's Aircraft ascribes to the MiG-21, without one or more inflight refuelings. In any event, radius of action must be a secondary consideration in a fighter aircraft. A large combat radius is not beneficial if one loses the engagement at the other end. To paraphrase Mark Twain: "A fighter needs legs only long enough to reach the fight."

Lt. Col. Hohlstein says the Foxbat "is not lightweight, does not have a low-wing-loading, is not small, and is not cheap." I agree. Neither is it a fighter. All these terms could also be applied to the F–14. Incidentally, if the commander does not consider the presently quoted price of the F–14—$16,700,000—"staggering beyond belief" then he surely is not easily staggered. One must also remember that life-cycle cost is five-ten times acquisition cost. Does a life-cycle cost of $80–$100 million stagger you?

Price really is the crux of the argument against the F–14 since price affects the number to be purchased, obviously. As the F–14 price went from $7.2 million in 1969 to $16.7 million in 1971, the buy went from nearly 600 to less than 350. Thus the question facing the Navy is, "Can we afford the F–14?" This may not be germane now, but in 1975, when the F–14 alone absorbs 75% of the Navy's PAMN funds, it will become critical. The USAF has a total aircraft buy in 1973 of less than 100. The Navy will be far worse off in 1975. We lost more than 7,000 planes in Vietnam, half of them fixed wing. The total number of F–4 aircraft lost in Vietnam exceeds the total planned buy of F–14 aircraft. Are we willing to lose several hundred F–14s in some small future war, and if so, what effect will this have on fleet inventory?

All the foregoing represents but the tip of the iceberg. The F–14 is being touted as able to beat any fighter in the world on a one-to-one basis. The fallacy in this argument is how can the F–14 ever expect to locate an enemy who has so few aircraft that our magic F–14 can engage on a one-to-one basis?

The total F–14 buy is exceeded by the MIG–21 inventory of even such small nations as Egypt. North Korea and all the Warsaw Pact nations. There is no way the Seventh Fleet could ever provide enough F–14 aircraft on a "one-time" basis to engage even the North Vietnamese MIG–21 force on a one-on-one basis.

The one-on-one situation seldom occurs except in the sterile training environment in the U.S. (or the minds of Pentagon planners). Numerical superiority is often decisive in air warfare, and "magic" airplanes seldom affect the outcome. The Germans had over 30,000 Me–109 aircraft; the British had over 50,000 Spitfires and Hurricanes. These high-volume aircraft are the ones that affect the outcome of air warfare, not the small numbers of technological curiosities such as the Me–262 and the Foxbat. These latter aircraft have no influence unless they can be purchased in large quantities. Does Lt. Cdr. Hohlstein seriously believe we can ever get sufficient funds to buy and support adequate numbers of F–14 aircraft?

The basic question then is, can the money spent for a single F–14 be better spent to provide fighter aircraft? The answer must be yes.

For the same price as one F–14, the Navy can have at least five F–4 aircraft, eight F–8 or ten A–4M. If Lt. Cdr. Hohlstein takes one F–14 and engages ten A–4s he is going to lose, even if every one of his missiles works perfectly. As compared to the enemy, a single F–14 is equal in cost to a squadron (a big one) of MIG–21s. One F–14 versus a squadron of MIG–21s is a poor bet for the U.S. Navy.

A German ace of World War 1, Werner Voss, engaged a squadron of British fighters once . . . but only once. The Germans rate him in the "ace-of-the-base" category, and he still lost. Let's face it, the average joker needs a wingman, and he can sure use numerical parity in a fight. The F–14 puts the Navy well along the road to "let's buy just one aircraft and let everybody take turns flying it."

I appreciate Lt. Cdr. Hohlstein's vast F–4 experience, all the more since I was one of those instructors who helped him check out in it, initially. When it comes to the F–14 "Tom-Turkey," I once again feel like an instructor.

Name withheld by request.

THE CASE AGAINST THE F–14—PART 1
THE FOLLY OF FLEET AIR DEFENSE

SEPTEMBER 1971

Mr. PROXMIRE. 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 car-

rier 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–14 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 wolf-pack 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 reconnaisance have greatly reduced the ability of naval task forces to hide in the broad expenses 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 Soviet's 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 expand 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) and 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 deck. 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 during 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 this 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 cancelled 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 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 dog-fighting 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 dog-

fighting capability of the F111B 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* Navy 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.

Then 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 has 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 communication 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 able 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 highly 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 wheth-

er 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 bombers 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 bombers 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 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 cheapter 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. These 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 not 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 missile, 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.

III. 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 figures 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 Weapon 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 hig.ly 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.

IV. 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 think 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 version 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 hoped 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 could 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 adaptable 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–14, 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.

THE CASE AGAINST THE F–14—PART 2: THE NEED FOR A FIRST-RATE FIGHTER

September 1971

Mr. PROXMIRE. 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 outper-

form 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 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 areas, and a water supply of some kind.

There are over 1,700 such airfields in noncommunist 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 is 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 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 for 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 any 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 straightforward. 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 ever 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 bil-

lion 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 been 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 any 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 non-existent.

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 forces, 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 compromise 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 an 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 out-turn 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 Grumman 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 Grumman over who might have to bear their costs. The Navy claims the directional stability problem is a deficiency which Grumman would have to rectify, while Grumman 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 its 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.

LOCKHEED'S "KELLY" JOHNSON DEPLORES SHRINKING U.S. FIGHTER STRENGTH

"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 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 prototypes 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 a job 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. CANNON. I thank my distinguished colleague. I recognize that he has followed this program very seriously.

I may say to the Senator that we are not completely satisfied as to where we are going on this program at the present time; because, as the Senator knows, we are confronted with the situation as I reported the other day, that Grumman has indicated that there is a question as to whether they can perform if they are held to the contract. On the other hand, the Navy has recommended to us that Grumman be held to the contract. So at least we do not want to be in the position of having the Government default on the contract, which would open the door for Grumman to come in and the cost to go up, if we are going to have the aircraft and it appears that it is going to be a very excellent plane and one that the Navy needs very badly. We do not want to be the ones to put the Government in the position of breaking the contract.

Mr. PROXMIRE. I am still very skeptical about the whole mission of this

plane, but I agree wholeheartedly with the sentiments expressed by the Senator in the speech he delivered before I started asking him questions.

I will support the Senator in everything I can do to help him prevent the Government from defaulting on the contract. I agree that that would be a mistake from a fiscal standpoint as well as a mistake in terms of the strength of our defenses.

Mr. CANNON. I thank my colleague.

The PRESIDING OFFICER. What is the pleasure of the Senate?

Mr. PROXMIRE. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

THE AABNCP: WHAT DO THE ARMED SERVICES COMMITTEE'S PROPOSALS REALLY MEAN FOR THE NEW PRESIDENTIAL COMMAND POST PROGRAM?

Mr. PROXMIRE. Mr. President, the fiscal 1973 budget request called for a downpayment of $261 million, of which $256.4 million is subject to authorization in this bill, for a new Presidential Command Post program. That program, as presently envisaged, calls for the purchase of seven Boeing 747 aircraft for use by top defense planners and decision-makers in the event of a national emergency. Three of the planes are to be stationed at Andrews Air Force base for Presidential use, while the remaining four planes would be turned over to the Strategic Air Command.

Earlier this year I delivered a floor speech which was highly critical of this new Air Force managed program. In that speech, I called for a denial of large-scale command post funding pending the completion of further studies under the direction of the National Security Council. Mr. President, I ask unanimous consent to have printed in the RECORD, at the conclusion of my remarks, a copy of my earlier speech.

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

(See exhibit 1.)

COMMITTEE ACTION

Mr. PROXMIRE. The Armed Services Committee, in reporting out this bill, has chosen to follow its own course of action. It has rejected both the budget request and my proposed alternative. Its recommendation calls for congressional approval of $120 million of the $256.8 million requested by the Air Force. The funds recommended would permit purchase of four of the six Boeing 747's originally budgeted for fiscal 1973 together with substantial development work on new equipment to be placed inside these airplanes.

I do not intend to challenge the committee's recommendations by means of a floor amendment. I feel that they constitute a constructive attempt to come to grips with some of the problems posed by this program. In addition, I am sure that they will be reviewed further by both the Senate and House Appropriations Committees. The distinguished recently deceased chairman of the Senate Appropriations Committee (Mr. ELLENDER) made clear to me in a letter that he shares many of the concerns raised in my earlier speech, and the interest of the able House Appropriations Committee chairman (Mr. MAHON) is amply documented in the transcript of his committee's hearings on the command post program.

I would like to discuss with the distinguished chairman of our Armed Services Committee, however, the reasoning which lies behind his committee's recommendations and how the committee intends to follow up on them should they be finally enacted into law.

SPECIFIC QUESTIONS

These are the specific questions which I would like to ask the Senator from Mississippi (Mr. STENNIS):

First. The full command post program, as envisaged originally by the Air Force, calls for the purchase of seven Boeing 747's. The first three aircraft would be reserved initially for Presidential use and would have transferred to them as soon as they are purchased the communications equipment and data processing gear now installed in the three existing EC–135 Presidential command post aircraft. The fourth aircraft would be used meanwhile for prototype testing of new equipment. Finally, once this new equipment is developed, it would be installed in the fifth, sixth, and seventh aircraft. These last three aircraft would then be made available to the President, with the first three aircraft and the fourth aircraft prototype reverting to the Strategic Air Command.

One consideration which has troubled me very much about this proposed program and schedule is that the four aircraft reverting to the Air Force might constitute an opening wedge in an eventual Air Force request for replacement of its entire EC–135 fleet with new 747's. As you know, the Air Force has 45 EC–135 command post aircraft in its fleet at the present time, and their replacement by 747s at a cost of up to $50 million per fully equipped aircraft might involve a price tag in excess of $2 billion. The current EC–135 aircraft are, of course, only 10 years old, but I am concerned that the Air Force might cite congressional approval now of four replacement aircraft as a recognition of a much greater replacement need in a very short time. In fact, I wonder in all honesty whether the Air Force has not had this in the back of their mind in calling for a seven aircraft program now, rather than the three or four aircraft which would seem to suffice for Presidential needs if new equipment was transferred to these aircraft as soon as it was developed.

One attractive feature of the committee's recommendation, which involves approval now for only four of the seven aircraft envisaged in the program, is that it holds open the possibility that this more limited course may eventually be followed. Accordingly, I would like to ask the distinguished chairman of the Armed Services Committee:

Has the committee made, as yet, any final determination that more than the four 747s recommended for purchase in this bill will be needed to complete this command post program, or is it holding open its options regarding all future purchases?

Mr. STENNIS. Before I answer that question specifically I want to thank the Senator from Wisconsin for his support of the recommendations in the bill for this comand post program. The program was very seriously considered and was approved, to the extent that it is in the bill, on the ground that it is a command post that the President of the United States himself might need as Commander in Chief.

In reply to the specific question, as the Senator accurately described, the total program includes procurement of seven Boeing 747 aircraft. Six were requested for 1973 and the committee is recommending procurement of four. Frankly, we were not satisfied that there was a need this year for more than four aircraft, and as noted in the committee report, future procurement requests will be decided as they are requested.

In other words, we certainly thought this was as much as could be handled this year and approved. The others will have to be justified on their own merits.

Mr. PROXMIRE. In other words, the committee reserves the option that it may or may not approve more than four aircraft depending on conditions in the future.

Mr. STENNIS. That is correct.

Mr. PROXMIRE. Second, the Air Force is now proposing that the equipment in the three EC–135 Presidential command post aircraft be taken out of these planes and placed in three new 747's. Does the Senator see any technical reasons why it would not be possible later to take this same old equipment out of the 747's and move in the new equipment at that time? Would that not be less expensive than buying three new aircraft for the new equipment?

Mr. STENNIS. No. I am aware of no technical reasons why it will not be possible, later, to take the old equipment out and replace it with new equipment when the new equipment is available. That is part of the Air Force plan. However, as the Senator indicated earlier, the total program is for seven aircraft—three for the Presidential Command Post, three for the Strategic Air Command, and one to serve as a training and support aircraft.

So if the total program is approved, and the committee is only recommending four aircraft this year, three more aircraft will ultimately be required.

Mr. PROXMIRE. Does the committee believe that the Air Force has a definite near-term need of its own, apart from the Presidential need, for replacing its EC–135 command post aircraft? If the committee does believe that such a need exists, why is that the case, and just how many new aircraft—4 or 45—will be needed? Would the communications and data processing gear in four Boeing 747's be compatible with that in the 41 EC–135's?

Mr. STENNIS. I do not believe that I can speak for the committee since there

has been no decision yet on the Strategic Air Command aircraft. However, my initial judgment is that there is a requirement for SAC Command Post aircraft. In the Air Force total program of seven aircraft, three will go to SAC, and the communications and data processing gear would be compatible not only with the remaining EC–135's, but with the entire World Wide Military Command and Control System.

I should point out that the seven aircraft proposed program is going to replace 18 of the existing 45 airplane fleet and there is no proposal beyond the seven that we have been discussing.

Mr. PROXMIRE. As the Senator knows, the DC–10 and the L–1011 cost approximately $7 million less per copy than the 747. Accordingly, use of the 747, rather than one of these planes, in a 45 aircraft Air Force replacement program, could present the taxpayer with $315 million in extra costs. And even if a plane as large as the 747 is needed to meet future Presidential needs, it seems likely that a DC–10 or L–1011 would suffice for the different needs of the Air Force. Is this not an important justification for limiting the present Presidential Command Post program to four aircraft, not providing the Air Force with any 747s on a fallout basis, and then looking at Air Force needs separately some time in the future to insure a compatible replacement force which would not waste over $300 million of the taxpayers' money?

Mr. STENNIS. I do not see in the program that we are discussing a potential to waste $300 million of the taxpayer's money. The Air Force has not proposed a 45 aircraft program. As I mentioned earlier, the proposed program is seven aircraft. I realize that the DC–10 and the L–1011 are cheaper. The committee took a good hard look at the requirements and those aircraft. It was the position of the committee that there were definite advantages to the 747 aircraft.

First. The 747 would provide about 40 percent more floor space.

Second. For a minimum time of 12 hours, 747 carries about 20 percent more payload.

All in all, the 747's potential for future growth is superior, and would insure that the AABNCP procured now need not be replaced in just a few years after deployment, which is an important consideration in terms of program costs. Other factors of consequence related to the 747 include its immediate availability, its proven reliability in extensive commercial operations, and its ability to use shorter runways than can the DC–10 and L–1011.

Mr. PROXMIRE. Navy testimony before the House Appropriations Committee indicated that the Navy has no counterpart to the Air Force CINCSAC Command Post aircraft. The Navy TACAMO 130's, a Navy admiral said, could not be classified as command posts. Does not the Navy's ability to get along without command post aircraft to control its seabased missiles cast doubt on the urgency of the Air Force's need for command post aircraft to control its land-based missiles?

Mr. STENNIS. I am sure the Senator will appreciate that any details on command and control of the sea-based missile force are classified. However, the Navy TACAMO aircraft functions as a communication relay aircraft and we cannot compare them with the SAC Command Post aircraft. No command decisions relating to strategic forces are made on the TACAMO aircraft.

SAC also has communication relay aircraft. However, the SAC Command we are looking at are command post as opposed to radio relay aircraft.

Mr. PROXMIRE. Describe the nature of the work which the committee intends to monitor, its projected timetable for completion, and the likelihood that sufficient progress will be made in the next 12 months to permit committee approval of a procurement request next year for either additional aircraft or new electronic gear.

Mr. STENNIS. As I stated earlier, I consider this to be a most important program. But the plain facts are that some development work is required. The committee felt, this year, that the request was a little too ambitious—they were trying to go too fast. The problem is not so much the development of new equipment but making all the equipments work together by use of a computer.

The committee will monitor the progress of this program just as it does other programs. The committee will review cost, schedule progress and consider the degree of technical risk. You understand, of course, that the committee recommended a reduction in both procurement and R. & D. this year. The exact schedule and amount of progress will depend somewhat on how much funding is eventually approved by Congress.

As to the likelihood that sufficient progress will be made to permit Committee approval of a procurement request next year, I do not see how we can make a valid judgment at this time. It is possible Air Force may not request procurement funding next year. We will just have to wait and see.

Mr. PROXMIRE. Mr. President, I should like to turn now to another matter. Another thing which troubled me about the original Air Force program was the fact that it seemed to run counter to the Defense Department's professed commitment to a "Fly Before You Buy" procurement policy. The fourth plane requested was to be used for research and development work on new communications and data processing gear. But before that work was even started the Air Force asked for three planes into which old electronic gear could be placed on an interim basis and two additional planes which, presumably, would be kept waiting till the new gear was ready for them.

The committee turned down the Air Force request for the last two planes, and the committee's report noted some concern for the concurrency which existed between development and production in the original schedule. The report states that:

Approval of future procurement requests will be dependent upon satisfactory progress of the required research and development work.

I would like to ask my colleague precisely what is meant by that statement. I wonder if he would describe the nature of the work which the committee intends to monitor, its projected timetable for completion, and the likelihood that sufficient progress will be made in the next 12 months to permit committee approval of a procurement request next year for either additional aircraft or new electronic gear?

Third. Finally, I would like to ask my colleague about the committee's decision to recommend purchase now of the first three aircraft requested for use with the old electronic gear now in the President's EC–135. The committee suggests in its report that the new aircraft, even with old equipment, will be more survivable and more capable than the old aircraft themselves. I wonder, however, whether the improvement is really very significant. Now, I ask the chairman and manager of this bill:

It is true, is it not, that the survivability of the new aircraft against the effects of electromagnetic pulse will be no better than that of the old? Will not improved survivability have to wait on development of new electronics gear as well as modifications to the airframe itself?

Mr. STENNIS. I assume that you are asking about the ability of the new aircraft and its equipment to continue to operate after the effect of electromagnetic pulse have occurred.

If this is the case, the first three aircraft that will be modified with the old equipment will be no better than the EC–135 aircraft. When all of the new equipment are installed in the 747 aircraft, electromagnetic pulse effect should not be a major problem.

There is more to the survivability of the new aircraft than just EMP. For example, as compared with the EC–135 aircraft currently used for airborne command post operations, the new 747 aircraft would have greater airborne endurance, larger geographical operating areas, and the ability to take off and land at a greater number of airfields—all of which would make an immediate contribution to improved survivability.

On the subject of EMP again, a considerable amount of engineering data is available. The techniques for minimizing the effects of EMP are known today and will be applied in an orderly process to the 747 aircraft as they are being constructed. On the other hand, the EC–135 would have to be completely rebuilt to achieve the same degree of insensitivity to EMP.

Mr. PROXMIRE. In testimony before the House Appropriations Committee, the Air Force said that it had some new off-the-shelf items not in the EC–135 command posts ready to move into the first three 747's, but that these would not be installed until sometime "between the second and fourth quarters of fiscal 1974." Has the committee been told subsequently that installation of any new equipment is now planned during fiscal 1973, the year covered by this bill?

Mr. STENNIS. Testimony to the committee was that no major new equipment is planned to be installed during fiscal year 1973. Modifications of the switchboard are planned in fiscal year 1973 to improve its reliability and to provide

additional capacity for the larger battle staff.

Let me assure you that the committee was initially concerned about the modification of three aircraft with old EC–135 equipment. The committee report states that:

In order to obtain maximum benefit from this interim step, and to avoid the expense of installing equipment of marginal utility, the Air Force should replace as much of the EC–135 equipment as practical during the modification of the three aircraft.

Mr. PROXMIRE. I recognize that purchase of these larger planes would make it possible at once to carry larger battle staff and more civilian advisers aboard each aircraft. The House Appropriations Committee was told, however, that this program's high personnel requirements had been established by the Air Force without any directions from the White House that that many men were needed or wanted on a Presidential command post plane. Has the committee made any attempt to contact the National Security Council, as opposed to the Defense Department or the Air Force, to elicit its view as to the urgency of this crash program which is, after all, for the direct use of the President?

Mr. STENNIS. This program's "high personnel requirements" for the NEACP were not established by the Air Force. They were established by the Joint Chiefs of Staff, who are the principal military advisers to the President, and who have the responsibilities for providing the President with the facilities and military staff to support the President and his staff in his general war responsibilities. The nature and size of the President's immediate staff was provided to the JCS by the White House. Moreover, the President forwarded the fiscal year 1973 supplemental budget request and the fiscal year 1973 request, which indicates his concern for, and approval of, this program.

I recognize that his committee's investigation of this program has been much more thorough than my own. I also want to assure him that I share his commitment to a first rate command and control system. As his committee's report says:

To spend billions for sufficient strategic forces and yet be unable to adequately command and control the response of these forces cannot be tolerated.

But I think that a topnotch command and control system can best be achieved through a well-conceived and orderly managed development and procurement program. I know that the Armed Services Committee will do all it can in the years ahead to see that we have just that kind of program.

Now, Mr. President, I thank the distinguished Senator from Mississippi for his most helpful answers and for the excellent leadership he has given not only on this matter but on all other matters. He and I have differed from time to time on authorizations and appropriations for procurement, but I have the greatest respect for his remarkable competence and for his graciousness in handling these most difficult problems.

Mr. STENNIS. I certainly thank the Senator from Wisconsin. I appreciate very much his efforts. He is a hard worker. He is a difficult man to head off when he gets his facts in line. I appreciate his questions about this matter. As I say, we were concerned from the beginning about having to spend this much money on the new 747's, but we never could get away from the fact that this concerns directly the President of the United States.

Mr. PROXMIRE. I have one additional question, regarding the deletion of $349 million in funds for strategic weapons programs without prejudice. Part of that money, $239 million of it, was for an ABM in Washington, as I understand it, and the other part, $110 million, was for strategic research and development. That was deleted without prejudice. That means that the armed services conferees will go to conference with the House, and the House has the money in. The Senate has not taken a firm position. What will be the status of this in conference? How will the Senator handle it? It seems to me it is a puzzling position to have it deleted without prejudice.

Mr. STENNIS. Here is the background about those two requests. Frankly, my idea was that neither one of the two items should go into the bill without our careful consideration and hearings. We were able to provide them at that time. We had been apprised in advance, but the official request with the official estimates did not get in until the day before we completed marking up the bill and putting it together, as the Senator understands, and voting it out.

We thought we had to close the books and report the bill, otherwise it might be September before taking the bill to the Senate. But by getting it on the calendar, we got in ahead of the others and we are considering it now. The idea of being deleted without prejudice was mine. I suggested that solely for the reason that we did not want to leave an impression that we considered these items on their merits and finally turned them down. They were just left out without prejudice for or against them.

I said at the time that, as to the major item, the NCA, I thought we would have to have much more proof as to the probable cost and hold some hearings on it before I would be willing to just recommend it to the Senate, either as part of this bill or as part of any bill out of a conference. I am deliberately choosing my words now, because I recognize that we cannot give a fully binding promise as to what a conference committee will do. However, there has not been time to hold any hearings on this National Command Authority since we closed the bill. And before I would agree to a conference action, we would have to hold hearings ourselves and be satisfied that it was justified, and only under those circumstances would I agree to the program going in a conference bill.

Mr. PROXMIRE. Mr. President, the difficulty is that if the conference committee passed it, we might get locked in on the matter of having an ABM in Washington. I believe if this matter were put to a vote in the Senate, it might well be defeated, and defeated decisively.

We will not have an opportunity to vote on this now unless the Senator comes in with a committee amendment of some kind.

Mr. STENNIS. Mr. President, the committee has no plans now for the Senate to get locked in on anything. And the committee is not going to get locked in on anything. We just did not have time to consider the matter.

Before I would agree to it in conference, personally, as I said, there would have to be some hearings by us that justified our committee or even a majority of the committee—not just the conferees, but the committee—joining in a recommendation that the Senate accept it.

Mr. PROXMIRE. Mr. President, I thank the Senator. I simply call his attention to the fact that there has been a great deal of opposition expressed to this, and especially to the ABM in Washington, by most Members of the Senate and of the House of Representatives.

I appreciate the assurance of the Senator that there will be hearings and that the matter will be thoroughly examined and fully justified before it would be put in the conference report.

Mr. STENNIS. That is the way I feel about it. We would have to have hearings. At the time the bill was reported, on short notice, I do not think that a majority of the committee would have voted in favor of it being in the bill.

I was not willing to put it in the bill with the brief information that we had before us. As it turns out, we have not had time to hold any hearings yet.

I repeat that before I would agree to it as a conference, we would have to have hearings and get our full committee to think about it.

Mr. PROXMIRE. Mr. President, I thank the Senator.

EXHIBIT 1

THE AABNCP: NEEDED PRESIDENTIAL COMMAND POST OR AIR FORCE LUXURY HOTEL?

Mr. PROXMIRE. Mr. President, the new defense budget includes a $261 million downpayment on a new Air Force program which has received very little public scrutiny to date. I refer to the Advanced Airborne National Command Post (AABNCP) program, which calls for the purchase of 7 Boeing 747 aircraft for use by top defense planners and decision makers in the event of a national emergency. Three of the planes would be stationed at Andrews Air Force base for Presidential use, while the remaining four planes would be turned over to the Strategic Air Command.

According to the Defense Department, these new planes are needed because of deficiencies present in the EC–135 aircraft now used for Airborne National Command Post purposes. As Secretary of Defense Laird explained in his posture statement to the Congress:

"Our current airborne command and control system is deficient in that it lacks capacity for added communications and data processing equipment. We need to improve the survivability of the system, and to provide the more secure communications needed for control and execution of the forces, the long endurance, the space for sufficient high level staff to support the National Command Authorities, and space for the battle staff and equipments which provide the information needed in the critical decision-making process."

I fully recognize the need for a top-notch command and control system. Our strategic posture could be gravely compromised—and

the lives of millions of people jeopardized—by deficiencies in this area. If our present system is deficient, it should be improved, and I will fully support any efforts likely to achieve that goal.

But I cannot support this program as presently structured by the Air Force. My own investigation, strongly reinforced by some excellent hearings recently published by the House Defense Appropriations Subcommittee, convinces me:

that this new program has been hastily conceived and poorly planned;

that it stands in gross violation of the "Fly Before You Buy" policy to which the Defense Department subscribes; and

that it is, in fact, a classic textbook example of how to botch an important military program.

Mr. President, these are strong words, but I hope to back them up in my remarks today. The $261 million budgeted for this program would enable the Air Force to buy 6 of the 7 new 747s it ultimately claims are needed. Yet we need none of these aircraft now, since the new equipment which would go inside has not yet been developed. And we may not need them later, since that equipment and the necessary staff personnel would almost certainly fit comfortably in slightly smaller and significantly less expensive DC–10 or L–1011 aircraft.

Seldom has the cart been put further before the horse. And seldom has there been a program more replete with hidden motives totally unrelated to the official rationale.

This situation deserves immediate attention by all members of Congress devoted to a sound procurement policy. We have not yet embarked on this ambitious effort to improve our command and control capabilities. We still have time to do the job right. That chance will be lost, however, unless this program is stopped long enough to determine what our command post needs really are.

I. THE OFFICIAL AIR FORCE RATIONALE

Air Force plans for a new fleet of command post aircraft were first presented to the Congress in the form of a supplemental request to the fiscal 1972 budget. This January, 1972 request sought $119.8 million, $113.8 million of which was to be used for the purchase and modification of 4 Boeing 747s and $6 million of which was to be devoted to related R&D efforts. The Air Force announced at that time that two additional aircraft would be purchased in fiscal 1973 and one more in fiscal 1974. Fiscal 1973 funding was pegged at $141.2 million and total program costs were estimated at $428 million. Shortly thereafter, the Senate Armed Services Committee announced that it would defer action on the supplemental request and consider it in conjunction with the requested fiscal 1973 funding. Accordingly, $261 million—covering 6 of the 7 planned aircraft and over 60 per cent of the presently estimated total program costs—is at stake in this year's budget.

In presenting its plans, the Air Force cited three reasons why a new fleet of command post aircraft was needed.

First, there was concern about the *survivability* of present aircraft in a nuclear effects environment. As Secretary Laird noted in testimony to the House Defense Appropriations Subcommittee:

"If our command and control cannot survive, it doesn't make any difference how many of those submarines and how many of those missiles we have. Mr. Chairman, when we started back here in this Committee in going forward with some of the programs we did to insure command and control, we were talking at that time, back in the early fifties, about survivability under an attack by weapon systems that had accuracy problems and were much different from the refined weapon systems that the Soviet Union now possesses. Against such a threat, the survivability of those kinds of command and control facilities is questionable."

This survivability problem was to be countered, Laird noted, by making the new aircraft better able to withstand the effects of electromagnetic pulses (EMPs) produced by large nuclear explosions.

A second concern was the lack of space for both men and new equipment on existing EC–135 command post aircraft. As the House Subcommittee was told by Laird:

"I am sure you have had an opportunity to be on the alert aircraft that are at Andrews right now. Before a person can go to the back of the plane, everyone has to move out of his chair. Even the people who are operating the equipment must move—you can hardly get through back to the quarters where the command authority will be. These aircraft are really loaded down.

"This particular aircraft that we presently have is approximately 880 square feet in size. The aircraft that we want will have approximately 3,400 square feet of space."

This added space, the House Subcommittee was told, would be used for new communications and data processing gear. It would also provide room for 39 battle staff personnel and 50 to 100 other advisors, considerably more than double the present EC–135 personnel capacity.

Finally, concern was expressed about the limited *airborne endurance* of an unrefueled EC–135. In contrast to its 8 hour maximum without refueling, a Boeing 747 could stay airborne for 16 hours at a time, providing increased flexibility in crisis management decision-making.

These deficiencies, the House Subcommittee was told, made immediate action on a new command post an urgent necessity. In fact, the urgency was so great that an unusually structured program was required.

Three 747s were to be purchased immediately and existing EC–135 equipment transferred to them to "provide some important improvements in our capability by 1973." As Secretary Laird explained:

"By providing a larger, more capable aircraft, even with the present electronic equipment, we will be able to obtain greater endurance, more flexibility, larger battle staffs, a larger group of varied experts to support top level decision-making, and additional space to put improved communications and automatic data processing as it becomes available."

The fourth aircraft was to be used as a prototype for EMP tests and the development and operational testing of the new equipment which would eventually be installed in all aircraft.

Once the final equipment configuration was thus determined through prototype work, it would be installed in aircraft numbers 5, 6, and 7. These aircraft would then be made available for Presidential use and the first three aircraft, together with the prototype, would be turned over to the Strategic Air Command (SAC). This final configuration was expected to be operational sometime in 1975.

Such was the case presented by the Air Force for its new command post program. Program initiation has been delayed by deferral of action on supplemental fiscal 1972 funding, but the Air Force remains poised for an early go-ahead.

II. THE RATIONALE EXAMINED

On the surface, there is an air of plausibility to this new command post program. One need not look far, however, to quickly dispel that illusion.

The Role of the First Three Aircraft. In its report on the fiscal 1972 military procurement bill, the Senate Armed Services Committee called attention to a continuing problem:

"Weapons programs involving a large degree of concurrency, or overlap between development and production, have resulted in commitments to production while great technological uncertainties still remain to be resolved. . . ." When changes must finally be made in weapon design during the later stages of development, concurrency has maximized the cost of these changes. . . . In a surprisingly large number of cases, DOD policies over the last several years have emphasized the development of platforms for weapons without sufficient emphasis on the weapons themselves."

These words are directly applicable to Air Force plans regarding the first three aircraft in the command post program. The Air Force intends to procure three 747 platforms now, despite the fact that development of the new equipment to be installed has not yet begun.

Its justification is the overriding urgency of the program, an urgency not recognized until a command and control review study was completed and a directive issued on December 23rd of last year, less than one month before the first funding request for the program was formally presented to the Congress. At that time the Air Force had already submitted its proposed fiscal 1973 budget—with no AABNCP funds included—to the Department of Defense for review.

This sudden recognition of the need for a new command post is quite surprising. Space has been tight on the EC–135 for some time. The effects of electromagnetic pulses have also been well known. As House Subcommittee Chairman George Mahon responded when quick approval of the new program was requested:

"But Mr. Secretary, you know that this administration and prior administrations have been alert to the problem of command and control. You have not been negligent, and the Congress has not been negligent in providing command and control. We have planes and we have land command and control systems, and I thought they were reasonably good. To suddenly develop this extreme need seems uncharacteristic."

Even if a need does exist, it seems doubtful that much will be done to meet it by buying new planes and putting the old equipment inside.

The new planes will not themselves solve and in fact are not needed for a solution to the electromagnetic pulse program. As General Glasser told the House Subcommittee:

"We would need to do substantial modifications to the aircraft to make it more impervious to the effects of electromagnetic pulse. . . . These are shielding, isolation, and things of that sort. They really do not have much relation to [aircraft] size."

These modifications could be made on EC–135 aircraft. And they would not be made on the first three 747s until substantial EMP tests had been completed on the fourth prototype aircraft.

Nor would purchase of the first three aircraft make more equipment available to top national commanders. As noted earlier, much of this equipment has yet to be developed. While a few new off-the-shelf items have already been earmarked, even these would not be installed until sometime "between the second and fourth quarters of fiscal 1974."

Immediate purchase of the three aircraft would create room for more personnel aboard the plane, but it is not clear whether more personnel space is really needed. The following exchange before the House Subcommittee makes the point rather well:

Mr. SIKES. Has the White House formally notified the Department of Defense of the White House requirements for personnel spaces to accommodate NCA advisors and exactly who these advisor personnel would be?

"Admiral JAMES. The White House in the EC–135 has officially notified us, but in the 747, to the best of my knowledge, not yet.

"Mr. SIKES. How do you know then whether or not they need a bigger aircraft?

"Admiral JAMES. The purpose of the airplane is not only to provide the additional room for the National Command Authorities advisors, Mr. Chairman. There are a lot of other reasons why we need the aircraft. But this would provide space, and if the NCAies felt the need for more advisors then there could be some adjustments in the arrangement."

And while the new planes would provide greater endurance than the EC–135, this improvement alone is of questionable value. We have hundreds of tankers capable of conducting air-to-air refueling operations. If our command post aircraft cannot count on the availability of a tanker, it raises grave implications for the pre-launch survivability of our strategic bomber force, which is itself dependent on tanker refueling to carry out its mission.

The Air Force tried one final argument in testimony before the House Subcommittee. It suggested that "the first three aircraft are essential to provide the operational experience needed to properly define the command, control, and communications package to be installed and tested in the fourth aircraft."

Some wild justifications have been offered to Congress for new military programs, but this one stands alone. Will it now become standard operating procedure to begin each new aircraft program by building three airframe to fly around in order to find out what equipment should be installed in the first development prototypes? It seems to me that ground level studies and development work have sufficed for this purpose in the past. They should remain sufficient for the future.

The First Three Aircraft—Hidden Motives. All that the first three aircraft would provide initially is a bit more room and some increased endurance, and it is difficult to believe that the Air Force would really want to buy them solely for that purporse. To look for other motives is an admittedly subjective exercise. Such motives do seem present, however, and they are only thinly veiled.

One such motive, it seems apparent, is to boost employment at The Boeing Company's Seattle plant. Secretary Laird did not deny the point in testimony before the House Subcommittee:

"Mr. MAHON. The President said in his budget statement that the budget was designed to promote employment. How does that philosophy impact on this supplemental request?

"Secretary LAIRD. There certainly will be some impact, Mr. Chairman, I will supply that information for you. That, however, has not been the *overriding* reason for submitting this particular request. . . . The reason we are buying the new aircraft is not *primarily* related to employment" (emphasis added).

The same point surfaced once again:

"Secretary LAIRD. The first four of these 747s are now on the production line at Boeing.

"Mr. MAHON. They are on the production line?

"Secretary LAIRD. They are on the production line.

"Mr. MAHON. And nobody else wants them so we will buy them; is that the point?

"Secretary LAIRD. We can get these programmed.

"Mr. FLOOD. Four or three?

"Secretary LAIRD. Four. They are on the production line. I can't say that buying them will necessarily add to employment immediately. They will add to employment from here on, but these particular ships are already on the production line.

"Mr. MAHON. But usually you have to wait for aircraft of this type because somebody else would want them. They have satisfied their market, and they have four on the production line that they can let you have.

"Secretary LAIRD. We can elbow our way into this production line and we can buy them at $1 million each less this year than we can next year.

"Mr. MAHON. In other words, it is a good market in which to buy, if you are going to buy them.

"Secretary LAIRD. Yes. If you are going to buy them you can buy them for $23 million this year—fiscal year 1972. Next year in fiscal 1973 the aircraft will cost us $24 million."

A second motive, in all likelihood, is Air Force concern for their *own* command post needs. For in addition to the three command post aircraft stationed at Andrews Air Force base for Presidential use, the Air Force itself has in its present inventory some 45 EC–135 command post aircraft. As Congressman Sikes noted during the House Subcommittee's hearings:

"From fiscal year 1962 through 1971, we have spent about $538 million for airborne command posts for CINCPAC, CINCSAC, and CINCEUR. CINCSAC alone has 29 EC–135 aircraft serving as airborne command posts, auxiliary command posts, communication relay aircraft, and airborne launch control centers."

By purchasing three aircraft now to meet an alleged interim Presidential need, after which these aircraft (and the fourth aircraft prototype) would be turned over to SAC, the Air Force could hope to initiate replacement of its own command post fleet without having to seek direct recognition of a replacement need. And once that need was indirectly recognized, it might be possible to undertake a replacement program much more ambitious than the four aircraft program implicit in present AABNCP plans.

It might be difficult to win direct approval for such a replacement program. For one thing, present Air Force command posts are only ten years old. In addition, it seems unlikely that all Air Force planes would have need of the massive equipment and large staffs required by the President as Commander-in-Chief. Finally, Air Force interest in command post aircraft to manage its bomber and missile forces stands in marked contrast to Navy interest in command post aircraft to control our sea-based missiles. Once again the House Subcommittee hearings amply demonstrate the point:

"Mr. SIKES. Does the Navy have command post type aircraft for their Polaris/Poseidon submarine fleet similar to those of CINCSAC?

"Admiral JAMES. No, not similar to CINCSAC. They do have radio relay aircraft that are called TACAMO 130's. They are not equipped the same way, but they do provide low-frequency radio communications to the submerged submarines.

"Mr. SIKES. Then you are saying that, in substance, we do have the equivalent of airborne command posts for our sea-based strategic missile force?

"Admiral JAMES. No, that could not be classified as a command post. . . .

"Mr. MURPHY. If our strategic deterrent force is important and SAC considers it imperative to have an airborne command post to control its Minuteman missiles, it is difficult to understand why the Navy did not consider this an important factor and also have an airborne command post to control 656 sea-based strategic missiles.

"Admiral JAMES. They . . . have been trying to get the assets to put a command post airborne."

If the Navy has not been able to find such assets ten years after the first SAC command post aircraft were purchased, it seems difficult to believe that the Navy views such aircraft as first priority requirement.

The Fourth Aircraft Prototype. Since three 747s now would provide little in the way of improved capabilities, and since their purchase seems motivated by slightly suspect factors, it might seem advisable to initiate the new command post program with work on the fourth aircraft prototype. This effort alone, the House Subcommittee was told, would cost $116 million.

There are good reasons, however, why this approach, too, should be rejected.

First, it is not clear that a 747 is the best air frame choice available to the Air Force. Three other candidates—the DC–10, the L–1011, and even the C–5A—should also be considered.

The DC–10 and L–1011 have only 2,500 square feet of floor space, compared to 3,500 for the 747. But this is still a significant increase over the 880 square feet available in the EC–135. Moreover, it is more space than present plans require. As Admiral James told the House Subcommittee: "The total [space] requirements that have been identified are 1,800 square feet."

This itself would allow considerable extra room in a DC–10 or L–1011 to accommodate new requirements uncovered in the future. And these planes, it should be remembered, are roughly $6 million less per copy than 747s to purchase. They would also have proportionately lower operating costs over the course of their lifetime.

The 747s would have an endurance advantage—16 hours unrefueled compared to slightly over ten hours for the DC–10 and L–1011. But the significance of this advantage has not been clearly shown. And if it is key, consideration might be given to converting three C–5A aircraft, which also have a 16 hour unrefueled endurance, to command post use. New C–5A purchases would be prohibitively expensive, but it is unlikely that our strategic airlift capacity would suffer greatly if only three of the present 81 aircraft were diverted to this role.

The Air Force, then, has not demonstrated that new 747s are clearly the best choice for the new command post mission. Yet purchase of a 747 to begin prototype work would commit us to use of that aircraft in a new command post program.

Actually, the whole AABNCP program has been put together so hastily that the purchase of any aircraft for operational prototype work is not advisable at this time. Consider for a moment the present status of work in several important areas. Again the House Subcommittee hearings will provide the main source of evidence.

It was noted earlier that the White House has never informed the Air Force who would use the additional personnel spaces available on the 747. White House involvement in this project has been very small indeed, as the following exchange indicates:

"Mr. MURPHY. Admiral, before any determination is made as to what a President might need, it would appear that a study should have been made in the past as to exactly what previous Presidents have done in times of tension, how many advisory people they actually utilized as opposed to how many were made available to them, in order to size an aircraft for this purpose. Have any studies of this nature been made and, if so, what were the results of these past experiences?

"Admiral JAMES. I am not aware of any specific studies under the various circumstances, but this particular number was arrived at by the JCS. . . .

"Mr. MURPHY. This is pretty much a military determination, then. . . ."

Some Subcommittee members expressed doubt about the whole command post rationale:

"Mr. SIKES. In an open society such as ours, the President cannot leave the White House . . . during times of tension without the press, the country, and the world knowing about it. . . . The fact that the President would fly off in an airborne command post could create terror in the minds of the public, and even panic in the streets of this country. Have you given consideration to that . . .?

"This past week, Secretary Laird testified that the 747 aircraft will have space for 50 to 100 National Command Authorities advisors in addition to about 40 battle staff personnel—it does not say a thing here about the press contingent.

"Mr. MINSHALL. The only thing he needs is Presidential Advisor Henry A. Kissinger. A 3-place chopper would be sufficient.

I cannot agree that a larger new command post should be ruled out at this time. But I do think that before it is funded greater interest should be expressed by the White House in what is meant to be a Presidential plane.

House Subcommittee Chairman Mahon also raised various questions about the compatibility of communications gear earmarked for the new command post with communications at our ground-based command and control center. The responses again showed lack of thorough planning:

"Consideration is now being given to compatibility needs between the airborne and ground processing centers. . . . All of the specific links have not yet been designated, but this will all be accomplished well before the date of the full configuration. . . . Although . . . the specific language to be used for the AABNCP hasn't been selected yet, it is now considered that JOVIAL will be best suited to the job."

III. WHAT SHOULD BE DONE?

The AABNCP program should not be approved by the Congress—not the first three interim aircraft, not the fourth aircraft prototype, and most assuredly not the fifth and sixth aircraft, funds for which are also provided in the fiscal 1973 budget.

What, then, should be done?

First, the Congress should inform the Administration that no funding for an AABNCP program will be approved until further studies and more detailed planning have been conducted under the direction of the National Security Council. If new command post aircraft are needed for Presidential use, the existence of this need should be certified and steps worked out to meet it, not by the Department of Defense, but by the White House itself.

Second, Congress should inform the Air Force that any Presidential command post program subsequently approved will be limited to the number of aircraft, including prototypes, certified as necessary for White House use. Any Air Force program, to replace its own EC–135 command post aircraft should be presented directly to the Congress and justified on its own merits.

Third, immediate Congressional approval should be given to pending Air Force requests for related programs independent of, but of potential benefit to, a later AABNCP program. This would include R&D requests for a new simulator for EMP tests of all our strategic aircraft.

Mr. President, no Senator would want to impede the ability of a President to exercise his responsibilities in the event of a nuclear emergency. But all Senators should be concerned lest resources are squandered, and suspect motives served, in the name of this important goal.

Mr. PROXMIRE. Mr. President, I yield the floor and suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. STENNIS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

Mr. STENNIS. Mr. President, I now wish to call the attention of the Senator from Minnesota to what I would like to say. Insofar as I know as manager of the bill, no one else has an amendment and no one else wants to speak, today. I have asked that the assistant majority leader, the Senator from West Virginia (Mr. ROBERT C. BYRD) be notified. We want unanimous consent now to take down this bill, with the understanding that if anyone comes in before we adjourn and wishes to take up the matter I will return to the Chamber.

Mr. President, I leave the Chamber in charge of the Senator from Minnesota.

Mr. HUMPHREY. I thank the Senator for his trust and confidence.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative cerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

Mr. ROBERT C. BYRD. Mr. President, I thank the Chair and all Senators for their indulgence. I regret to have delayed the Senate.

ORDER FOR TRANSACTION OF ROUTINE MORNING BUSINESS AND LAYING BEFORE THE SENATE THE UNFINISHED BUSINESS ON MONDAY, JULY 31, 1972

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that on Monday, immediately following the recognition of the two leaders under the standing order, there be a period for the transaction of routine morning business, not to extend beyond 10:30 a.m., with statement limited therein to 3 minutes, at the conclusion of which the Chair lay before the Senate the unfinished business.

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

PROGRAM

Mr. ROBERT C. BYRD. Mr. President, the program for Monday and the days immediately ahead is as follows:

The Senate will convene at 10 a.m. on Monday.

Following the two leaders or their designees, there will be a period for the transaction of routine morning business, not to extend beyond 10:30 a.m., with statements limited therein to 3 minutes, at the conclusion of which the Chair will lay before the Senate the unfinished business, H.R. 15495, the military procurement bill.

The distinguished Senator from Washington (Mr. JACKSON) will be recognized, upon the laying before the Senate of the unfinished business on Monday, for the purpose of calling up his amendment. He will be followed by the recognition of the Senator from California (Mr. CRANSTON) for the purpose of calling up his amendment, following which the Senator from Indiana (Mr. HARTKE) will be recognized for the purpose of calling up his amendment.

Owing to the fact that several Senators will be attending the funeral of our late departed colleague, Senator ELLENDER, the aforementioned amendments with time limitations thereon, and although resulting in yea-and-nay votes, will not be finally disposed of until the return of the funeral delegation from Louisiana in the late afternoon of Monday; but following the debate on the three amendments, as stated, the Senate will go on to a second track item. I would say at the moment that it will probably be the export control bill.

Upon return of the distinguished majority leader and other Senators from Louisiana, the Senate will resume consideration of the unfinished business, and the Jackson amendment, the Cranston amendment, and the Hartke amendment, in that order, will be taken up, with one-half hour of additional time on each, preceding a yea and nay vote on each amendment, after which, depending upon the hour, the Senate will either return to the consideration of the second track item or adjourn.

On Tuesday at 10 a.m. the Senate will resume the consideration of the unfinished business, the military procurement bill, and the following amendments will be considered in the order stated and in accordance with the stated time limitations thereon, with yea-and-nay votes occurring: An amendment by Mr. PROXMIRE and Mr. MCGOVERN, 3 hours; an amendment by Mr. HATFIELD, 3 hours; an amendment by Mr. TUNNEY, 1½ hours; an amendment by Mr. KENNEDY, 1 hour.

The Senate will then go to a second track item, presumably the no-fault insurance bill in the event the export control bill has been disposed of prior thereto.

On Wednesday at 10 o'clock a.m., the Senate will resume consideration of the unfinished business, the military procurement bill, with debate on the following amendments to occur in the order stated and under time limitations as stated:

Mr. CRANSTON's Vietnam amendment, 4 hours.

Mr. BROOKE's amendment, 2 hours.

Yea-and-nay votes will occur on those amendments, but in inverse order, the vote to occur first on the Brooke amendment.

A yea-and-nay vote, under the time agreement, will occur on the final passage of the Military Procurement bill no later than 6 p.m. on Wednesday.

Depending upon the hour at which the military procurement bill is disposed of on Wednesday, the Senate would then go to the second track item—again, no-fault insurance.

On Thursday at 10:30 a.m., the Senate will proceed on the first track to the consideration of the SALT treaty, with the second track item on Thursday being no-fault insurance if not disposed of prior to that time.

Yea-and-nay votes can be expected on Thursday.

As to Friday and Saturday, the situation is not yet clear, but by way of general information for Senators, that they might be somewhat guided thereby, the SALT treaty will remain the unfinished business in executive session un-

til disposed of, and it will then be followed by the interim agreement on offensive weapons as the first track item, and that will be followed by revenue sharing as a first track item. No-fault insurance, once begun as a second track item, will be continued as a second track item until disposed of.

The leadership, when the necessity arises, may, of course, elect to go to third track items on any day.

In summation, Mr. President, there will be yea-and-nay votes on Monday beginning after the delegation has returned from its sad mission to Louisiana.

There will be yea-and-nay votes on Tuesday.

There will be yea-and-nay votes on each remaining day of next week, including Saturday.

There will be lengthy sessions daily.

Mr. MATHIAS. Mr. President, will the Senator yield for an inquiry?

Mr. ROBERT C. BYRD. I gladly yield to the Senator from Maryland.

Mr. MATHIAS. In outlining the program, the Senator stated the time limitation on the Cranston amendment and on the Brooke amendment, and stated that the final vote on the bill would occur, I believe, not later than 6 o'clock on Wednesday.

Mr. ROBERT C. BYRD. The Senator is correct.

Mr. MATHIAS. What would be the situation if there were amendments, perhaps amendments by way of substitutes for either of those amendments?

Mr. ROBERT C. BYRD. Amendments by way of substitute, amendments to amendments, and amendments in the second degree will be in order with a time limitation of 30 minutes. If the time for amendments is exhausted, Senators in control of time on the bill can yield additional time therefrom, and there will be ample time, I would say, to the distinguished Senator from Maryland, allowing for the time that has been allotted to each amendment, for additional amendments as well as the disposition of those two amendments on Wednesday.

There will be ample time afforded on Wednesday, I believe, for the calling up of amendments in the first degree with a time limitation thereon of 1 hour. Upon the reaching of the hour of 6 o'clock, if amendments are still pending, votes will occur on those amendments, but with no further time for debate allotted.

Mr. MATHIAS. I thank the Senator.

ADJOURNMENT UNTIL 10 A.M. ON MONDAY

Mr. ROBERT C. BYRD. 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 a.m., on Monday next.

The motion was agreed to, and at 2:45 p.m., the Senate adjourned until Monday, July 31, 1972, at 10 a.m.

CONFIRMATIONS

Executive nominations confirmed by the Senate July 28, 1972:

DEPARTMENT OF JUSTICE

Robert E. J. Curran, of Pennsylvania, to be U.S. attorney for the eastern district of Pennsylvania for the term of 4 years.

Carl E. Hirshman, of New Jersey, to be U.S. marshal for the district of New Jersey for the term of 4 years.

EXTENSIONS OF REMARKS

GEORGE M. MILLER

HON. LAWRENCE J. HOGAN

OF MARYLAND

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 27, 1972

Mr. HOGAN. Mr. Speaker, the city of Takoma Park, Md., recently lost a truly dedicated public servant. He was George M. Miller, mayor of the city for 18 years and a city councilman before that.

During his 10 consecutive years of office, Mayor Miller made many significant contributions to the city of 18,500. As mayor he gave an enormous amount of time and effort to the betterment of Takoma Park. Among other achievements, he was a leader in getting the $3 million Middle School built in Takoma Park, and he led the fight to expand Montgomery College.

His community activities were numerous and as outstanding as his professional and political achievements. Shortly after Mayor Miller's passing, the Washington Star paid tribute to this devoted public servant, and I now insert the article in the RECORD:

GEORGE M. MILLER DIES; MAYOR OF TAKOMA PARK

(By Richard Slusser)

George M. Miller, 61, who was elected in March to his 10th consecutive term as mayor of Takoma Park, died of cancer yesterday in Holy Cross Hospital. He lived on Hancock Avenue in Takoma Park.

Mr. Miller served on the Takoma Park City Council for a year before his first election as mayor in 1954. Mr. Miller's full-time job was chief of the accounts section of the Bureau of Reclamation, Department of Interior.

Usually elected without opposition, Mr. Miller ran on a ticket with seven candidates for city council in the March election and defeated a slate called the Takoma Limited Committee.

STANDS CRITICIZED

The opposition criticized Mayor Miller's stands on the impact of Metro subway construction and the expansion of Montgomery College, both of which were seen as a threat to a number of Takoma Park homes.

Mr. Miller said that the council acted to allow expansion of the college to prevent it from leaving the city and he asserted that Metro construction decisions were made in open sessions. His group, the Citizens for Good Government, campaigned on a promise to ease the city's property tax.

In campaign literature for his last election, Mr. Miller wrote that if there is "a single feature of public life in Takoma Park that clearly sets the city apart from surrounding areas, it is the spirit of community seen in the . . . efforts of the many citizens representing dozens of community groups. . . ." The Takoma Park population is about 18,500.

As mayor, Mr. Miller opposed the location of the controversial North Central Freeway through Takoma Park, one of the largest municipalities in Maryland. He also led a campaign for Montgomery County to build the $3 million Middle School in Takoma Park.

Mr. Miller, who was born in Laurel, had lived in Takoma Park since 1939. He was a graduate of St. Johns High School and Benjamin Franklin School of Accounting in Washington. During World War II he served in the Army.

Before joining the Bureau of Reclamation he was treasurer and general manager of the hardware and roofing firm of W. S. Jenks & Son, Inc.

Mr. Miller was a member of the Takoma Park Lions Club, Rosensteel Council of the Knights of Columbus, Our Lady of Sorrows Catholic Church and the Holy Name Society. He was a director of the Takoma Recreation Council.

He was active in the National League of Cities and was vice president and treasurer of the Metropolitan Council of Governments. He also was a president of the Maryland Municipal League and chairman of the Maryland Technical Advisory Service.

LAUDED FOR SERVICE

Hyattsville Mayor Charles L. Armentrout said Mr. Miller was a distinguished mayor of Takoma Park. He apparently did a good job because the people . . . recognized that in re-electing him."

The Takoma Park City Council will elect Mr. Miller's successor. Councilman John Roth has been taking Mr. Miller's place on a pro tem basis.

Mr. Miller leaves his wife, Charlotte K.; two sons, Charles and George Jr. of Silver Spring; a daughter, Susan and a sister, Mrs. Arthur B. Brown of Silver Spring.

ORDER OF AHEPA

HON. RICHARD S. SCHWEIKER

OF PENNSYLVANIA

IN THE SENATE OF THE UNITED STATES

Friday, July 28, 1972

Mr. SCHWEIKER. Mr. President, Order of Ahepa, the American Hellenic Education Progressive Association, celebrates its golden anniversary this week. This national fraternal organization with 27 local chapters in Pennsylvania has compiled a distinguished record of service to the Nation and to the various communities in which Order of Ahepa chapters are located.

The community interests of the Order of Ahepa are noteworthy. They include:

To promote loyalty to the United States of America;

To instruct its members in the tenets and fundamental principles of good government;

To instill in its members appreciation of the privileges of citizenship, and the inalienable rights of all citizens;

To encourage its members to actively participate in political, civil, social and commercial fields of human endeavor;

To promote a better understanding of the attributes and ideals of Hellenic Culture; and

To champion the cause of education, culture and learning.

Mr. President, Pennsylvania is proud