Incidentally, your conference may want to explore the question whether fairness to politicians and fairness to the public are necessarily one and the same. I may be prejudiced and, therefore, not a good judge. As George Bernard Shaw has remarked: "The love of fairplay is a spectator's virtue, not a principal's." I can assure you, however, that politicians, as a rule may object to having their "rights" of answering broadcast editorials depend on the discretion of broadcasters.

Congressman Moss' bill constitutes an attempt in setting up some ground rules in the limited area of editorializing with regard to political candidates. It would make applicable the equal opportunity provisions of section 315 of the Communications Act of 1934 to editorializing by broadcast licensees for or against political candidates.

As was testified in the course of hearings before our subcommittee there are some difficulties inherent in the approach proposed by the bill. These difficulties, however, can be corrected and our committee will have occasion to consider the bill after the hearings have been completed. Whether or not the bill becomes law, however, Congressman Moss ought to be congratulated on his efforts to place before the public a concrete proposal designed to deal with one important aspect of broadcast editorializing.

While it may be difficult to lay down hard and fast rules with regard to broadcast editorializing we must nevertheless strive to do so. The very fact that the Georgia Broadcasters have called this conference seems proof to me that you agree with that proposition. Discussion of the problems in this area is wholesome and constitutes a valuable and important aspect of our democratic processes.

Let me attempt to make some observations which I hope will focus attention on some aspects of editorializing which I happen to believe are of transcending importance.

Broadcast editorializing is but one aspect of broadcast programing. Regulation of broadcast programing is a most difficult and elusive subject. This is true of regulation by government as well as self-regulation by industry through voluntary codes, etc.

Since all broadcasters require a government license before they are permitted to engage in broadcasting, there is a natural tendency to base regulations—governmental as well as private—on the fallacious assumption that broadcasters are pretty uniform when it comes to aspirations, interests, capacity, outlook, and other human traits. This assumption is factually incorrect and as supposition it is not in the public interest.

If there has been a regrettable tendency towards uniformity among broadcasters, this tendency ought to be counteracted to the utmost, and especially by organizations which purport to represent broadcasters.

I wonder whether many persons would suggest that newspapers are pretty uniform or that magazines are, and that standards with regard to their contents could be established by establishing minimum standards for their personnel or facilities.

Similarly, would it not be inappropriate to attempt the establishment of standards for broadcast programs, including broadcast editorials, by establishing minimum standards with regard to personnel or facilities?

The NAB committee on editorializing seeks to encourage editorializing as broadcasters become—and I quote—"properly equipped to perform the editorial function with the highest degree of professional skill and integrity." Chairman Henry stated before our subcommittee—and I quote: "We have cautioned that the licensee should not do so [namely, editorializing] if he is not prepared to act fairly and to employ an adequate staff as the foundation for meaningful and intelligent editorialization."

Are the NAB and FCC getting ready to establish minimum standards with respect to staffing? I hope not. I doubt that meaningful minimum standards in this respect can be established for all broadcasters.

Please do not misunderstand me. I am not trying to say that there are not and should not be standards of procedure to be followed by all broadcasters with regard to broadcast editorializing in order to assure performance in the public interest. But is exclusive or primary focusing on the question of staffing going to be helpful?

For example, I submit that a radio broadcaster who operates an electronic juke box and who does not give any time for the discussion of public issues either by political candidates or by spokesmen for different points of view on such issues, has not equipped himself in any sense of the word to editorialize on such issues or candidates even if he should hire a qualified person to write the editorials for him.

I submit that the right to editorialize must be earned and this right should be properly exercised only within the context of other exposures of the issues or the candidates over the facilities of the station.

Furthermore, your conference may well desire to discuss the application of the principles underlying section 317 of the Communications Act to broadcast editorializing—the overt type of licensee editorializing as well as other types of editorializing.

Section 317 provides substantially that all matter broadcast by any radio station for which any money or other valuable consideration is directly or indirectly paid or promised to the station by any person shall at the time the matter is so broadcast be announced as paid for or furnished by such person.

The broad principle on which this statutory provision is based is that the listeners or viewers have the right to expect that matters broadcast are broadcast because of the independent editorial judgment of the broadcast licensee rather than because of some consideration paid or promised to the licensee for broadcasting this matter. Listener and viewer reliance on the broadcaster's editorial integrity is an important public interest factor which is entitled to protection.

Of course, section 317 would be applicable if a broadcaster were to broadcast an editorial for which he receives compensation from any other person. However, should not the listeners and viewers also be apprised of the fact, if such fact happens to be the case, that a particular editorial was prepared by a source not controlled by the licensee himself; such as, for example, an editorial service to which the broadcaster happens to subscribe? Or that the editorial was furnished free of charge by some organization or another?

The existence of editorial services is a well known fact and many newspapers avail themselves of these services. True enough, no newspaper is required to disclose to its readers the fact that some or most of its editorials are derived from such a source. Many newspapers, however, do so anyway.

I would like to leave with you, however, the question whether the public interest does not require such disclosure in the case of radio and television broadcast editorials.

Our committee's payola and ratings investigation have demonstrated the tremendous power which organizations not licensed by our Government, such as phonograph records manufacturers and distributors, and rating services have exercised over the programs broadcast by many licensees. If, unbeknown to viewers and listeners, persons not controlled by individual licensees, such as editorial services were to achieve similar control over broadcast editorializing, the potential harm to the public could be infinitely greater than it has been in these other situations.

Therefore, as the practice of editorializing grows, in order to forestall any harm to the public should we not require certain disclosures with regard to the sources of editorials and, perhaps, other circumstances which surround the origin of editorials?

Questions of how the public interest can best be protected in the area of broadcast editorializing are just beginning to be asked. In no area of broadcast programing is the public interest more difficult to protect. In no area will protection be needed more as the practice of editorializing assumes greater prevalence.

I am glad that you are aware of the urgent need to discuss these problems, and I hope that I have left with you a little food for thought for the impending dialog in this important area.

HOUSE OF REPRESENTATIVES

THURSDAY, AUGUST 1, 1963

The House met at 11 o'clock a.m.

The Chaplain, Rev. Bernard Braskamp, D.D., offered the following prayer:

Joel 2: 21: *Fear not, O land; be glad and rejoice: for the Lord will do great things.*

God of all majesty and mercy, create within us during this moment of prayer, those longings and desires which Thou dost delight to satisfy.

Grant that integrity of character, devotion to duty, and reverence for Thy law may be the cardinal virtues whereby we are known among our fellow men.

May we listen in on the life of struggling humanity with those noble attitudes and feelings of sympathy and charity, of kindness and good will.

Show us how we may encourage the hearts and strengthen the hands of our Members of Congress who are safeguarding the good name of our beloved country and extending its influence as a mighty power in establishing universal peace.

Help us to lay hold of Thy divine power and gird us with that indomitable faith which will enable us to meet our adversaries fearlessly and valiantly.

Hear us in the name of our blessed Lord. Amen.

THE JOURNAL

The Journal of the proceedings of yesterday was read and approved.

COMMITTEE ON MERCHANT MARINE AND FISHERIES

Mr. ALBERT. Mr. Speaker, on behalf of the gentleman from North Carolina

AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

[Mr. BONNER], I ask unanimous consent that the Committee on Merchant Marine and Fisheries may be permitted to sit during general debate today.

The SPEAKER. Is there objection to the request of the gentleman from Oklahoma?

Mr. HALEY. Mr. Speaker, I object.

SUBCOMMITTEE NO. 5 OF THE COMMITTEE ON THE JUDICIARY

Mr. ALBERT. Mr. Speaker, on behalf of the gentleman from New York [Mr. CELLER], I ask unanimous consent that Subcommittee No. 5 of the Committee on the Judiciary may be permitted to sit during general debate today.

The SPEAKER. Is there objection to the request of the gentleman from Oklahoma?

Mr. HALEY. Mr. Speaker, I object.

CONDITIONS OF BUSINESS SHOWN TO BE IMPROVING

Mr. VANIK. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from Ohio?

There was no objection.

Mr. VANIK. Mr. Speaker, I was pleased to note in the Wall Street Journal of today the report that the profits of 496 firms in the second quarter of 1963 rose almost 16 percent from those of the 1962 period.

Quite obviously, the spurt in corporate income is the proximate result of the administration's revision of the depreciation schedule last year coupled with the action of Congress in authorizing the 7-percent investment credit.

It is about time that the business community of America recognize the tremendous effort that President Kennedy and this administration has made to improve the conditions of business. By the same token, the business community should recognize the great need for cooperation in important administrative programs to bring about full employment and meet the problems of distressed areas and distressed people throughout the country.

DISTRICT OF COLUMBIA, ANNUAL PAYMENT BY THE UNITED STATES, INCREASE

Mr. McMILLAN. Mr. Speaker, I ask unanimous consent to take from the Speaker's desk the bill (H.R. 6177) District of Columbia, annual payment by the United States, increase, with Senate amendments thereto, disagree to the Senate amendments, and request a conference with the Senate.

The SPEAKER. Is there objection to the request of the gentleman from South Carolina?

The Chair hears none and appoints the following conferees: Messrs. WHITENER, DOWDY, HAGAN of Georgia, BROYHILL of Virginia, HARSHA, and HORTON.

CALL OF THE HOUSE

Mr. PELLY. Mr. Speaker, I make the point of order that a quorum is not present.

The SPEAKER. The gentleman from Washington makes a point of order that a quorum is not present, and evidently a quorum is not present.

Mr. ALBERT. Mr. Speaker, I move a call of the House.

A call of the House was ordered.

The Clerk called the roll, and the following Members failed to answer to their names:

[Roll No. 109]

Bass	Evins	Nedzi
Battin	Flynt	O'Brien, Ill.
Berry	Fulton, Tenn.	Pilcher
Blatnik	Gathings	Roberts, Ala.
Brotzman	Grant	Robison
Broyhill, N.C.	Griffin	Shelley
Buckley	Harsha	Smith, Iowa
Celler	Healey	Staebler
Chelf	Huddleston	Steed
Clark	Johnson, Calif.	Thornberry
Cramer	Jones, Mo.	Vinson
Davis, Tenn.	Kee	Whitener
Dent	Macdonald	Whitten
Dingell	Miller, N.Y.	Winstead

The SPEAKER. On this rollcall 387 Members have answered to their names, a quorum.

By unanimous consent, further proceedings under the call were dispensed with.

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

Mr. HARRIS. Mr. Speaker, I ask unanimous consent that the Committee on Interstate and Foreign Commerce may be permitted to sit during general debate today.

The SPEAKER. Is there objection to the request of the gentleman from Arkansas?

There was no objection.

SUBCOMMITTEE ON CONSUMER AFFAIRS

Mrs. SULLIVAN. Mr. Speaker, I ask unanimous consent that the Subcommittee on Consumer Affairs of the Committee on Banking and Currency may be allowed to sit in executive session today during the debate on this bill.

The SPEAKER. Is there objection to the request of the gentlewoman from Missouri?

There was no objection.

SUBCOMMITTEE ON MANPOWER

Mr. HOLLAND. Mr. Speaker, I ask unanimous consent that the Subcommittee on Manpower of the Committee on Education and Labor be permitted to sit today during general debate on this bill.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

APPOINTMENT OF POSTMASTERS

Mrs. GREEN of Oregon. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentlewoman from Oregon?

There was no objection.

Mrs. GREEN of Oregon. For some time, Mr. Speaker, I have been concerned with the way in which our postmasters are appointed. This concern has been prompted by a number of factors. The postmaster holds a most responsible position in every hamlet, town, and city; it seems to me that the appointment and the resulting work of the postmaster should be free of any political influences—divorced from the patronage system.

I, therefore, introduce legislation, Mr. Speaker, which would provide for the appointment by the Postmaster General of postmasters at first-, second-, and third-class post offices through competitive civil service.

This legislation would properly place the appointment of postmasters in the selective civil service and away from the political influences of the past, and in addition would eliminate a burdensome job, one that we are sure is all too familiar to the Members of this Congress. This bill would terminate the influence of the so-called congressional advisory system. We are asked to recommend applicants that we may not even know, and in effect we disqualify persons whose experience and qualifications are too often not even considered. It seems to me that advancement and appointment based on merit would also raise the morale of personnel and result in strengthening the postal service.

INTERSTATE SHIPMENT OF KREBIOZEN

Mr. LINDSAY. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. LINDSAY. Mr. Speaker, for at least 13 years the substance Krebiozen has been produced as an intended aid in the treatment of cancer. Its value in this treatment is and has been in dispute: but the nontoxic nature of the drug does not appear to be in dispute. On July 24 I submitted House Resolution 573, to provide a fair, impartial, and controlled test of the drug.

A recent incident in the dispute around the merits of this drug has induced Dr. Durovic, its proponent, to withdraw his application for experimental status from the Food and Drug Administration. The automatic consequence of the termination of this status is that interstate shipment of Krebiozen is thereafter illegal.

In the meantime many cancer patients undergoing treatment by Krebiozen are passionately convinced that their lives are contingent on further procurement of the drug. These people, whatever the merits of the dispute, are taking the con-

sequences of the change in status of the drug, and are deeply upset at being deprived of it.

Therefore I am introducing a resolution which would allow the interim interstate shipment of Krebiozen for the treatment of any patient now being treated with the drug, or for any patient who is in the terminal stages of cancer, until a fair and scientific test of Krebiozen has been carried out.

BAD LEGISLATION

Mr. GONZALEZ. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. GONZALEZ. Mr. Speaker, yesterday the Senate had before it S. 1703, a bill that would extend the bracero program for 1 year. The distinguished Senator from Wisconsin, Mr. PROXMIRE, had some things to say about the bracero program.

The bill, he noted, would be very bad legislation. It would be bad for the Mexicans, who are brought here as peons, and separated from their families for months. It would be bad for American farm laborers, who are the most depressed people in the country. They are people who earned last year an average of $900 per worker.

I have no doubt that the Senator will have more to say about extending Public Law 78.

AUTHORIZING APPROPRIATIONS TO THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Mr. DELANEY. Mr. Speaker, by direction of the Committee on Rules I call up House Resolution 467 and ask for its immediate consideration.

The Clerk read as follows:

Resolved, That upon the adoption of this resolution it shall be in order to move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 7500) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and administrative operations; and for other purposes. After general debate, which shall be confined to the bill and shall continue not to exceed five hours, to be equally divided and controlled by the chairman and ranking minority member of the Committee on Science and Astronautics, the bill shall be read for amendment under the five-minute rule. At the conclusion of the consideration of the bill for amendment, the Committee shall rise and report the bill to the House with such amendments as may have been adopted, and the previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit.

Mr. DELANEY. Mr. Speaker, I yield 30 minutes to the gentlewoman from New York [Mrs. ST. GEORGE]; and pending that I yield myself such time as I may consume.

Mr. Speaker, this Resolution 467 provides for the consideration of H.R. 7500, a bill to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and administrative operations; and for other purposes.

The resolution provides for an open rule with 5 hours of general debate.

The purpose of H.R. 7500 is to authorize appropriations totaling $5,238,119,400 to the National Aeronautics and Space Administration for the fiscal year 1964. The money is allotted as follows:

Research and development, $4,037,575,000.

Construction of facilities, $692,359,400.

Administrative operations, $508,185,000.

This means a total expenditure of $5,238,119,400.

Since this bill came out of the committee unanimously and was unanimously approved by the Committee on Rules, I urge the adoption of the rule.

Mrs. ST. GEORGE. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, House Resolution 467 makes in order the consideration of H.R. 7500.

I think that we have rarely had a bill that is more important and probably less understood than H.R. 7500. It is a bill that cannot properly be understood by any but a very advanced scientist. I do not think we have any very advanced scientists in the House of Representatives.

It has been admitted by all those who have testified on this bill that it is something that we have to take on faith. Mr. Speaker, in the past we have had to take many things on faith. I have no doubt at all that when the first man invented the wheel his neighbors all stood around and said, "What a very foolish thing this is, and what an awful lot of time he has wasted."

I know for a positive fact that when the Wrights first flew their rather miserable-looking little crate, because that is all it was, and it is now down in the Smithsonian, people said, "What a foolish thing that is. Why did these two grown men waste all their time and their friends' money on it?"

We do not know today what is going to come from the probe of outer space. It may bring us untold blessings. On the other hand, it may prove that it can accomplish very little. People say, "Why send a man to the moon?" There is absolutely no guarantee we will send a man to the moon. We are going to send instruments. We are going to try to find out. We are going to probe outer space. I believe this is going to be useful.

Another thing I like about this bill and that I commend to the House is that all of this is going to be in the nature of the advancement of science and also the advancement of the peaceful uses thereof. We do not talk very much in this bill about defense or the warlike advantages to be gained therefrom. We do not talk about keeping up with the Russians, which to me is always a little bit like keeping up with the Joneses. We even have considered that we may pool some of our resources and scientific knowledge with them.

The one thing we can understand about this bill, and it has already been alluded to, is the price tag, and it is very high. We are asked in this bill for an authorization to spend, to appropriate, $5,238,119,400.

That is a great deal of money, but we have authorized and appropriated a great deal of money for other things without so much as a tremor. We have appropriated vast sums over the years for foreign aid so that at the present time, I believe, the grand total practically hits $100 billion. That money has been spent abroad. It has been spent in other countries. It has done a great deal of good but it has been an outflow of money. I would like to call your attention to the fact that the money involved in this bill will be spent in the United States, in wages, in services, in buildings—right here in our own country; and that only 2 percent of this vast amount will be spent possibly abroad in the various tracking centers that will be needed.

Mr. Speaker, I commend this legislation to the House and I trust that the rule will be unanimously granted and that after due deliberation—and I am thankful that the Committee on Rules has given all of 5 hours because even 25 hours would not be enough to describe all that is in this bill—the House will pass the bill by a sizable vote.

There are two schools of thought, and I realize that, and both have their virtues. But I still think this is a great measure and that in the generations to come people may look back on this day and say, "They wrought well."

Mr. Speaker, I reserve the balance of my time.

Mr. DELANEY. Mr. Speaker, I yield such time as he may require to the gentleman from Texas [Mr. TEAGUE].

Mr. TEAGUE of Texas. Mr. Speaker, I ask unanimous consent to extend my remarks at this point.

The SPEAKER. Is there objection to the request of the gentleman from Texas?

There was no objection.

PERMISSION FOR COMMITTEE TO USE EXHIBITS AND MODELS ON THE FLOOR

Mr. TEAGUE of Texas. Mr. Speaker, I ask unanimous consent that the committee may be permitted to use certain models and exhibits on the floor this afternoon to better present the information that we will try to present to the House.

The SPEAKER. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. TEAGUE of Texas. Mr. Speaker, we are all aware of the growing wave of questions, in Congress and out of Congress, concerning the value of our pursuing the program to put a human being on the moon. Many Americans wonder whether victory in the race for the moon will be worth the $20 billion

or so that the effort will cost. There have been many instances in which thoughtful men have wondered whether this vast sum of money could not be better spent on earth—on better housing, food, education, welfare, roads, defense, or what have you.

I think it can be fairly said that, all during my career in the Congress, I have never been extravagant with public funds. There are many distinguished Members of this body who have fought hard and consistently against any and all attempts to spend appropriations foolishly. My record shows that during the 17 years I have been in Congress, I have always been lined up with the anti-spending bloc.

And yet, it is my firm and unshakable opinion that we must continue to work and plan toward placing a man on the moon. We must continue the race—and we must win it.

The cost is secondary in this case. Naturally, as chairman of the Subcommittee on Manned Space Flight I intend to battle, as best I can, against any tendency toward wastefulness in this program. All the members of the Committee on Science and Astronautics are equally determined to cut costs wherever possible. But I feel very strongly that we must spend every dollar that is needed to achieve victory in space. We cannot afford to lose.

I quite realize that there are some highly respected persons—some of them scientists—who oppose this venture and claim that the results will not be worth the effort.

I disagree entirely.

I do not favor the program because it is a glamorous technological exercise, or simply because it would flatter our vanity to beat the Russians at the space game. There would be no excuse whatsoever for such a frivolous expenditure of the taxpayers' money.

No, Mr. Speaker, I am heartily and completely in favor of this program because it is an essential part—but only one part—of our entire space program.

Because the idea of putting human beings on the moon is so glamorous, too many people think of it as an entire program in itself. This is wrong. Our goal is to be first in every area of space research, development, and exploration. Our goal is to be the leader in space, just as we have always been on land, in the air, and on and under the sea.

As Vice President LYNDON B. JOHNSON said in a recent speech:

> Space is clearly the great breakthrough of human knowledge—for centuries to come. We do not know—and the Soviets do not know—what the stars will tell us. We do know that to default the exploration of the universe of space would surely be as catastrophic in its consequences as if we had defaulted exploration of the universe of the atom. Our superiority in any scientific field will be brief and fading if we do not win and hold competence in this new and decisive realm of discovery.

As a Nation we have always ridden the first waves of progress—in the field of invention, in the field of industry, in the field of weaponry, in the field of nuclear power. Our past record of glorious achievement in these fields will be as nothing if we do not continue the effort in the realms of space.

There is an even more impressive reason why we must be first in the field of space. As President Kennedy has said:

> Only if the United States occupies a position of preeminence can we help decide whether this new ocean of space will be a sea of peace or a new, terrifying theater of war.

We are not exploring space for vainglorious reasons. We are seeking peace. We want to make space an instrument for the peaceful development of mankind. If we default on this, then space can be seized and dominated by others as an instrument of aggression.

Our whole future as a nation—and, indeed, as a race—depends upon our mastery of space. I do not think it is necessary to dwell upon the bleak future we would be handing to our progeny if we permitted the Soviet Union to build an Iron Curtain across the skies and thus make space the means by which she could inflict tyranny on the world.

The mastery of space will not be won by any single achievement, no matter how dramatic. It will be won by the nation that first accumulates all the scientific knowledge, all the technology, all the experience and all the facilities necessary for regular service.

But, why is the moon so important?

To me, the most important reason for going to the moon is that our national security demands that no hostile power will be able to use space as an unchallenged avenue of aggression against us. The world can be ruled from the skies above. Both the Russian and the American military leaders generally concede this point. The nation who dominates space will have the ability to dominate the earth.

Frankly, if the defense of our Nation did not depend upon our going to the moon, I would not be quite as favorable about this program as I am. But, in view of this consideration, I say to those who claim we cannot afford the expense of the effort: "We must afford it. We have no choice, no safe alternative. Our future, our security, our freedom and the freedom of our posterity all demand that we make the sacrifices necessary to attain this goal."

The job that must be done on the moon cannot be performed by machines, or by robots. The most sophisticated machines mankind has developed are still limited by what man knows here on earth. Machines cannot think. They cannot make on-the-spot judgments. They cannot select between alternatives that have not been anticipated by their creators. The ability to adapt to an unexpected situation is essential to successful exploration. This is a job for man. It cannot be done by machinery.

There is a further reason why moon exploration is so important to us. In making the prodigious effort to put a man on the moon we are going to have to move forward dramatically in many important fields: science, engineering, industrial development, design, mathematics, biology—the whole spectrum of scientific and technological accomplishment.

The program will provide an enormous stimulus to our intellectual growth. Right now, about 90 cents out of every space dollar is being spent with private industry. The byproducts of this program will have a tremendous influence on our daily lives.

We have many such byproducts with us today. One that comes to mind is a new kind of glass which the Corning people have developed. The space program demanded the development of a glass that could stand the extremes of heat and cold that are found in space. Corning came up with the answer and the same glass is proving invaluable in thousands of American kitchens today.

This is just one example. The program will be responsible for the production of fantastic fabrics undreamed of by the average layman today. Ordinary fabrics when exposed to the conditions of space, are inclined to disintegrate. An entirely new fabric, impervious to space conditions must be found. It will be found—and it will have many uses on earth, as well.

The program will develop new fuels. These fuels will eventually be used to move traffic on earth more swiftly, more economically and more effectively.

New metals and alloys will be developed. Some metals—in the virtual vacuum we have in space—literally boil away and evaporate. Others become as brittle as glass. The metals and alloys that emerge will be of great usefulness to us on earth.

The same goes for plastics. Even our most remarkable plastics today change their molecular structure when exposed to radiation and lose the properties that make them useful on earth. American industry must—and will—develop new plastics that will serve mankind in his own element as well as in the element of space.

The list is virtually endless. Almost every aspect of our daily life—from refrigerating and heating systems to the kind of shoes we wear and the kind of cars we drive—will be basically affected by our lunar exploration program.

Think for a moment what vast and basic changes have been made in our civilization just because a couple of mechanics named Orville and Wilbur Wright decided to experiment with a flying toy on the sands of Kitty Hawk. The entire world was changed in a few years. The effects of lunar exploration will make the effects of the flying machine seem minor by comparison. We shall move forward a full century in a few short years.

And, lastly, Mr. Speaker—lunar exploration is essential to our leadership in the free world—in the so-called uncommitted world—and eventually, in the entire world. I am not referring to the military aspect of this, I am referring to the intellectual and moral leadership which, after all, is the only kind of leadership that is permanent.

Our structure in the eyes of the world does not depend upon a few isolated,

spectacular achievements. It depends upon the resolution, patience, and skill we devote to enduring purposes.

We have always been the dominant nation in mechanical competence and adventure. From the time of Benjamin Franklin and his kite and Eli Whitney and his cotton gin, we have been, in the eyes of other people, the embodiment of ingenuity and know-how. The rest of the world has looked to us to supply these virtues—and to combine them with a morality and high ethical values all our own.

We have not been as dominant in these areas in recent years as we were in the past. If we flunk the space test, our prestige will dwindle away to nothing.

I have a feeling that the United States was beginning to suffer from premature middle age before the race for space began. We had done so much—invented so much—produced so much—that we were inclined to rest on our oars and make do with what we already had.

We felt there were no more new frontiers—no more challenges that were really first class.

This feeling of complacency is fatal to a nation devoted and dedicated, as we are, to the free enterprise system. You cannot stand still. If you try it, you find yourself being carried swiftly backward.

I sincerely believe that the space program—and particularly the aspect of the program involving lunar exploration—has reawakened the spirit of adventure and achievement in every segment of our civilization. It has stirred the imagination of science and industry. It has started the blood coursing a little more fervently through the arteries of our economy. It has started the pulse of our industry to start beating like a drum.

From the stimulus of the space program an entire new industrial revolution will be born.

Nothing quite like this has happened to us since the days of the pioneers. The vast spirit of adventure—which has been lying dormant among us in a period of comparative softness and ease—has been awakened like a sleeping giant.

It is just about time. We were in danger of abdicating our greatness. That danger is passing.

The decisions we make on space—including the placing of a man on the moon—will determine the shape of our world for many decades, perhaps for many centuries, to come. The position the United States will hold in the community of nations will in future years be determined by the position we hold in space.

The program is expensive. Nobody denies that. But, Mr. Speaker, if we decide to default in this program, that decision will prove to be the most expensive mistake mankind has ever made. The cost of such a mistake would be greater than we could possibly afford to pay.

Mrs. ST. GEORGE. Mr. Speaker, I yield 1 minute to the gentleman from Washington [Mr. PELLY].

Mr. PELLY. Mr. Speaker, the gentlewoman from New York expressed gratification that the rule provides for 5 hours of debate. I want to express my regret that it does not provide at least 6 hours because not only does this represent the authorization of a vast sum of money, but also the technicalities and the multiplicity of projects covered by the bill could well require more time.

So far as I am concerned, I have filed separate views which are in the report and I certainly hope my time will be sufficient so that I will be permitted to make my full statement.

Mrs. ST. GEORGE. Mr. Speaker, I yield 5 minutes to the gentleman from Iowa [Mr. GROSS].

Mr. GROSS. Mr. Speaker, I ask unanimous consent to speak out of the regular order.

The SPEAKER. Is there objection to the request of the gentleman from Iowa?

There was no objection.

Mr. GROSS. Mr. Speaker, I wish to call attention to the warning by a distinguished admiral, Arleigh Burke, former Chief of Naval Operations, that the TFX warplane contract investigation discloses practices that could result in the "destruction or political perversion" of our entire military procurement system.

Admiral Burke's warning is pointed directly at the decision of Secretary of Defense McNamara in which he overruled the Pentagon's source selection board and awarded the $6.5 billion to $8 billion TFX contract to the General Dynamics Corp.

Secretary McNamara has admitted he had no independent cost studies available on the low bid by the Boeing Co., but instead used figures out of his head and "rough judgment" to throw out the Boeing bid, which was $100 million to $415 million lower than General Dynamics.

Admiral Burke expressed serious concern over a memorandum prepared by John H. Rubel, one of McNamara's top aides, which proposes an end to recommendations of the source selection boards. Rubel's memorandum proposes that source selection boards be abolished. Substituted would be a source evaluation board which would make a report but have no power to recommend.

Burke insisted that the TFX decision and Rubel memorandum could promote a pattern of arbitrary decisions under a policy that is admittedly designed to avoid the embarrassment of overruling the recommendations of persons with expert knowledge and experience.

Admiral Burke said:

> Such a pattern can destroy the integrity of the source selection system. * * * Integrity in military procurement is vital to the morale of the military and civilian experts in the Pentagon, and vital to the industries that do business with the Pentagon.

The former Chief of Naval Operations insisted that above all there must be a conviction that arbitrary action will not prevail and that political influence or other improper influence cannot be successfully used to obtain multibillion-dollar contracts.

Mr. Speaker, I insist as I did a few days ago that in view of the evidence of conflict of interest that has been obtained by the McClellan investigating committee, President Kennedy ought to fire Secretary of the Navy Korth for the position he had taken in connection with the TFX contract manipulations.

I predict, Mr. Speaker, that evidence yet to come will tie the knot of conflict of interest even tighter around Korth, and that at least one other top official in the Pentagon ought to be summarily ousted.

I further predict, Mr. Speaker, that the Kennedy administration will find it has a Dixon-Yates conflict-of-interest case on its hands in connection with the TFX contract award.

Mrs. ST. GEORGE. Mr. Speaker, I yield 5 minutes to the gentleman from Pennsylvania [Mr. FULTON].

Mr. FULTON of Pennsylvania. Mr. Speaker, we have here for debate the science and astronautics authorization bill for 1964 which has been studied very thoroughly by our Science and Astronautics Committee. The Committee on Science and Astronautics has worked as hard as any congressional committee on which I have had the honor to serve, under the leadership of our fine chairman, the gentleman from California [Mr. MILLER].

Mr. Speaker, there have been many compliments which have been paid to the chairman of the committee and to the work of the committee. We have heard 3,000 pages of testimony on these many subjects, it has been a rewarding experience to have been on the team and to come up here with the unanimous committee action report.

Mr. Speaker, the committee did not take in full the recommendations the present administration sent up to Congress. We have visited the space installations all over the country. For myself, I spent a week in California visiting those various installations. And, of course, I have been to Cape Canaveral, Fla., Marshall Space Flight Center, Ala., Houston Manned Space Flight Center, Houston, and various other places where these projects and experiments are being conducted. We have followed these projects very closely. Therefore, our committee members are very familiar with the projects.

Mr. Speaker, if any Member should need any specific information on what is happening in the space programs, the Member can check with us at the committee tables on the House floor, and obtain such information.

Mr. Speaker, I have a tabulation, should any Member like to see it which shows the committee action in cutting the bill and the provisions where the bill has been cut. The administration request to the Congress at $5,712,000,000. We cut off $473,880,600. This represents an 8.3-percent cut, leaving the balance which we recommend to you unanimously in the committee report of $5,238,119,400.

Summary of committee modifications by NASA organizational function

Program	Requested	Change	Percent change	Approved
MANNED SPACE FLIGHT				
Research and development	$2,931,800,000	−$183,700,000	−6.3	$2,748,100,000
Construction of facilities	564,538,000	−75,422,000	−13.4	489,116,000
Total	3,496,338,000	−259,122,000	−7.4	3,237,216,000
APPLICATIONS				
Research and development	119,300,000	−9,925,000	−8.3	109,375,000
Construction of facilities	4,103,000	−170,000	−4.1	3,933,000
Total	123,403,000	−10,095,000	−8.2	113,308,000
SPACE SCIENCES				
Research and development	737,900,000	−89,200,000	−12.1	648,700,000
Construction of facilities	25,509,000	−7,731,300	−30.3	17,777,700
Total	763,409,000	−96,931,300	−12.7	666,477,700
ADVANCED RESEARCH AND TECHNOLOGY				
Research and development	331,200,000	−16,500,000	−5.0	314,700,000
Construction of facilities	78,250,000	−20,817,300	−26.6	57,432,700
Total	409,450,000	−37,317,300	−9.1	372,132,700
TRACKING AND DATA ACQUISITION				
Research and development	231,500,000	−14,800,000	−6.4	216,700,000
Construction of facilities	117,600,000	−18,500,000	−15.7	99,100,000
Total	349,100,000	−33,300,000	−9.5	315,800,000
Personnel costs and operation of facilities [1]	560,300,000	−52,115,000	−9.3	508,185,000
Advanced design	10,000,000	+15,000,000	+150.0	25,000,000
Grand total	5,712,000,000	−473,880,600	−8.3	5,238,119,400
RECAPITULATION				
Total research and development	4,351,700,000	−314,125,000	−7.2	4,037,575,000
Total construction of facilities	800,000,000	−107,640,600	−13.5	692,359,400
Total personnel costs and operation of facilities [1]	560,300,000	−52,115,000	−9.3	508,185,000
Grand total	5,712,000,000	−473,880,600	−8.3	5,238,119,400

[1] Under committee amendment "Personnel cost and operation of facilities" will be carried in the bill as "Administrative operations."

The committee has made a full report in detail. The report, which contains separate views, consists of 206 pages. We have these reports available.

I have a sheet here which will be available at the desk, containing six pages and showing the programs that have been changed since the bill was acted on last year in the House, and likewise we have the previous figures as to what has been done.

OFFICE OF INSPECTOR GENERAL

We need and strongly recommend the establishment of an Inspector General in the National Aeronautics and Space Administration. NASA's many and varied objectives have been characterized over the past 5 years by ever-increasing complexities and ramifications. The management problems that have arisen as a result of expanding roles and missions dictate the vital requirement for objective examination and evaluation of NASA's programs and operations.

My bill, H.R. 7770, establishes the Office of Inspector General in NASA and specifies the duties of the Inspector General. It is as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That title II of the National Aeronautics and Space Act of 1958 is amended by redesignating sections 205 and 206 as sections 206 and 207, respectively, and by inserting after section 204 the following new section:

"INSPECTOR OF PROGRAMS AND OPERATIONS

"SEC. 205. (a) There shall be in the Administration an Inspector of Programs and Operations (hereinafter in this section referred to as the 'Inspector') who shall be appointed by the Administrator (under clause (A) of section 203(b)(2)) and who shall be responsible directly to the Administrator and Deputy Administrator.

"(b) It shall be the duty of the Inspector to conduct a continuing study and review of the operations of the Administration, with specific reference to its contractual relations with private industry. In the discharge of this duty the Inspector shall—

"(1) arrange for, direct, or conduct such reviews, inspections, and audits of programs being conducted or participated in by the Administration as he considers necessary for the purpose of ascertaining the efficiency and economy of their administration, and of promoting the expeditious attainment of their objectives;

"(2) maintain continuous observation and review of programs with respect to which he is discharging such duty to determine the extent to which such programs are in compliance with applicable laws and regulations; make recommendations for the correction of deficiencies in, or for improving the organization, plans, or procedures of, such programs; and evaluate the effectiveness of such programs in attaining United States national space policy objectives; and

"(3) review and evaluate all contractual relations which the Administration has or may enter into with private organizations (profit and nonprofit), and require the cooperation of all such contracting organizations therein.

"(c) The Inspector shall have authority to suspend all or any part of any project, operation, or program with respect to which he has conducted or is conducting an inspection, audit, study, or review, provided he has first given written notice thereof to the Administrator and Deputy Administrator. Any such suspension shall remain effective until such project, operation, or program or part thereof is ordered resumed by him or by the Administrator or Deputy Administrator.

"(d) In carrying out his functions under this section, the Inspector shall use to the fullest practicable extent the auditing, investigation, and inspection facilities of the various departments and agencies of the Federal Government, including those of the General Accounting Office and of the inspectors general of the Armed Forces."

It was deemed by the chairman that such a matter should receive the attention of the committee and be the subject of hearings. In expressing my views here, I wish to emphasize that the importance of such an office to the efficiency of NASA operations and programs cannot be underestimated. Other agencies of the U.S. Government have benefit of such offices. The Departments of the Army, Navy, and Air Force have by law Offices of Inspector General as does the Department of State. The Department of Agriculture has an Office of Inspector General established by the Secretary in January 1963. I consider it of vital importance for NASA to have such an office in view of the ever-increasing complexities now existing within the programs of NASA.

VENUS PROGRAM

The country should be gratified by the impressive results achieved by the Mariner II program in the probing of Venus, its atmosphere, and its surface. I believe strongly that the Venus research program should be continued to include additional probes of the Venus environment and the surrounding space. The fact that we found surface temperatures of 800° from 21,000 miles away should not discourage us from further exploration. The surface of the Earth might also appear equally uninhabitable from a similar distance. It is my opinion that there is much more new scientific information that can be obtained that will be of vital importance to future interplanetary explorations.

COMMITTEE STAFFING

The legislative oversight of this committee over NASA's expanding missions places a requirement upon our committee for well-developed and continuous channels of information on NASA's operations. I therefore recommend and urge that the committee employ five field inspectors competent in such disciplines as engineering, electronics, biology, and so forth. Each of the five inspectors should be assigned areas of examination and inquiry and should be assigned on a continuing basis to various NASA field stations as the committee should direct. This should result in the continuing flow of information back to the committee on the current status and efficiency of NASA's programs and operations. It should also result in giving to the committee a greater capacity to evaluate fu-

ture NASA budget presentations for fiscal authorizations.

COMMITTEE MINORITY STAFFING

I strongly believe that three staff members should be employed to take care of the needs of the minority. There is no question in my mind that the requirements of the committee minority demand the special attention of staff members who can devote all their time to such purposes.

Under the present arrangement, and because of the burden of work that is being carried by the present staff, the minority feels that its needs could be more adequately met. It is my view that a minority staff could fill out the inadequacies presently being experienced by the minority and therefore provide to the Congress, in conjunction with the present staff, a well-integrated team of competence and ability. It will be thus that the House can be benefited by well-balanced views, conclusions, and recommendations.

THE REPROGRAMING AND TRANSFER AUTHORITY OF NASA

The budget requested for National Aeronautics and Space Administration is submitted by the President to Congress approximately 6 months prior to the beginning of the fiscal year for which these funds are requested. Between the time of the submission of the budget to Congress and when the funds are actually appropriated, some modifications normally are required between the items for which funds were requested and those for which they are then required. On the fiscal year 1963 NASA budget request, for example, approximately 10 months expired between its submission to Congress and the enactment of the appropriation bill on October 3, 1962.

This timelag, according to Dr. Seamans, made some changes necessary in the budget request as originally submitted. It resulted from management decisions made during that period and from NASA's continuous evaluation of the programs in the light of mission successes, mission failures, new developments and breakthroughs, and unexpected developmental roadblocks. Likewise, during the fiscal year itself, similar impacts upon the programs may require additional changes in program direction or effort.

Congress has recognized that due to the "exploding technology" inherent in the national space effort, some changes are necessary and provision has been made in the annual authorization and appropriation acts to provide this flexibility.

In a letter of April 11, 1962, to Chairman GEORGE P. MILLER, Dr. Hugh L. Dryden, Deputy Administrator of NASA, stated concerning this flexibility that: "It can be categorically stated that America's civilian peaceful space program would be nowhere near its present level of accomplishment if it were not for the elasticity which the Congress built into its program in the emergency reprograming provisions. They have been invaluable tools in accelerating and synchronizing the program."

The authority of the Administrator of NASA to transfer funds, and the requirements he must meet when doing so, are set forth in the two acts. A discussion of this authority is contained in appendix D. The fact that the Administrator presently has certain authority to reprogram and transfer funds, however, does not necessarily indicate that this same authority will be granted in future authorization acts. As the space program progresses, the committee may find it necessary to enlarge or curtail this authority to meet changing conditions.

REPROGRAMING ACTIONS DURING FISCAL YEAR 1963

Below are the principal reprograming actions made by NASA during fiscal year 1963 as outlined in the testimony of Dr. Seamans.

For fiscal year 1963, the President presented a budget request to Congress for $3,787.3 million made up of $2,968.3 million for research, development, and operations, and $819 million for construction of facilities.

Congressional actions during the authorization and appropriation proceedings resulted in a decrease in the R.D. & O. request of $70.4 million and in the CoF request of $42.8 million, for an overall decrease of $113.2 million.

After the above action by Congress, according to Dr. Seamans, NASA transferred $38.8 million from the CoF program to R.D. & O. in accordance with the 5-percent transfer authority granted in the appropriation act. NASA also applied $13.6 million from prior year R.D. & O. appropriations to current R.D. & O. to arrive at the operating plan of $2,950.3 million for R.D. & O., and $737.4 million for CoF, making a total operating budget of $3,687.7 million.

Dr. Seamans stated that during the time that elapsed between the preparation of the fiscal year 1963 budget in December 1961 and the final congressional action on the budget request in September 1962, certain modifications of individual budget items became necessary "as a consequence of dynamic activity in our programs." The operating plan arrived at was structured to meet current program needs, and in view of the reductions made by Congress, certain reprograming of funds became necessary.

Fiscal year 1963 gross program status

[In millions of dollars]

	Research development and operations	Construction of facilities	Total
President's budget request	2,968.3 −70.4	819.0 −42.8	3,787.3 −113.2
Appropriation	2,897.9 +52.4	776.2 −38.8	3,674.1 +13.6
Operating plan	2,950.3	737.4	3,687.7

For new R. & D. projects which were not described in the fiscal year 1963 budget submission, $167 million was added. This included $103 million in the area of manned space flight for such items as the Saturn I–B, systems engineering, integration and checkout, and the operational implementation of an integrated mission control center for Gemini and Apollo. In the area of applications, $3 million was added to accelerate the transfer of acquired technology to industry, and secondly, to look at potential satellite applications other than communications and meteorology, as for example, data gathering. In space sciences, $49 million was added for several planetary and interplanetary flight projects, and for increased launch vehicle development support. In advanced research and technology, $12 million was added for a number of small technological flight projects.

In addition to the deletion or addition of whole R. & D. projects, the rest of NASA's R. & D. program underwent a number of detailed changes which resulted in a gross addition of $17.4 million to the amounts requested last year in the budget.

In the operation of installations, it was necessary to increase the number of personnel at the centers for a net cost increase of $6 million beyond the budget figure.

CONSTRUCTION OF FACILITIES SUMMARY

The President's budget request of $819 million for CoF was reduced by Congress to $776.2 million. Of this amount, NASA transferred 5 percent, or $38.8 million, to R.D. & O., leaving an operating plan of $737.4 million. The major reprograming actions in CoF are shown below:

Construction of facilities

Project deletions	$105.1
Nova facilities	76.9
Location changed	13.0
Miscellaneous	15.2
Project reductions	47.4
Nuclear rocket development station	23.0
Miscellaneous (net)	24.4
Project additions	103.7
Replacement facilities	28.3
Test and launch facilities	60.0
Utilities and access	8.1
Support facilities	7.3

The strength and security of this Nation is not based only upon how well our Armed Forces are equipped, or upon how many men we have under arms, or upon how many nuclear weapons we have in our arsenal. Strength and security is based upon our scientific knowledge, our technological capabilities, and upon the ability to translate in a superior and timely manner that knowledge and capability through industry into reality. Our space program, conducted as a peaceful venture, contributes to that strength.

In our lunar exploration program: Involved in this is the gathering of scientific information through unmanned satellites that will eventually make possible the landing of Americans on the moon and insuring their safe return. The knowledge required to do this should obviously be of great importance to our military space planning. The area of rendezvous in space, and the techniques involved, is an example of the kind of knowledge the Department of Defense must have if it is to mount an effective defense capability in space. If the Air Force gains that knowledge through its present association with NASA programs, we have accomplished a double end. We have through NASA contributed directly to the defense of our country. And yet, we will not have violated our basic article of faith to explore space for peaceful purposes.

If we consider ourselves as a member of a community of free nations, then anything positive we do to enhance that union is to our benefit. Furthermore, our acknowledged leadership of that community is based very clearly upon our technological and industrial superiority.

Therefore, when we send up a communications satellite that brings direct television broadcasts into the homes of people in Europe and in the Americas all at the same time, that is not a reaffirmation of that leadership.

COMMITTEE ON SCIENCE AND ASTRONAUTICS

Recapitulation—Reprograming NASA construction of facility, fiscal year 1963

Letter No.	Date	Location and project	Source and amount		
			Sec. 3, Public Law 87-741		Sec. 1(c), Public Law 87-741
			R. D. & O.	C. of F.	
1	Sept. 28, 1962	To provide facilities for testing 2d stage advanced Saturn at following: (1) AF Plant No. 16, Downey, Calif. (2) AF Plant No. 57, Santa Susanna. (3) Navy Ammo Depot, Seal Beach, Calif.			$11,207,558 from advanced Saturn R.D. & O. funds.
2	Oct. 29, 1962	Access road construction at Langley	$780,000		
3	do	For construction of 4 multi purpose warehouse-type buildings at Goddard.		$1,375,000 from construction items at Goddard, i.e., Applied Science Laboratory, Dynamic Test Chamber and Tracking and Telemetry Laboratory.	
4	Oct. 30, 1962	Solid suborbital vehicle launch facility at White Sands Missile Range.		$1,617,000 location transferred from AMR.	
5	Nov. 5, 1962	R. & D. support of North American Apollo contract at AF Plant No. 16, Downey, Calif.			$7,655,000.
		Additional facility for development of Apollo propulsion system at White Sands Missile Range.			$9,084,000.
6	do	Additional funds for the 4 multipurpose buildings at Goddard.		$21,000 from Dynamic Test Chamber at Goddard.	
7	Nov. 23, 1962	Static test facility for Saturn S-IV-B in support of Douglas contract (16,582,000 at Douglas Sacramento, and 1,993,000 at Douglas Santa Monica plant).			$18,575,000 from Saturn C-V launch vehicle account.
8	Nov. 20, 1962	For construction of Mission Control Center at Manned Spacecraft Center, Houston, Tex.	$16,956,700		
9	Nov. 28, 1962	Participation in road construction at Nuclear Rocket Development Station, Nevada.		$4,500,000 from radiation effects facility at Nuclear Rocket Development Station.	
10	Dec. 18, 1962	To modify vertical test stand No. 3 for J-2 engine at Propulsion Field Laboratory, Santa Susanna, Calif.		$615,000 from modifications to Demta 3 stand at same site.	
11	Dec. 26, 1962	Modifications for Saturn S-IC facility at Michoud.		$6,617,000 from advanced Saturn 1st stage static test facility.	
12	Dec. 31, 1962	Advanced Saturn 2d stage (S-II) static test facility at Mississippi Test Facility.		$7,000,000 from construction and support facility previously authorized for this site.	
13	Jan. 10, 1963	Modification of AF Nuclear Aerospace Research Facility, Fort Worth, Tex.		$3,125,000 from Radiation Effects Laboratory, nuclear rocket development station.	
14	do	Construction of 2 railroad spur lines at launch operation center, Florida (AMR).		$2,200,000 from Nova launch complex project.	
15	Jan. 15, 1963	Newly projected additional construction and modernization to buildings at Plum Brook Station, Ohio.		$558,000 from funds appropriated for this site.	
16	Jan. 22, 1963	Construction of administrative and service building at Government-owned contractor-operated S-II stage facility, U.S. Naval Ammunition Depot, Seal Beach, Calif.	$720,000 from advanced Saturn development account.		
17	Jan. 29, 1963	For construction of development engineering annex, Lewis Center.	$835,000, human factor systems program.		
18	Feb. 5, 1963	Partial construction costs for northwest Australia tracking station, Carnarvon, Australia.	$1,100,000, manned flight network equipment and component account.		
19	do	Construction of meteorological radar facility at launch operation center (AMR).		$2,372,000, Nova launch complex project.	
20	do	Construction of engineering building at Michoud plant, New Orleans.	$10,150,000 from advanced Saturn launch vehicle project.		
21	Jan. 31, 1963	Construction of Advanced Saturn, 2d stage static test facilities at Mississippi Test Site.	$17,328,000 from advanced Saturn funds.		
22	Feb. 7, 1963	Modification of the E stand at Plum Brook Station for testing Centaur with Atlas.	$870,000 operational vehicle support project.		
23	do	Modification to space power chamber tank No. 1 at Lewis Center.	$316,500 operational vehicle support project.		
24	Feb. 21, 1963	Expansion to city of Cocoa waterplant for water supply at Merritt Island, Fla.	$1,100,000 range support account		
25	do	Construction of Saturn V ground support equipment test facility at Marshall.	$5,203,000		
26	Mar. 6, 1963	Construction of electronics instrumentation and materials laboratory at Mississippi test site.	$2,437,000 from Saturn V project		
27	Apr. 13, 1963	Addition to physics building, University of Minnesota.			$704,000.
28	Apr. 17, 1963	Additional funds for "Advanced facility planning and design.	$4,417,500 Saturn V account		
29	Apr. 18, 1963	Supplements letter No. 16 dated Jan. 22, 1963, re construction of administration building at Naval Ammo Depot at Seal Beach to reprogram $600,000 only and not $720,000.			
30	Apr. 22, 1963	Addition to space flight operations facility at Jet Propulsion Laboratory.	$572,000 from funds appropriated for Surveyor project.		
31	Apr. 26, 1963	Addition to utility installations at Marshall Center.	$1,304,000 from institutional support account.		
		For service support building at Edwards Air Force Base.	$1,050,000 from F-1 engine program		
32	Apr. 30, 1963	Construction of combined systems test stand for Centaur-Atlas-Surveyor at General Dynamics plant No. 71 at San Diego.	$6,754,350 from Centaur project account.		
		Totals	$71,774,050	$30,000,000	$47,225,558.

If through our Tiros weather satellites we can discover the spawning of hurricanes and typhoons that threaten the lives and property of millions of people and if we can warn them of threatening danger, of floods and locust plagues, we have demonstrated our concern for the welfare of man.

I believe that the money already authorized for NASA, and this budget authorization we are considering here, has and will be returned to us many times over in tangible as well as intangible terms.

The space program has already shown that it has injected into the national economy great new stimulus. The funds that have been appropriated have been invested into our own community. They can be realistically translated down through Government and industry into increased material wealth that is presently affecting every aspect of our society.

The national space program draws upon almost every scientific discipline. It makes urgent demands for more knowledge from science and technology. It demands greater capabilities from industry.

The space program has confronted our universities and colleges with the necessity of demanding higher scholastic achievement through greatly improved curriculums in order that graduates can be useful to NASA, the Department of Defense, to government, and to our society as a whole.

Because of the unique requirement of highly specialized talents, and products, the space program has stimulated the creation of thousands of new industries, producing materials and devices which can be utilized through other forms and other applications by the general public.

[In thousands of dollars]

	Fiscal year 1963 President's budget	Fiscal year 1963 plan in fiscal year 1964 President's budget	Net change
Personnel costs	234, 316	257, 655	+23, 339
Operation of installations costs	193, 667	177, 251	−16, 416
Total, operations	427, 983	434, 906	+6, 923
Grand total, research, development, and operation	2, 968, 278	2, 950, 255	−18, 023

In respect to new programs there are only $50 million worth of new programs proposed by NASA. There are seven such projects. They are:

	1962	1963	1964
RANGE INSTRUMENTATION			
Advanced instrumentation			$3, 300, 000
Design, data, and measurement			4, 800, 000
Safety instrumentation			3, 450, 000
Launch support instrumentation			3, 890, 000
Range telemetry expansion for MILA			4, 560, 000
Total, range instrumentation			20, 000, 000
IONOSPHERE MONITORS			
Spacecraft			2, 200, 000
Experiments			500, 000
Ground operations			150, 000
Test and support			150, 000
Total, spacecraft and support			3, 000, 000
GEODESY (ANNA)			
Spacecraft			3, 400, 000
Launch vehicles			2, 800, 000
Total			6, 200, 000
INTERNATIONAL SATELLITES			
Scout launch vehicles			$3, 000 000
Total follow-on international satellites			4, 000, 000
ADVANCED FIRE			
Spacecraft and support services			5, 600, 000
Velocity package			1, 200, 000
Launch vehicle			1, 700, 000
Total, advanced fire			8, 500, 000
SPACE VEHICLE RECOVERY			
Flight vehicles and support services			950, 000
SECONDARY ENVIRONMENTAL EXPERIMENTS			
Experiments and support services			550, 000
Scanner			1, 750, 000
Electronics Research Center			$5, 000, 000

New projects total only $50 million worth out of $5.2 billion total recommended by the committee. On May 23, 1962, which was a Wednesday, this House voted on these current space programs and authorized them unanimously. We voted 342 to nothing to carry these projects on through a recorded vote. The leadership of the House on both sides voted for these programs.

Let me finish by saying that this is not a crash program. This is a program to meet efficiently the projects proposed by President Eisenhower and President Kennedy to have the United States preeminent in space. Only one part of that project or program of the President is the moon program. Many projects of science and research are such that we cannot tell whether they are military or civilian at the present time, so that many of those projects have military or civilian application yet to be determined. NASA has the responsibility of science in all fields in Government. When you think that we have Cuba 90 miles away you must also remember these space vehicles orbit at 17,500 miles an hour 89 to 500 miles over our heads.

I include herewith a comparative analysis of the fiscal year 1963 President's budget with fiscal year 1963 operating plan shown in fiscal year 1964 budget:

[In thousands of dollars]

	Fiscal year 1963 President's budget	Fiscal year 1963 plan in fiscal year 1964 President's budget	Net change
Manned spacecraft systems	781, 284	708, 521	−72, 763
Launch vehicle and propulsion systems	795, 943	734, 057	−61, 886
Aerospace medicine	18, 000	7, 000	−11, 000
Integration and checkout	0	38, 500	+38, 500
Systems engineering	0	26, 500	+26, 500
Subtotal, Office of Manned Space Flight	1, 595, 227	1, 514, 578	−80, 649
Geophysics and astronomy	151, 900	144, 500	−7, 400
Lunar and planetary exploration	246, 300	221, 179	−25, 121
Bioscience	7, 093	21, 000	+13, 907
Launch vehicle development	64, 200	108, 000	+43, 800
Facility, training and research grants	10, 000	30, 600	+20, 600
Subtotal, Office of Space Sciences	479, 493	525, 279	+45, 786
Meteorological satellites	44, 300	57, 315	+13, 015
Communications satellites	78, 900	43, 715	−35, 185
Advanced applications satellites	0	800	+800
Industrial applications	0	2, 370	+2, 370
Subtotal, Office of the Administrator	123, 200	104, 200	−19, 000
Space vehicle systems	45, 885	45, 931	+46
Electronic systems	20, 300	20, 696	+396
Human factor systems	3, 345	10, 060	+6, 715
Nuclear-electric systems	40, 500	43, 531	+3, 031
Nuclear rockets	82, 850	71, 826	−11, 024
Chemical propulsion	14, 175	14, 469	+294
Space power technology	10, 250	10, 859	+609
Aeronautics	4, 905	18, 078	+13, 173
Subtotal, Office of Advanced Research and Technology	222, 210	235, 450	+13, 240
Tracking and data acquisition, Office of Tracking and Data Acquisition	120, 165	135, 842	+15, 677
Total, research and development	2, 540, 295	2, 515, 349	−24, 946

These orbiting vehicles can, according to a Russian general's statement last year, carry nuclear weapons. Therefore, we must quickly learn how to operate in space, both for peacetime use of space as well as for the military strategic necessity this country faces.

The Subcommittee on Manned Space Flight began hearings on NASA's 1964 authorization on March 6, 1963, and concluded on June 6, 1963. During this 3-month period the subcommittee held 31 open hearings plus 12 executive sessions; it took testimony from more than 100 witnesses. This included, in addition to NASA witnesses, those from other Government departments such as the Defense Department and the Air Force, from half a dozen industrial organizations, from the National Aeronautics and Space Council, and from the astronauts themselves.

At the same time, the subcommittee traveled as a group for discussions with those most concerned with doing the actual work on manned space flight throughout the country. This meant meeting with both industry and Government people in the Los Angeles area, in Sunnyvale, at Edwards Air Force Base, at Cape Canaveral, at Daytona Beach, and at Houston. In addition, individual members of the subcommittee, both prior to and during the course of our hearings, spent similar time at NASA centers involved in manned space flight, including Huntsville, Michoud, and the Mississippi test facility.

For the most part the Manned Space Flight Subcommittee has approved NASA's budget requests as being well planned, the need for which is supported by the evidence. In fact, all NASA witnesses emphasized over and over with unshakable conviction, that any cut in their requests would slow or damage the manned space flight program. Nonetheless, the subcommittee did find a number of areas in which reductions in the budget requests could and should be made. In many instances these reductions amount simply to deferrals, inasmuch as NASA was not able to show that all the money requested could be used within the 1964 fiscal year time period.

The changes made by the subcommittee in NASA's requests are as follows:

TOTAL REDUCTION

The total reduction amounts to $259,122,000. This amount represents 7.4 percent of the total manned space flight portion of the budget, not including costs for personnel and operation of installations.

RESEARCH AND DEVELOPMENT

The total reduction in research and development amounts to $183,700,000. This is 6.3 percent of the research and development budget for manned space flight and is distributed as follows:

Project Apollo, $120 million: This is the largest part of the reduction made in research and development. While it is a substantial reduction in terms of dollars, it is in fact slightly less than a 10 percent cut in the $1.2 billion requested by NASA for Project Apollo in 1964. The Apollo figure does not include development costs of the Saturn vehicles and engines, for which another $1 billion is being requested. This reduction was agreed upon after investigation by the subcommittee in California and interrogation of NASA witnesses showed that the use of the amount in question could not be wholly identified. This was particularly true in connection with the development of the command and service modules, for which $661 million had been requested.

The M–1 engine, $30 million: The M–1 engine is a 1½-million-pound thrust oxygen-hydrogen engine originally intended to serve as an upper stage in the Nova. There is now no specific mission for the M–1 engine, but the advantages of its higher specific impulse makes it a potentially useful engine for some future vehicle. The subcommittee felt that the $45 million being requested for the M–1 was excessive in view of the very long leadtime envisioned for this engine, plus the fact that present concepts of this type may be outmoded or in need of revision by the 1970's when the M–1 would become operational. At the same time, the subcommittee did not wish to eliminate completely development of the engine. It, therefore, decided to recommend that $15 million of the $45 million be retained for continued study and development.

Integration and checkout, $28 million: NASA has requested $153 million for 1964 to be used for integration and checkout of all systems connected with Project Apollo. The major part of this money is to be used to fund the GE checkout contract. However, NASA could not say specifically how much would be required for GE. It estimates a minimum of $100 million and a maximum of $125 million. The NASA testimony on what would be done with the balance of $28 million was also vague and uncertain. The subcommittee, therefore, recommends the elimination of the balance.

Aerospace medicine, $5.7 million: NASA requested $16.7 million for biomedical engineering in connection with its manned space flight program for 1964. This is more than a 100 percent increase of the funds allocated in 1963 for this purpose. Subcommittee investigation disclosed that the rate of progress required, together with the bioscience capability existing within other Government agencies, primarily the Air Force and the Navy, should make it possible to find this project at the level of $11 million instead of the total amount requested.

CONSTRUCTION OF FACILITIES

NASA requested a total of $564,538,000 for construction of new manned space flight facilities in its 1964 budget. Of this amount, the subcommittee recommends reductions totaling $75,422,000. The reduction is a 13.4-percent cut in the total requested. However, more than 90 percent of this amount represents either deferrals where the money can be funded incrementally over several years rather than 1, or the elimination of a request for advanced design money which NASA has already funded from past budgets.

A detailed breakdown of the projects reduced or eliminated is attached to this report.

PERSONNEL AND INSTALLATIONS

While this subcommittee has not been specifically charged with evaluation of NASA's needs for personnel and for operational costs, the subcommittee believes that it may be possible to reduce some of these costs in appropriate proportion to reductions made in research and development and in construction of facilities.

The subcommittee, therefore, wishes to call to the attention of the proper subcommittee that if recommendations made here are adopted by the full committee, a 7.4-percent reduction will have been made in the manned space flight budget. It may be that adjustments are in order which would recognize this fact.

Research, development, and operation

Program	Requested	Reduction	Balance	Program	Requested	Reduction	Balance
Project Apollo (RDO 1–10)	$1,207,400,000	$120,000,000	$1,087,400,000	Aerospace medicine (RDO 3–1)	$16,700,000	$5,700,000	$11,000,000
M–1 engine (RDO 2–22)	45,000,000	30,000,000	15,000,000	Integration and checkout (RDO 4–1)	153,000,000	28,000,000	125,000,000

Science is skilled curiosity. It functions through imagination and training.

Science advances from knowns to probabilities, to possibilities.

Science rises on rare occasions with intuitive foresight that permits rare intellects to leapfrog the ascending steps of the pyramid of scientific knowledge.

The United States must keep open the path of science and development.

I therefore strongly urge the passage of H.R. 7500.

Mr. DELANEY. Mr. Speaker, I move the previous question.

The previous question was ordered.

The SPEAKER. The question is on the resolution.

The question was taken, and the Speaker announced the yeas appeared to have it.

Mr. FULTON of Pennsylvania. Mr. Speaker, I object to the vote on the ground that a quorum is not present, and make the point of order that a quorum is not present.

The SPEAKER. Evidently a quorum is not present.

The Doorkeeper will close the doors, the Sergeant at Arms will notify absent

Members, and the Clerk will call the roll.

The question was taken; and there were—yeas 387, nays 1, not voting 44, as follows:

[Roll No. 110]

YEAS—387

Abbitt
Abele
Abernethy
Adair
Addabbo
Albert
Alger
Anderson
Andrews
Ashbrook
Ashley
Ashmore
Aspinall
Auchincloss
Avery
Ayres
Baker
Baldwin
Baring
Barry
Bates
Becker
Beckworth
Beermann
Belcher
Bell
Bennett, Fla.
Berry
Betts
Blatnik
Boggs
Boland
Bolling
Bolton, Frances P.
Bolton, Oliver P.
Bonner
Bow
Brademas
Bray
Brock
Bromwell
Brooks
Broomfield
Brown, Calif.
Brown, Ohio
Broyhill, N.C.
Broyhill, Va.
Bruce
Burke
Burkhalter
Burleson
Burton
Byrne, Pa.
Byrnes, Wis.
Cameron
Cannon
Carey
Casey
Cederberg
Celler
Chamberlain
Chelf
Chenoweth
Clancy
Clark
Clausen, Don H.
Clawson, Del
Cleveland
Cohelan
Collier
Conte
Cooley
Corbett
Corman
Cunningham
Curtin
Curtis
Daddario
Dague
Daniels
Davis, Ga.
Dawson
Delaney
Denton
Derounian
Derwinski
Devine
Dingell
Dole
Donohue
Dorn
Dowdy
Downing
Dulski
Duncan
Dwyer
Edmondson
Edwards
Elliott
Ellsworth
Everett
Fallon
Farbstein
Fascell
Feighan
Findley
Finnegan
Fino
Fisher
Flood
Fogarty
Ford
Foreman
Forrester
Fountain
Frelinghuysen
Friedel
Fulton, Pa.
Fulton, Tenn.
Fuqua
Gallagher
Garmatz
Gary
Gathings
Giaimo
Gibbons
Gilbert
Gill
Glenn
Gonzalez
Goodell
Goodling
Grabowski
Grant
Green, Oreg.
Green, Pa.
Griffiths
Gross
Grover
Gubser
Gurney
Hagan, Ga.
Hagen, Calif.
Haley
Hall
Halleck
Halpern
Hanna
Hansen
Harding
Hardy
Harris
Harrison
Harsha
Harvey, Ind.
Harvey, Mich.
Hawkins
Hays
Healey
Hechler
Hemphill
Henderson
Herlong
Hoeven
Hoffman
Holifield
Holland
Horan
Horton
Hosmer
Huddleston
Hull
Hutchinson
Ichord
Jarman
Jennings
Jensen
Joelson
Johansen
Johnson, Wis.
Jonas
Jones, Ala.
Karsten
Karth
Kastenmeier
Keith
Kelly
Keogh
Kilburn
Kilgore
King, Calif.
King, N.Y.
Kirwan
Kluczynski
Knox
Kornegay
Kunkel
Kyl
Laird
Landrum
Langen
Lankford
Latta
Leggett
Lennon
Lesinski
Lindsay
Lipscomb
Lloyd
Long, La.
Long, Md.
McClory
McCulloch
McDade
McDowell
McFall
McIntire
McLoskey
McMillan
MacGregor
Madden
Mahon
Mailliard
Marsh
Martin, Calif.
Martin, Mass.
Martin, Nebr.
Mathias
Matsunaga
Matthews
May
Meader
Michel
Miller, Calif.
Milliken
Mills
Minish
Minshall
Monagan
Montoya
Moore
Moorhead
Morgan
Morris
Morrison
Morse
Morton
Mosher
Moss
Multer
Murphy, Ill.
Murphy, N.Y.
Murray
Natcher
Nelsen
Nix
Norblad
O'Brien, N.Y.
O'Hara, Ill.
O'Konski
Olsen, Mont.
O'Neill
Osmers
Ostertag
Passman
Patman
Patten
Pelly
Pepper
Perkins
Philbin
Pike
Pilcher
Pillion
Pirnie
Poage
Poff
Pool
Powell
Price
Pucinski
Purcell
Quie
Quillen
Rains
Randall
Reid, Ill.
Reid, N.Y.
Reifel
Reuss
Rhodes, Ariz.
Rhodes, Pa.
Rich
Riehlman
Rivers, Alaska
Rivers, S.C.
Roberts, Ala.
Roberts, Tex.
Rodino
Rogers, Colo.
Rogers, Fla.
Rogers, Tex.
Rooney
Roosevelt
Rosenthal
Rostenkowski
Roudebush
Roush
Roybal
Rumsfeld
Ryan, Mich.
Ryan, N.Y.
St. George
St Germain
St. Onge
Saylor
Schadeberg
Schenck
Schneebeli
Schweiker
Schwengel
Secrest
Selden
Senner
Shelley
Shipley
Short
Shriver
Sibal
Sickles
Sikes
Sisk
Slack
Smith, Calif.
Smith, Va.
Snyder
Springer
Staebler
Stafford
Staggers
Steed
Stephens
Stinson
Stratton
Stubblefield
Sullivan
Taft
Taylor
Teague, Calif.
Teague, Tex.
Thomas
Thompson, La.
Thompson, N.J.
Thompson, Tex.
Thomson, Wis.
Toll
Tollefson
Tuck
Tupper
Tuten
Udall
Ullman
Utt
Van Deerlin
Vanik
Van Pelt
Waggonner
Wallhauser
Watson
Weaver
Weltner
Westland
Whalley
Wharton
White
Wickersham
Widnall
Williams
Willis
Wilson, Bob
Wilson, Charles H.
Wilson, Ind.
Wright
Wydler
Wyman
Young
Younger

NAYS—1

Siler

NOT VOTING—44

Arends
Barrett
Bass
Battin
Bennett, Mich.
Brotzman
Buckley
Cahill
Colmer
Cramer
Davis, Tenn.
Dent
Diggs
Evins
Flynt
Fraser
Gavin
Gray
Griffin
Hébert
Johnson, Calif.
Jones, Mo.
Kee
Libonati
Macdonald
Miller, N.Y.
Nedzi
O'Brien, Ill.
O'Hara, Mich.
Olson, Minn.
Robison
Scott
Sheppard
Skubitz
Smith, Iowa
Talcott
Thornberry
Trimble
Vinson
Watts
Whitener
Whitten
Winstead
Zablocki

So the resolution was agreed to.

The Clerk announced the following pairs:

Mr. Sheppard with Mr. Arends.

Mr. Johnson of California with Mr. Miller of New York.

Mr. Trimble with Mr. Skubitz.

Mr. Buckley with Mr. Cahill.

Mr. Barrett with Mr. Bennett of Michigan.

Mr. Bass with Mr. Cramer.

Mr. Dent with Mr. Gavin.

Mr. Evins with Mr. Talcott.

Mr. Gray with Mr. Robison.

Mr. Hébert with Mr. Brotzman.

Mr. Libonati with Mr. Battin.

Mr. Macdonald with Mr. Griffin.

Mr. Vinson with Mrs. Kee.

Mr. O'Brien of Illinois with Mr. Scott.

Mr. Davis of Tennessee with Mr. Olson of Minnesota.

Mr. Nedzi with Mr. Whitten.

Mr. Colmer with Mr. Watts.

Mr. Diggs with Mr. Zablocki.

Mr. Thornberry with Mr. Flynt.

Mr. Whitener with Mr. Smith of Iowa.

Mr. Winstead with Mr. O'Hara of Michigan.

The result of the vote was announced as above recorded.

The doors were opened.

IN THE COMMITTEE OF THE WHOLE

Mr. MILLER of California. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 7500) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and administrative operations; and for other purposes.

The motion was agreed to.

Accordingly, the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill H.R. 7500.

The Clerk read the title of the bill.

By unanimous consent, the first reading of the bill was dispensed with.

Mr. MILLER of California. Mr. Chairman, I yield myself such time as I may use.

Mr. Chairman, the bill scheduled for consideration today is H.R. 7500, the NASA authorization bill for fiscal year 1964. The total amount recommended by the committee in H.R. 7500 is $5,238,-119,400. This is a reduction of $473,880,-600 from the original request of $5.712 billion. In terms of percentages, the committee's action amounts to an 8.3 reduction.

Now, briefly, let me tell you the reductions in the main NASA programs. We reduced manned space flight, $259,122,-000; space sciences, $96,931,300; advanced research and technology, $37,-317,300; applications, $10,095,000; tracking and data acquisition, $33,300,000; and, finally, administrative operations, $52,115,000.

At the outset, let me say that this bill was reported from the committee by unanimous vote.

Now we all recognize that this is a large authorization. Because of this, and the importance of the program from a national viewpoint, this has received the most careful and searching scrutiny.

Permit me to take a moment to explain how the committee proceeded with its work on the bill. First, of the 31-member committee, 3 subcommittees were formed and assigned major portions of the NASA budget. These subcommittees held almost continuous hearings on all phases of the budget for more than 4 months and after that the full committee held many hearings on the recommendations of the subcommittees. Seventy-nine witnesses appeared before the subcommittees and of this number many appeared on numerous occasions. A total of 3,540 pages of testimony was taken during the hearings on this bill.

I do not recount these matters for the purpose of attempting to establish a record for committee action in the number of hearings, witnesses heard, or pages of testimony taken but rather to impress on you that the committee has taken its responsibility most seriously.

This becomes immediately apparent when you are privileged to witness Members of Congress, with all of their pressing duties, sitting day after day, week after week, for long hours with near perfect subcommittee attendance, going over each of the programs and items with a dedication to searching out the facts so that the Science and Astronautics Committee—as your representatives—could bring to you this most thoroughly studied legislative measure.

I have already mentioned that the committee recommends a total reduction of $473,880,600. This figure does not comprise across-the-board cuts.

When the committee believed that reductions should be made, it was done only after the greatest study and deliberation.

We tried, in all cases, to cut fat and not muscle and every effort was made to be certain that reductions or deferrals would not slow down the overall space program.

We deliberately searched for areas where we believed the requests could not be funded in fiscal year 1964, and when found, we deferred them.

The reductions and deferrals recommended by the committee are, in our estimation, completely justified. But by the same token, I want to emphasize that I believe we have gone as far in reducing NASA's budgetary requests as we safely can. Any across-the-board cuts of the committee's recommendations, any indiscriminate actions or economy moves to cut more and more merely because this is a large budget request would, in my opinion, not only be unwise but foolhardy.

Now, Mr. Chairman, I am certainly one who does not need to be reminded of the tremendous cost of the space program. After all, I live with this subject on a daily basis and I will repeat what I said on the floor last year when the 1963 authorization request was being considered. This request is only a part of the overall 10-year program designed to eventually land men on the moon and accomplish their safe return to earth. But the decision has been made on behalf of the Nation to accomplish this within the decade and if we are to be successful in the program, we must be prepared to pay the price. That decision was reemphasized by this House last year when it authorized approximately $3.7 billion for NASA by unanimous vote.

But we must not overlook the other areas covered by this bill. This is not just a lunar program, but one that will give tangible benefits to all mankind. Satellites for communication, weather, navigation for scientific experiments are covered by the funds requested in this bill.

We must also recognize the significance and impact the space program is having and will continue to have on our domestic program. Consider, if you will, the economic and technological developments, the advances in science, knowledge, and the effect on education. All of these are direct fallouts from our space programs.

In addition, I want to make it crystal clear that we have not overlooked our national security programs. Actually, we have little choice but to explore space. We must conquer it to insure our own national defense, for I am certain that as sure as I stand in the well of this House, there is not a Member of this body who would not agree that if we do not pursue a vigorous and calculated and successful space program, other nations will do so. And if we allow a potential enemy to control space because of our inability or our reluctance to get on with the job, it will bring down on our citizens the most serious national defense consequences.

I recognize there are some who feel that more emphasis should be placed on military space programs but NASA's charter—the National Aeronautics and Space Act—provides that NASA will proceed with the exploration of space for peaceful purposes and there can be no question of the tremendous value to the military of NASA's peaceful space operations.

Now, since NASA is engaged in efforts to probe outer space, we must also remember that it is not NASA's responsibility to compete with other governments. NASA does not establish its schedules and programs in order to compete with the Soviet Union, and we are not here asking for these funds in order to establish a crash program to place men on the moon and return them safely to earth. Although this is an expensive program, it is in no sense a crash program.

On the other hand, NASA has very carefully laid out a 10-year program, and although we cannot be oblivious to the accomplishments of the Soviet Union in space, this program is not geared to attempt to duplicate everything done by the Soviet Union.

Mr. Chairman, I recognize there is a wide variety of opinion concerning the lunar program. There are highly respected scientists who have differences of opinion concerning the program. Some say that we should not attempt to land men on the moon at this time but that landing instruments would serve the purpose. Other well-intentioned people say, "Why go to the moon at all?" The pessimism of those who seek to downgrade our efforts for a lunar landing remind me of the days in the early part of the last century when Americans were wondering what to do about the vast desert wasteland that lay beyond the Mississippi. One only has to read our history to see what one of our greatest statesmen, Daniel Webster, had to say about exploring the West. Permit me to quote this far-sighted Senator when he said, on the floor of the Senate:

> What do we want with this vast, worthless area, this region of savages and wild beasts, of shifting sands and whirlpools of dust, of cactus and prairie dogs?
>
> To what use could we ever hope to put these great deserts or those great mountain ranges, impenetrable and covered to their base with eternal snow?
>
> I will never vote 1 cent from the public Treasury to place the Pacific coast 1 inch nearer Boston than it now is.

And I happen to be reading President Truman's memoirs the other day and I ran across this passage:

> The next day Jimmy Byrnes, who until shortly before had been Director of War Mobilization for President Roosevelt, came to see me, and even he told me few details, though with great solemnity he said that we were perfecting an explosive great enough to destroy the whole world. It was later when Vannevar Bush, head of the Office of Scientific Research and Development, came to the White House, that I was given a scientist's version of the atomic bomb. Admiral Leahy was with me when Dr. Bush told me this astonishing fact. "That is the biggest fool thing we have ever done," he observed in his sturdy, salty manner. "The bomb will never go off, and I speak as an expert in explosives."

Mr. Chairman, I merely call these matters to your attention to show that history bears out that even some of the greatest minds of their time lacked foresight. We must not make this error.

We must have the foresight that some of our own great minds of this century apparently lacked.

The road will not be easy. We will make mistakes. It will be expensive. But there should be no turning back. We must not slack the tempo. We must not duplicate that which has been done in our military so often. Large appropriations one year, small appropriations the next. Large forces one year, small forces the next. Up and down, feast or famine.

Now we have set the course. We know what we must do. Let us get on with it.

Finally, Mr. Chairman, I would like to say that the proposed reductions by the Science and Astronautics Committee in the NASA budget should in no sense be regarded as reflecting a lack of confidence in NASA's people, their performance, or their programs. Their repeated successes in the new, vastly difficult and uncharted exploration of space have been most impressive and have had, in our opinion, a very salutary effect on this country's world prestige.

We appreciate the dedication of the many NASA people supporting the national space program in devoting many extra hours to ensure the repeated space successes which we have had. The well-publicized space shots are only the culmination of the tedious process of development. Even so, our space shots often seem to take place at the oddest hours of the day or night. The people of NASA have cheerfully accepted such inconveniences in the knowledge that they were contributing to a program enhancing this country's standing as a leading spacefaring power. The committee supports, and I believe it reflects the sentiments of the House, the efforts of the dedicated NASA people striving to push forward the frontiers of space.

Our committee's action on the NASA budgetary program has rather reflected our feeling that it is maturing and stabilizing after the initial period of rapid growth. In this current phase, the program can be established on a firm basis from which it can push on to new space successess redounding to this country's reputation for vitality and ingenuity. In this period, we feel that NASA can take stock of the progress it has made in the space program, and how best to push ahead efficiently and expeditiously, but economically toward the Nation's space goals. A continuing management examination of the space program is essential in order to take advantage of fresh knowledge of this new frontier which becomes available only through experience.

If, after further experience and added careful reexamination, NASA decides that vital current programs have been adversely affected by congressional actions, the committee will be receptive to well-documented suggestions for supplemental funding.

Moreover, the committee is always receptive to NASA's ideas for well-conceived, solidly planned and thoroughly coordinated new programs aimed at advancing the country's primacy in space. New space projects there should be. The space program is a growing feature and, I believe, a permanent feature of our economy. New projects should be planned and administered so as to make the most economical use of our national resources. The space program is now grown up and should be able to meet the test of competing for scarce resources on the basis of the overall national interest. We can afford all that is needed, but not one cent more.

Before closing, may I pay my respects and my tribute to the 30 other members of the Committee on Science and Astronautics who worked so diligently through the long period of time to bring this bill to the floor. I think if you will look at the books that constitute the hearings on this bill, and if you have time to go through them, you will find that a thorough workmanlike job was done.

I want also to congratulate the staff, the technical staff of the committee for a job well done.

Mr. FASCELL. Mr. Chairman, will the gentleman yield?

Mr. MILLER of California. I yield to the gentleman.

Mr. FASCELL. I thank the distinguished chairman of the committee handling this bill before this body today for yielding. I compliment the gentleman on his remarks particularly for laying out very clearly the policy guidelines for the consideration of this program. I think this is very important and it is a wonderful precedent to set in the consideration of measures of this kind.

I would also add my congratulations to the committee members as well as to the staff for the oversight exercised by this committee on a program which is burgeoning as fast as this one is.

If the gentleman will yield further, the concern I have in the questions I am about to ask the gentleman is regarding the large engine—that is the 156-inch and 260-inch engine solid fuel propellant program. Am I correct that sometime ago a very difficult matter was resolved in an agreement involving NASA requirements and military requirements; and that with respect to these particular engines the 156-inch and the 260-inch, using solid propellant, the Air Force was given responsibility for research and development contracts?

Mr. MILLER of California. That is correct.

Mr. FASCELL. Am I correct that in this bill there is no authorization for this particular type of program?

Mr. MILLER of California. That is correct.

Mr. FASCELL. Am I further correct in stating that under the agreement which was previously reached, the Air Force did negotiate contracts for the development of 156-inch and 260-inch solid fuel propellant engine?

Mr. MILLER of California. Because of our great interest in this, we have no immediate problem or use for this engine, but as a standby, and as one possibility of the future, we are greatly interested in it; and what the gentleman says is correct. The Air Force was given the responsibility of developing the big, solid booster engines.

Mr. FASCELL. If the gentleman will be kind enough to yield further, to develop this point: Reference has been made recently that under the previous Department of Defense appropriation bill, which passed the House and which is now pending in the other body, because of the roughly 3 percent cut which was made, that one of the programs which will be eliminated or will suffer a reduction as a result of this cut, is this particular program of the 156- and 260-inch solid fuel propellant program.

In other words, it is being made quite clear that because of higher military requirements that this NASA requirement may not be met. Mr. Chairman, all of this, notwithstanding that the President, in his message to Congress in May of 1961 stated that there would be an accelerated program to investigate large solid rockets, and on January 28, 1963, stated that the development of large solid propellant motors which diameters of 156 inches and 260 inches are being investigated; and notwithstanding that the Secretary of Defense proceeded to undertake a program for the large solid 260-inch rocket; and notwithstanding that the Air Force earlier this year solicited competitive proposals from industry, and as a result of the competition has completed negotiations on contracts to perform feasibility demonstrations.

The 156-inch motor is the largest segmented solid propellant motor capable of rail transportation from current production facilities to coastal launching sites. The 260-inch motor may demonstrate the feasibility of very large monolithic motors and provide technical foundations for further developments. Development of this large motor will also provide pertinent background data and procedures and processes for fabrication, propellant production, and handling, testing and facility requirements.

It seems to be very important to the country's future in space that this feasibility investigation into very large solid rockets go ahead with full vigor. Events of the last few years have graphically demonstrated that large booster capability is a vital keystone in a strong national space program. Considering the outstanding success of the solid fueled Polaris and Minuteman, it would seem most important to determine the feasibility of this type of propulsion for the large space booster of the future.

There may be a discussion as to whether there is a military requirement at the present time for that program, but it is obvious, since contract negotiations have been completed that there is for deep space probes a very definite requirement of NASA for these large engines with solid propellant.

Mr. MILLER of California. The gentleman is correct.

Mr. FASCELL. And if the gentleman will yield one step further: the Air Force has already selected the contractors for this program and the companies Thiokol and Aerojet General have invested millions and millions of dollars for this program. If the Air Force were to terminate or cut back this program, does the chairman have in mind that his committee would take up the fight for and support the continued authorization, and the funding of this program for the needs and the requirements of NASA?

Mr. MILLER of California. It is my intention to bring this to the committee when it has been definitely established that the Air Force is going to terminate those contracts. I had the privilege of being out at San Jose, Calif., in my good friend's district, the gentleman from California [Mr. GUBSER] along with my distinguished colleague, the gentleman from Connecticut [Mr. DADDARIO] about 10 days ago when the first big solid booster, the 120-inch booster, was fired, developing about 1 million tons of thrust and fulfilling all of the requirements that were set up for it. It was highly successful. I said at that time that I was going to talk to Mr. McNamara to determine whether or not this has been cut. If it has been cut, I am going first to the Space Council and then through the committee to see what can be done in restoring it.

We need this alternate-type booster. It has great potentialities. That is what I meant to imply in my opening statement when I said that we could not allow this program to get into the same doldrums that the defense programs sometimes get into, when it is peaches and cream one day and dry bread crust the next.

Mr. DADDARIO. Mr. Chairman, will the gentleman yield?

Mr. MILLER of California. I am glad to yield to the gentleman from Connecticut.

Mr. DADDARIO. I would like to add that the gentleman from Florida [Mr. FASCELL] has raised an extremely important point; that the program involving the solid propulsion techniques which was to be developed through the 120-, 156-, and 260-inch motors and if properly supported is one which will give us a propulsion capacity which will serve us in the years ahead.

I had been somewhat concerned about the need of having three programs of this kind including varying sized boosters. But I was advised by the people who have been developing the 120-inch system to which the chairman of the committee has referred, that the knowledge which can be obtained from the 120-inch will not satisfy the increased technological and scientific knowledge which can come through a 156-inch and 260-inch program.

Mr. Chairman, it seems to me that the concern of the gentleman from Florida [Mr. FASCELL] is well founded and that this program should go ahead.

Mr. FASCELL. Mr. Chairman, will the gentleman from California yield further?

Mr. MILLER of California. I yield to the gentleman from Florida.

Mr. FASCELL. I am grateful, extremely grateful, for the assurance which the chairman of this committee has given us and I am grateful for the remarks which have been made by the gentleman from Connecticut. I regret that there

is any discussion that there may be a military determination that they do not have, do not want or could not use these large solid propellant engines for immediate military requirement and that NASA requirements would suffer as a result.

Mr. Chairman, I am delighted to hear that the chairman of this committee intends to pursue the matter to the Secretary of Defense level, and higher, if necessary, so that the 156-inch and 260-inch engine, solid propellant program previously authorized, in the process of being funded and for which contractors have been selected will not be cut back or terminated.

Mr. EDMONDSON. Mr. Chairman, will the gentleman yield?

Mr. MILLER of California. I yield to the gentleman from Oklahoma.

Mr. EDMONDSON. I merely want to join others in this body in congratulating the distinguished chairman of this committee and the very able members of this committee for an outstanding job and for a most comprehensive report which gives to all of us a fine picture of our space program.

I think the members of the committee have contributed in a very significant way to the leadership which our Nation occupies in the race for space.

Mr. Chairman, I certainly want to commend them for the long hours and hard work which they have given to this task.

Mr. Chairman, I particularly appreciate the leadership of this great committee in the all-important matter of high energy propellants and accelerated development of engines utilizing high-energy fuels.

The language of your report, at page 194, is emphatic on this point:

> If NASA is to meet the demands of future mission requirements, it will be vitally necessary for its program of research in high-energy chemical propulsion to be accelerated as early as possible. The committee feels that such research and development should be concentrated in the area of such high-energy propellants as boron, diborane and fluorine compounds.

The committee action in providing funds to assure such acceleration is continued evidence of a congressional determination to make as certain as possible American preeminence in space, which could be as vital to our future security as preeminence of American airpower and seapower has been in the 1940's and the 1950's.

Mr. FULTON of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. MILLER of California. I yield to the gentleman from Pennsylvania.

Mr. FULTON of Pennsylvania. Mr. Chairman, I would like to compliment the chairman for the very fine statement he has made, I further would like to compliment the gentleman from Florida [Mr. FASCELL] for his position in connection with the solid-fuel booster which we badly need, and what this program should have when you look at the greater requirements for a larger booster. The solid-fuel field should not be overlooked and should not be closed down by action of one Government department. This committee, the last time we had the solid-fuel booster programs up for consideration, increased the request of NASA by $10 million. So we gave them more money than even NASA requested by emphasizing the solid-fuel boosters.

Mr. Chairman, I yield such time as he may desire to the former Speaker of the House of Representatives, one of the very fine members of our Science and Astronautics Committee of the House, and our genial friend, the gentleman from Massachusetts [Mr. MARTIN].

Mr. MARTIN of Massachusetts. Mr. Chairman, I am very happy to be associated with the Committee on Science and Astronautics in support of the pending legislation. I have been a Member of this House for many years, as you all know, and I can vouch for the thorough and careful consideration given this bill.

I am very happy to be a member of this committee. One of the real pleasures of my long legislative service is my association with this committee. I never saw a better committee, a more diligent, a more dedicated committee than is the present Committee on Science and Astronautics. In the past I have been accustomed to being forced to drum up quorums. That is not the case with this committee. The committee is ready to start the minute the gavel of the chairman falls. That is a stimulation to me, and most encouraging.

I have also noticed, Mr. Chairman, that the members of this committee dig very deeply into their subjects. They know their subject thoroughly and they come prepared to answer questions; nor do they take things for granted. They must be shown and vigorously question the witnesses.

So I am glad to be associated with this bill. It is a good bill, not all that everyone wants, but on the whole it is a progressive piece of legislation; one that will insure that America will maintain its place in the battle for control of space.

Mr. Chairman, we are very fortunate in having the gentleman from California [Mr. MILLER] as chairman of this committee. He is not a bitter partisan, which is another thing I like about the committee. It is not a partisan committee. They give equal treatment to all, no matter what party may be involved. The decisions are fair and impartial. The gentleman from California [Mr. MILLER] has always been fair and generous, and he is a good leader.

I also want to congratulate the acting minority leader of the committee. I call him such although he really does much of the work for which I get the credit. I refer to the gentleman from Pennsylvania [Mr. FULTON]. He is a dedicated student of this subject and we are very fortunate on the Republican side to have such a man as a member of the committee.

Mr. Chairman, there will probably be some criticism, one of which comes to my mind at the moment involving the location of a research laboratory. This emphasizes the fairness of the committee. The bill does not bar a single community in the country from presenting whatever claims it desires. We gave everybody what I consider is a fair chance. So I think this is a well-rounded-out bill. It gives everybody a chance on merit and without political pull.

I know this is a lot of money, and I know what money is, because I started at the bottom and fought my own way up. I have had to work my way from boyhood and I know the value of money. I would not spend it unless I believed it was a good gamble. When you get into this space effort, of course, you are making a gamble. I do not know how much money is going to be needed for this. This may not be enough. However, I know it will keep everything moving properly and I know that we will not lose out.

Some people complain because we are not military minded enough in this Legislature. I am not a military man. I want civilian life to have the full benefits of anything that comes out of this and I know that the military will not be neglected, because, as this program unfolds its advantages we do not want to sacrifice anything and we want all to benefit, military as well as civilian—the United States and all of its people. I am not worried over that. I am worried more over what the country and the world might think if we fail to pass this measure. This battle has been faced and it is still going on. The only question is, Are we going to keep America up where it belongs in that fight? I recall some of our committee members saying that we were up in orbit because we recommended an extremely large sum. Well, my friends, they called the Wright brothers a couple of nuts, but that did not stop them. They went on with what they had to do. They followed through, and America won the First World War in large measure through the development of the airplane. So how do we know what is going to develop from the space bill?

I am supporting the bill because I am an American. I am supporting it because I believe it is to the interest of my country. As a matter of fact, I do not think the question is whether we should pass this bill or not. I think the question that a man must answer to himself is, "Can I afford not to pass it? Can I afford not to give the administration a chance to keep the American flag up in the forefront?" Such little things as where a few people or a few installations are placed are, after all, minor things. They will be evaporated in the space of time. I will be frank enough to say that I hope that this survey which they are going to make of this installation will be supported by the scientists and they will agree it should be in New England. However, I would not want it there if it were not for the benefit of the whole country. That is what we are looking for.

The fact that they have to do this all over again, make another recommendation and then come back to the Congress is another point; that is, come back to the Congress instead of to the committee. You are not going to find anyone who knows more about this subject than the Science and Astronautics Committee. That is the committee to which it should come back, because it knows what it is

all about and can make a proper proposal.

So, Mr. Chairman, let us pass this bill as it is; perhaps not as it is, because there may be some amendments to correct it. But the point is to pass the bill, a proper space bill and keep the American flag up front.

Mr. ROUSH. Mr. Chairman, I ask unanimous consent to extend my remarks at this point in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from Indiana?

There was no objection.

Mr. ROUSH. Mr. Chairman, the concentration of the space and defense industries on the east and west coasts of this country has been a matter of great concern for those of us living in the Midwest.

A recent publication entitled, "A Report on Economic Growth in the Midwest," published by the Committee on Institutional Cooperation, points out that the Midwest has suffered heavily in the placement of prime military contracts since the Korean war. Our States have suffered heavy losses as indicated by the following figures:

In Michigan the percentage of total awards went from 9.5 to 2.7 percent; in Indiana, 4.5 to 1.46 percent; in Illinois, from 5 to 2 percent; in Ohio, from 6.3 to 4.5 percent; and Wisconsin, from 2 to 1 percent.

A major reason for this geographic shift is that greater emphasis is placed on the missile industry and the electronics industry and, more particularly, for research, development, testing, and evaluation. While California was receiving 41 percent of such RBT and EX contracts in 1961 and New York was receiving over 12 percent and Massachusetts nearly 6 percent, Indiana was receiving only 0.5 percent.

The question why has been asked of Defense Department and NASA officials on many occasions. Dr. Robert Seaman, in testifying before our committee, claimed that one of the main reasons for the location of the proposed electronics research center near Boston was that there was a concentration of scientists and engineers in the Massachusetts area. Dr. Jermone B. Wiesner, the President's special assistant for science and technology, stated that the reason for diverting defense contracts away from the Midwest was that there was "an intellectual vacuum" in the Midwest. We take serious exception to these statements; and I would like to call, as forcibly as possible, to the attention of NASA and the Defense Department officials the following facts:

First. Midwestern schools—Illinois, Purdue, Michigan, Wisconsin, Ohio State, and Northwestern—granted nearly 30 percent of all the Ph. D. degrees in engineering in the United States.

Second. Some half dozen schools, including Illinois, Purdue and Michigan currently account for over half the doctorates in engineering in the United States.

Third. Purdue, Illinois, and Michigan combined grant nearly as many masters degrees—926—as Massachusetts Institute of Technology, Stanford, and the University of California at Los Angeles combined—7,045.

Fourth. Purdue, Illinois, and Michigan grant more bachelors degrees in engineering than all the University of California's campuses combined and Massachusetts Institute of Technology, California Institute of Technology, Stanford, and New York University. Purdue and Illinois rank first and second in the Nation in output of B.S. degrees in engineering.

It would seem to me that the contention that the scientific and engineering talents are concentrated on the two coasts is not valid. The Midwest is engaged in exporting scientific and engineering talent on a major scale.

A major effort should be made to distribute our activities over the country so as to not only provide additional security for this very sensitive activity but also to more equitably affect the economy.

Mr. MILLER of California. Mr. Chairman, I yield 5 minutes to the gentleman from Texas [Mr. WRIGHT].

Mr. FULTON of Pennsylvania. Mr. Chairman, will the gentleman yield to me for a comment on a speech by the gentleman from Massachusetts [Mr. MARTIN]?

Mr. WRIGHT. I yield to the gentleman.

Mr. FULTON of Pennsylvania. I want to say at this point that the Members all feel we were very much helped by the comments of the distinguished gentleman from Massachusetts, Speaker MARTIN, because he put his recommendations on such a high level. It is always a pleasure to have our Speaker give us guidance and light on the committee. We thoroughly appreciate his comments.

Mr. WRIGHT. Mr. Speaker, I ask unanimous consent to revise and extend my remarks and to speak out of order.

The CHAIRMAN. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. WRIGHT. Mr. Chairman, the personal honor and integrity of the Secretary of the Navy were attacked on the floor of the House today. In good conscience I cannot allow this to go unanswered. Earlier, during the debate on the rule, the gentleman from Iowa obtained permission to speak out of order and in the course of his remarks said that Secretary of the Navy Fred Korth had engaged in a clear conflict of interest and called on the President of the United States to fire Secretary Korth.

Mr. Chairman, in a situation of this kind a Member is always in a quandry as to whether he should consider the source and let it drop, or whether in good conscience and good honor he must defend his friend, his constituent, an honorable officer of the U.S. Government.

Mr. Chairman, in 10 years in the U.S. House of Representatives I have never impugned the integrity or the personal honor of any Member of this House or of any member of our President's Cabinet in the previous administration or in this administration, nor would I permit it to be done in my presence if within my power to prevent it.

Fred Korth not only is my constituent, he is my friend. I know him and know him well. I know him as a man of deep personal honor. I know him as a man of sterling patriotism. I know Fred Korth as a profoundly sincere Christian man. And for his honor to be attacked on the floor of the House in such an intemperate way must not go unanswered.

Today Fred Korth is giving tirelessly of his efforts, of his time, of his talents, in answer to the call of his country.

Mr. GROSS. Mr. Chairman, I demand that the gentleman's words be taken down.

The CHAIRMAN. What words does the gentleman from Iowa demand be taken down?

Mr. GROSS. That the gentleman from Iowa made an intemperate statement.

Mr. WRIGHT. Mr. Chairman, permit me to suggest——

The CHAIRMAN. The gentleman will suspend temporarily.

Mr. WRIGHT. Mr. Chairman, may I be recognized for a unanimous-consent request?

The CHAIRMAN. The Clerk will report the words that the gentleman demanded be taken down.

Mr. COOLEY. Mr. Chairman, a parliamentary inquiry.

The CHAIRMAN. The gentleman will state it.

Mr. COOLEY. Why cannot the gentleman who has the floor ask unanimous consent to amend the words he has uttered?

The CHAIRMAN. He may do so if he desires.

Mr. COOLEY. He wants to be recognized for that purpose but he has not been recognized.

The CHAIRMAN. If the gentleman wants to submit a unanimous-consent request the Chair will recognize him for that purpose.

Mr. WRIGHT. Mr. Chairman, I ask unanimous consent that the word "intemperate" as used to describe the remark of the gentleman from Iowa be stricken, and that I may substitute for the word "intemperate" the word "unfortunate."

The CHAIRMAN. Is there objection to the request?

Mr. GROSS. I object to that, Mr. Chairman.

The CHAIRMAN. Ojection is heard.

The Clerk will report the words objected to.

The Clerk read as follows:

Mr. WRIGHT. And for his honor to be attacked on the floor of this House in such an intemperate way must not go unanswered.

The CHAIRMAN. The Committee will rise.

Accordingly, the Committee rose; and the Speaker having resumed the chair, Mr. THOMAS, Chairman of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H.R. 7500) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and administrative operations; and for other purposes, certain words used in debate

were objected to and on request were taken down and read at the Clerk's desk, and he herewith reported the same to the House.

The SPEAKER. The Clerk will report the words objected to.

The Clerk read as follows:

Mr. WRIGHT. For his honor to be attacked on the floor of this House in such an intemperate way must not go unanswered.

The SPEAKER. The Chair feels that in debate latitude should be given to Members of the House in expressing their views; and the Chair would construe the word "intemperate" might be used just as the word "improper" might be used.

Therefore, the Chair is of the opinion that the language used is not objectionable under the rule.

The Committee will resume its sitting.

IN THE COMMITTEE OF THE WHOLE

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the further consideration of the bill, H.R. 7500, with Mr. THOMAS in the chair.

The CHAIRMAN. The gentleman from Texas is recognized.

Mr. WRIGHT. Mr. Chairman, I have tried to proceed in a most temperate way, circumstances permitting. But there can be no constructive excuse whatever for the futile flutter of personal vilification by which a little handful of self-appointed critics have been straining at gnats in a weak effort to attack the integrity of Secretary Korth. Only by the most tortured logic could anyone assess impure motives of personal financial gain to Secretary Fred Korth in connection with any contract for the General Dynamics Corp. Certainly, Mr. Korth owns no stock in that corporation; he sells no supplies to that corporation; he has never been on its payroll in any way.

To contend, as has been contended, that he would have a personal financial interest in the awarding of a contract simply because the recipient corporation at one time borrowed funds from a bank with which Mr. Korth formerly was employed, is extremely farfetched. One might as reasonably question the honor of a public official on the ground that his cousin might own stock in a vending machine corporation which sold cigarettes to the workers in a plant of another corporation where a contract was given. It is entirely farfetched.

In order for anything meaningful to be made of these circumstances, we would have to indulge two extremely untenable assumptions. The first, of course, would have to be that Fred Korth himself, as a man and as a human being, is fundamentally dishonest and is serving his Government for the purpose of his personal financial gain. This clearly is disproven by the fact that he is making a considerable financial sacrifice to serve his country as Secretary of the Navy. He is making considerably less money than he was before he accepted that responsible post.

The CHAIRMAN. The time of the gentleman from Texas has expired.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 1 minute to the gentleman inasmuch as part of his time was taken up.

Mr. WRIGHT. Now the second assumption would have to be this.

Mr. STINSON. Mr. Chairman, will the gentleman yield?

Mr. WRIGHT. No, I do not yield at this time. There are some things, I think, which need saying.

Mr. Chairman, the second assumption would have to be that this huge corporation with holdings all over the country was going to welsh on that loan if it had not received that particular contract. This corporation has never defaulted on an obligation and has a net worth fully ample to justify loans many times the amount of the one in question, and this is such a farfetched conclusion that it is utterly beyond reason to discuss it.

But the serious question, it seems to me, is—how are we going to attract the services of decent, honorable, and able administrators to serve this Government of the United States at a financial sacrifice if, when they do so, we then subject them to the personal harassment, the partisan vilification, and abusive charges against their personal honor and integrity? This, I think, is a serious question.

I think, Mr. Chairman, that the House and the Congress indeed would do well to bridle its own tongue and to exercise some sense of self-restraint in the things it says about the leaders of our Government.

The CHAIRMAN. The time of the gentleman has again expired.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 1 minute to the gentleman from Washington [Mr. STINSON].

Mr. STINSON. Mr. Chairman, I ask unanimous consent to proceed out of order in order to ask a question of the gentleman from Texas [Mr. WRIGHT].

The CHAIRMAN. Is there objection to the request of the gentleman from Washington?

There was no objection.

Mr. STINSON. I would ask the gentleman from Texas if he is familiar with the hearings that are being held by the Senate Government Operations Committee wherein testimony has been received to the effect that the bank in Texas in which Secretary Korth has served as an officer had loaned several hundred thousand dollars to the General Dynamics Corp.? And did the gentleman know that Secretary Korth has retained his stock ownership in this bank after he has become the Secretary of the Navy?

Mr. WRIGHT. I would say to the gentleman from Washington, first, that I am quite familiar with this testimony and that this is exactly what I was addressing my remarks to earlier. I think it is far-fetched and has no connection. I know Secretary Korth stands to make no personal financial gain by the widest stretch of the imagination. If the TFX contract had not gone to the corporation, it still would have paid the note to the bank. This corporation owns, in addition to the Fort Worth plant, several other successful enterprises including Electric Boat Co., and has built several big plants on the west coast. I say to the gentleman that it would be nothing short of ridiculous to assume that this bank loan was ever in any way in danger of default, or that it ever would have had any remote bearing whatever upon Secretary Korth's decision on the TFX contract. That decision was based on comparative technical evaluations which Secretary Korth very fully and adequately set forth in the hearing to which the gentleman refers.

The very same decision was reached by Secretary Zuckert and Secretary McNamara. They certainly could not be said to have been influenced by any loan made to anyone by this bank. Neither was Fred Korth.

The CHAIRMAN. The time of the gentleman from Washington has expired.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield the gentleman 1 additional minute.

Mr. STINSON. Does not the gentleman think there is a possibility that Mr. Korth's objectivity might not be quite the same as if he did not hold stock in this particular bank? Do you not think this bank would tend to lose a great deal if the General Dynamics Co. was unable to acquire this contract?

Mr. WRIGHT. Well, I certainly do not. I know Fred Korth and I am quite sure his objectivity was not in any way compromised by this fact. Furthermore, I think the gentleman draws an utterly unwarranted conclusion when he thinks that the bank was going to suffer if the company did not get that particular contract. The company would have paid its note whether or not it had received that contract, or any other of a dozen contracts. The company is quite solvent. I think the two contingencies are utterly disconnected. The Continental National Bank of Fort Worth also is a thoroughly solvent institution. This is only one loan out of many thousands which it has made. And, further, to assume that a gentleman of the character and of the stature of Fred Korth, who is big enough to be Secretary of the Navy, would let a matter of this kind interfere with his judgment as to what is best for the United States, would be far too petty for words. Fred Korth is amply big enough to make up his mind and use his best judgment regardless of a small matter of that kind. If he were not, he would not be big enough to be Secretary of the Navy in the first place.

Mr. MILLER of California. Mr. Chairman, I yield 15 minutes to the gentleman from Texas [Mr. TEAGUE].

Mr. TEAGUE of Texas. Mr. Speaker, I would like at this time to pay a brief but sincere tribute to each of the members of the Subcommittee on Manned Space Flight, with whom I had the pleasure of working this year as subcommittee chairman.

The members of the subcommittee are the Honorable EMILIO Q. DADDARIO, Hon. JAMES G. FULTON, Hon. BOB CASEY, Hon. R. WALTER RIEHLMAN, Hon. JOE D. WAGGONNER, JR., Hon. RICHARD L. ROUDEBUSH, Hon. EDWARD J. PATTEN, Hon. ALPHONZO BELL, Hon. DON FUQUA, and Hon. EDWARD J. GURNEY.

This subcommittee has worked as hard on the current NASA authorization bill as any group I have witnessed in my years in Congress. Each of them has

been digging into the complex problems of manned space flight since early in the year, and each has gone without letup right down to the present day. They have been at it morning, noon, and night. They have traveled thousands of miles in order personally to visit each of NASA's centers which is concerned with manned space flight. Their efforts to familiarize themselves with all aspects of the program at the working level have been unstinting.

It has taken 1,500 printed pages of testimony to record the hearings held by the subcommittee, and even that does not tell the whole story. For, in addition, many weeks of hard work have been spent in executive session in making decisions regarding this very important national program.

I feel constrained to say also that the work of the subcommittee has been completely bipartisan and nonpolitical. There has never been a time when any member of the subcommittee put the interests of his party or his district ahead of the national interest. Neither has any member sought to subvert or alter the goals of the national space effort for selfish or partisan reasons.

Mr. Chairman, I would like the record to show that I have the highest admiration and regard for the subcommittee and for the work they have turned out. I sincerely believe it to be a dedicated effort which has few parallels in recent history.

Finally, I cannot close these comments without a note of tribute to the chairman of the full committee, the Honorable GEORGE P. MILLER. The gentleman from California [Mr. MILLER] acted in my judgment with complete fairness and permitted the subcommittees all necessary time and latitude to do the job required of them. His counsel and patience have been instrumental in getting the job done.

Mr. Chairman, the Manned Space Subcommmittee had the responsibility of the money that goes to the installations at Huntsville, Ala.; at Cape Canaveral, Fla.; at the Mississippi Test Center, as well as the plant which is located in New Orleans; and the installation at Houston, Tex. Under these installations come a number of programs; namely, the Mercury program, the Gemini program and the Apollo program.

Our Mercury program is completed and of course it was completely successful. Certainly all America owes a great debt of thanks to the entire Mercury team that made it so successful.

Mr. Chairman, we have recently seen the completion of America's first man-in-space program—the pioneering and highly complex Project Mercury. This has been a completely successful undertaking, and the remarkable thing about it is that it was accomplished virtually on schedule and with less than 5-percent cost overrun.

Few research programs can show such a record.

The Mercury project did not begin in earnest until 1960. After the first shot showed that the Atlas missile would have to be strengthened and modified to handle the 3,500-pound Mercury capsule, the story of Mercury proceeded without a major hitch.

Eight successive shots went off very close to schedule and each accomplished its designed mission. The fourth Mercury shot carried Astronaut Alan B. Shepard on a 15-minute suborbital flight in May 1961. Two years later, the ninth and last of the Mercury flights carried Astronaut Gordon Cooper around the world 23 times in 32 hours.

This, I believe, is a truly fine accomplishment.

It is especially so since Project Mercury first, demanded the complete coordination of a worldwide communications and recovery network in addition to performing a most difficult engineering task; and second, since the basic know-how developed in the course of Project Mercury is essential to the success of the follow-on programs—Project Gemini and the manned lunar landing program itself.

Mr. Chairman, those of us who have been close to these programs for a number of years realize how much has been accomplished in an area which at times appears to be virtually impossible.

I would like to extend the highest commendation to all members of the Mercury team beginning with D. Brainerd Holmes, the retiring Director of the Office of Manned Space Flight, who was the chief overseer of this program—and including Joseph F. Shea, Deputy Director, Systems, Office of Manned Space Flight; George M. Low, Deputy Director for Programs at NASA; Mr. William E. Lilly, Director, Program Review and Resources Management, Office of Manned Space Flight, NASA; Dr. Kurt H. Debus, Director, NASA Launch Operations Center, Cape Canaveral; Dr. Robert R. Gilruth, Director, NASA Manned Spacecraft Center, Houston, Tex.; Mr. Walter C. Williams, Associate Director, NASA Manned Spacecraft Center, Houston, Tex., and many others who played equally important roles in the success of Mercury.

Of course these compliments extend also to the hard and devoted work of the astronauts themselves and particularly to the seven original astronauts, Comdr. Malcolm S. Carpenter, Maj. L. Gordon Cooper, Col. John H. Glenn, Jr., Maj. Virgil I. Grissom, Comdr. Walter M. Schirra, Comdr. Alan B. Shepard, Jr., and Maj. Donald K. Slayton.

Finally, I cannot overlook the contributions of Dr. Wernher von Braun, head of the Marshall Space Flight Center at Huntsville, Ala. While Dr. von Braun was not directly associated with Mercury, it has been his work in rocket engines and techniques which has been responsible to a considerable degree for the reliability of equipment used in the Mercury project.

Mr. Chairman, I asked permission earlier in the day to bring these models and exhibits onto the floor of the House in order to give the membership a better feeling of what is going to happen in our manned space program in the next few years.

The small model on your left is the Atlas which placed the Mercury capsules in orbit. The Mercury capsule weighs approximately 3,000 pounds.

The next model is of the Saturn, which will place approximately 22,000 pounds in earth's orbit.

The next model is the Saturn 1-B, which is due to place about 32,000 pounds in earth's orbit.

Then there is the giant Saturn V which will place 240,000 pounds in earth's orbit and 90,000 pounds into outer space.

Mr. Chairman, our subcommittee has divided its programs among members of the subcommittee who will speak individually about these programs.

The gentlewoman from New York made a very appropriate remark in the fact that we have no scientists in Congress. Because of that fact our subcommittee went to the different companies involved in this program. We questioned every witness we could think of that might contribute to our coming to a better decision as far as the House is concerned. I am sure that some of our scientists and engineers became more frustrated over the hundreds and hundreds of questions that we threw at them, than the space frustration.

Our committee—I am sure I can speak for all of them—had a tremendous interest in the whole Mercury program. We had to take much of the matter submitted and base it on faith in this group of men, but I would like to assure you this subcommittee has done everything it could possibly do to learn the truth of this program. We have made some reductions, some deferrals, but we do not think they are going to cripple the program.

I hope the House will accept this bill as the committee has reported it.

Mr. Chairman, the manned space flight portion of this fiscal 1964 budget is the largest yet presented to Congress. As you can see from the report, it comes to $3.2 billion—which is roughly about $1 billion more than was authorized last year.

This is an overall figure and includes funds for the construction of facilities and costs related thereto, as well as for research and development.

Before proceeding further, I would like to take a moment to try to dispel several extreme notions that a lot of people have about our man-to-the-moon program.

One of these notions is founded on the allegation that we are proceeding on a crash basis, that we are thereby spending a lot more money than we otherwise would need to and are greedily consuming the bulk of the Nation's scientific talent in the process.

The other notion is based on the allegation, which we have recently heard from NASA's Administrator, that the amount of money requested for the manned lunar landing is a sacrosanct bare minimum which must be left totally intact if we are not to slip badly in our lunar landing schedules and lose money in the bargain.

In my opinion, neither of these allegations will win any awards for accuracy. Let me explain why I think this.

The Subcommittee on Manned Space Flight, which I serve as chairman, has been investigating the manned flight part of the 1964 space budget ever since the 1st of March.

During this period the subcommittee held 33 open hearings plus 12 executive sessions; it took testimony from more than 100 witnesses. This included, in addition to NASA witnesses, those from other Government departments such as the Defense Department and the Air Force, from half a dozen industrial organizations, from the National Aeronautics and Space Council and from the astronauts themselves.

At the same time, the subcommittee traveled as a group for discussions with those most concerned with doing the actual work on manned space flight throughout the country. This meant meeting with both industry and government people in the Los Angeles area, in Sunnyvale, at Edwards Air Force Base, at Cape Canaveral, at Daytona Beach and at Houston. In addition, members of the subcommittee, both prior to and during the course of our hearings, spent time at other NASA centers involved in manned space flight, at Huntsville, Michoud, and the Mississippi test facility.

For the most part we found the manned space flight program to be well organized, planned and managed—particularly in relation to the relatively short time it has been underway.

Those involved in it are certainly not loafing, but neither is the program proceeding on a crash basis with lots of overtime, duplication of effort, and excessive demands for personnel, hardware and facilities. What we recommend here is needed. It is true that we could slow the program down; but we would not save any significant amount of money by doing it. In fact, we would be apt to spend a good deal more in the long run due to the inefficiency which always accompanies idle pacing. This program is like a gasoline engine. You do not get your best mileage from 80 miles an hour—but you do not get it from 15 miles an hour either.

At the same time, we cannot accept the argument that NASA's original requests for fiscal 1964 are inviolable.

For one thing, the nature of NASA's work requires it to draw up its budget far in advance. Long leadtimes must be accommodated. The budget we are considering here was put together 18 months ago. The 1965 budget has already been in formulation for some time. Between the time these budgets are made and the time Congress considers them, a lot has happened and many plans have changed. It does not, therefore, make sense to say that the funding requests themselves cannot be changed.

Secondly, as I have indicated, our committee has gone straight to those doing the work in order to get complete information on budget problems. This meant detailed discussions with private contractors as well as Government officials. And in the end, we were not satisfied that the requests for money were justified in every case. We were not satisfied that all of the money requested could be wisely spent in the time period involved. We were not satisfied that some of it could be obligated at all during the fiscal year.

So it is a considerable exaggeration to say that any reduction of NASA's requested budget will result in dire consequences to the manned space program.

It is true, of course, that unexpected problems turn up in research and development programs. Budgeting for research and development in astronautics is particularly complex and uncertain. But it is also true that Congress will be here most of this year and again next January. If NASA runs into serious difficulty due to funding deficiencies, we will be glad to consider justified supplemental requests at any appropriate time.

And I would point out that any potential delay which might materialize because of this procedure can easily be compensated for by the flexibility of funding which we permit in NASA's research and development undertakings.

NATURE OF THE PROGRAM

Mr. Chairman, other committee members will describe the detailed aspects of the manned space flight program. I would like to give a brief overall view of just what this program entails at the present time.

First, there is no money in this budget for Project Mercury. That program is ended—very successfully, I might add. It consisted of nine major space shots—the last six of them manned and the last four ranging from 3 to 23 orbits. I am sure you all remember the final 32-hour flight of Maj. Gordon Cooper in May. The total cost of Project Mercury was about $358 million, and it is worth noting that this cost was only $14 million, or 4 percent, more than the projected cost as estimated when Mercury got underway.

Then there is Project Gemini, the top-priority manned space flight program of the moment. This is the two-man spacecraft which will undertake flights of a week or more and develop the highly critical techniques of rendezvous and docking between several spacecraft. To date we have spent about $290 million on Gemini, exclusive of rocket boosters, and the committee has approved the request of $306 million for fiscal 1964. Gemini will probably about double the sum of these figures before it concludes in 1965 or 1966.

Finally, there is Project Apollo, which is our manned lunar landing program. This project calls for a three-man spaceship to be launched by the giant Saturn-5, to orbit the moon, to send two men to the surface of the moon in a special landing vehicle, to return to the mother ship and then head back for earth.

Apollo, exclusive of rocket development, has cost about $500 million to date and the committee recommends here a commitment of a little over $1 billion for this fiscal year—that is, 1964.

We cannot give a firm estimate of the total cost of Apollo. There are just too many imponderables to overcome. Our best guess at present is that the final cost of the manned lunar landing effort, assuming it occurs in late 1969 or 1970, will be just under $20 billion. We believe that Apollo costs will increase somewhat during the next several years and then begin to taper off about 1967. It seems likely that the average cost over the next 5 years will run about $2.6 billion per year for this particular project.

Aside from these programs as I have outlined them, the bill before us carries an additional $1.1 billion for launch vehicles and propulsion systems which includes the various forms of the Saturn rocket and its engines, $11 million for aerospace medicine, $125 million for development of integration and checkout systems for the lunar landing program, and $37 million for systems engineering.

What new programs of manned space flight may be added to our lunar landing effort cannot be told at present. The decisions have not yet been made. Very likely, however, they will involve orbiting space stations or laboratories as the next step. And, eventually, a manned flight to Mars seems the probable first candidate for planetary exploration.

BUDGET REDUCTIONS

In conclusion, Mr. Chairman, I would like to summarize for the House the findings made by the committee relative to manned space flight and explain the budget reductions agreed upon.

The total reduction in research and development is $183,700,000. This is 6.3 percent of the requested research and development budget for manned space flight and has been distributed as follows:

Project Apollo, $120 million: This is the largest part of the reduction made in research and development. While it is a substantial reduction in terms of dollars, it is in fact slightly less than a 10-percent cut of the amount requested by NASA for Project Apollo in 1964. Parenthetically, it should be noted that the Apollo figure does not include development of the Saturn vehicles and engines—for which approximately another $1 billion is being requested. The reduction in this area was agreed upon after investigation by the committee in California and interrogation of NASA witnesses showed that the use of the amount in question could not be wholly identified. This was particularly true in connection with the development of the command and service modules, for which $661 million had been requested.

The M-1 engine, $30 million: The M-1 engine is a 1½-million-pound-thrust oxygen-hydrogen engine originally intended to serve as an upper stage in the Nova. There is now no specific mission for the M-1 engine, but the advantage of its higher specific impulse makes it a potentially useful engine for some future vehicle. The committee felt that the $45 million NASA requested for the M-1 was excessive in view of the very long leadtime envisioned for this engine, plus the fact that present concepts of this type may be outmoded or in need of revision by the 1970's when the M-1 would become operational. At the same time, the committee did not wish to eliminate completely development of the engine. It, therefore, decided to recommend that $15 million of the $45 million be retained for continued study and development.

Integration and checkout, $28 million: NASA requested $153 million for 1964 to be used for integration and checkout of all systems connected with

Project Apollo. The major part of this money is to be used to fund contractor services. However, NASA could not say specifically how much would be required for this purpose. It estimates a minimum of $100 million and a maximum of $125 million. The NASA testimony on what would be done with the balance of $28 million was also vague and uncertain. The committee, therefore, eliminated the balance.

Aerospace medicine, $5.7 million: NASA requested $16.7 million for biomedical engineering in connection with its manned space flight program for 1964. This is more than a 100 percent increase of the funds allocated in 1963 for this purpose. Committee investigation disclosed that the rate of progress required, together with the bioscience capability existing within other Government agencies, primarily the Air Force and the Navy, should make it possible to fund this project at the level of $11 million instead of the total amount requested.

Construction of facilities: NASA requested a total of $564,538,000 for construction of new manned space flight facilities in its 1964 budget. From this amount, the committee cut $75,422,000. The reduction is a 13.4 percent cut in the total requested. However, more than 90 percent of this amount represents either deferrals where the money can be funded incrementally over several years rather than one, or the elimination of a request for advanced design money which NASA has already funded from past budgets.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 10 minutes to the gentleman from New York [Mr. RIEHLMAN].

Mr. RIEHLMAN. Mr. Chairman, I should like also to allude to a statement made when we were considering the rule in the House today by the gentlewoman from New York [Mrs. ST. GEORGE]. That is, that none of us on the committee are completely proficient in this great field of endeavor. I assure you that the Member speaking to you from the well of the House takes that position today. But, although we do not pose as experts in this field, we have arrived, in my estimation, at a level of experience which has permitted a very thorough and incisive evaluation of NASA's request.

This is a complicated subject, one which has taken the best of every member of our committee. May I say to you this has not been gone into in an idle manner but in a serious manner. We have spent not weeks, but months, studying the provisions of this bill, and we did our level best in coming up with a bill that we feel is not alone good for the program which this country has developed to put a man on the moon, but also good for the other fields of activity which this program is bound to be interwoven with.

So I say to you who are here this afternoon, when this committee cut from the program certain amounts, we did it with the knowledge and with the assurance, at least in our own minds, that the Apollo project would be kept on the track and that we would accomplish the goal we set out to accomplish in our authorizations of last year and the year before.

Now, the subcommittee that I serve on was assigned the responsibility for this man-in-space program, and we carried out this responsibility under the leadership of the distinguished gentleman who just spoke previous to me, the gentleman from Texas [Mr. TEAGUE]. The portion which I would like to speak about very briefly is that which deals with Apollo, the spacecraft which will take man to the moon and land him safely there, I hope, and bring him back to earth.

In our procedures and in our deliberations, we did cut this Apollo program to the extent of $120 million.

To those who say we have cut this program too deeply, my answer is, after being intimately involved with it for the past 5 months, that NASA can live with this cut and can keep Apollo on schedule.

By supporting this bill, you will be supporting our national goal in space.

To those who say we have not cut deeply enough, I say that to cut the authorization for Apollo much below committee levels will be tantamount to saying not only that this body no longer accepts this important national goal but also that it no longer feels U.S. supremacy in space to be of paramount importance.

You cannot make drastic cuts in this bill without seriously hampering both pursuits.

We are fighting for scientific and technological leadership in space, and this is very closely related to our total security.

The resulting stimulus to science generally, to science education, to basic research, to technology, to industry, and to the economy cannot help but strengthen our total national security, which is certainly comprised of all these elements.

Our gains in technological know-how will have military applications. This was touched on by the chairman.

Two of the more obvious will be the great increase in booster capacity and in knowledge of what it takes for man to survive and function during long periods in space environment.

Our committee gave diligent study to the role of the manned space flight program in the strengthening of our military posture. There is little doubt about its importance and little doubt that we will be jeopardizing knowledge of great value to the military if we cut this Apollo program back. For a fuller treatment of the committee's position in this area I refer you to the report accompanying this bill.

These achievements I have mentioned depend on the timely success of this program, and that, in turn, depends very much on your support of this bill.

I would like to touch briefly on the Apollo configuration, the flight plan, the overall timetable and then what is scheduled for Apollo in fiscal 1964.

The Apollo spacecraft is made up of three separate units or modules.

The first is the command module, which houses the three-man crew, serves as the control center for spacecraft operation and also as the vehicle for reentry into the earth's atmosphere.

Inside it men will be able to work, eat and sleep without wearing pressure suits. Its basic configuration will be very much like that of the Mercury capsule.

The service module houses many of the spacecraft support systems and also contains the necessary propulsion system so that the spacecraft can be propelled into and out of lunar orbit and can change course during the flight.

The command and service modules are under contract to North American Aviation.

The third unit of the spacecraft is called the lunar excursion module.

It will be entered by two members of the crew, after the craft is in lunar orbit, then detached from the mother craft and flown to the surface of the moon.

Then, when the 24-hour exploration of the moon's surface is completed its propulsion system will lift it from the moon, it will rendezvous in lunar orbit with the mother craft, the two crew members will reenter the command module and the lunar excursion module will then be cast loose into lunar orbit just prior to the return flight to earth.

This module is under contract to the Grumman Aircraft Engineering Corp.

The flight plan for Apollo is, briefly, this: A three-stage Saturn V will boost the spacecraft from Cape Canaveral. Its first two stages will be used to place the spacecraft and the third stage of the booster into orbit around the earth.

From the earth orbit the Saturn third stage will propel the spacecraft into lunar trajectory. The third stage will then be jettisoned. When the craft reaches the vicinity of the moon, the service module retro rockets will be fired, placing it in orbit around the moon.

Two of the crew members will then transfer from the command to the excursion module. The latter will separate and descend to the moon while the mother craft continues to orbit. The excursion module is equipped so that it can hover and move laterally, permitting the pilots to select the best landing site.

After exploration, the pilots will blast off the moon and return to lunar orbit where the excursion module will rendezvous with the mother craft. They will transfer back into the command module. The excursion module will be jettisoned and remain in orbit around the moon. The service module will then propel the craft into earth trajectory and will be used to make necessary directional changes during the flight back to earth.

When the craft has reached the entire corridor the service module will be jettisoned. The command module will then reenter the earth's atmosphere in much the same fashion as the Mercury capsule, but it has been developed so that its parachutes can bring it down on land as well as water.

Now, the timetable for Project Apollo. The spacecraft modules will be qualified in various unmanned suborbital and earth orbital missions during this and the next calendar years.

During 1965 and 1966, manned earth orbital flights in Apollo will be used to further develop reliable spacecraft systems and train flight crews

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used to further develop reliable spacecraft systems and train flight crews.

During 1966 and 1967 various manned earth orbital flights will be used to perfect the rendezvous technique.

Then from 1967 on will come such manned circumlunar or lunar-orbital flights as will be necessary to develop operational techniques in the lunar environment.

Then follows the lunar landing.

Now let us look for a moment at what will be accomplished on Apollo during fiscal 1964.

It is planned to build up to 12 development spacecraft this year and to undertake the actual building, testing, and qualification of the various module components and subsystems.

The first two spacecraft for long-duration manned orbital flights will be built this year.

Other spacecraft will be in various stages of manufacture to support a delivery schedule in fiscal 1965 of a man-qualified craft every 3 months.

There will be three Saturn launches to determine spacecraft and launch vehicle compatibility.

Further tests will be conducted to develop the high reliability needed for the command and service module propulsion system and the abort sensing systems.

Design of the ground support equipment will be completed and construction begun.

Complete ground support equipment for the first manned orbital Apollo flight will be developed and delivered.

All flight simulation and other crew training equipment will be operational.

For the lunar excursion module, 1964 will see the construction of a structural model and extensive testing of the module propulsion system, structural design and landing gear.

In fiscal 1964 prototype guidance and navigation systems are to be developed and intensive ground testing will be underway.

Effort will be directed to the design, procurement, fabrication and testing of the vast and intricate system of instrumentation and specialized scientific devices that will be required for Apollo.

It can readily be seen that Apollo is no longer a drawing board concept.

Basic design studies have all been completed on the three spacecraft modules, and they will go into various stages of construction this year.

Let us take one look very quickly at what is anticipated as far as the cost of this program is concerned and what it will cost us really to put a man on the moon. I am sure that every member of the committee will agree with me that NASA has not given us in definite dollars and cents exactly what that cost will be, but I think we have had enough experience, and the information that we have been able to gather has shown that we can make a fair estimate of what the cost of achieving our goals in this decade is going to be. It is estimated that the cost of Project Apollo and all the related and associated programs will be something in the neighborhood of $19.76 billion. Today if we approve the bill that is before the House, we will have given to NASA and they will have either obligated most of the funds or authorized the obligation of them, a sum of something over $6.75 billion. My understanding today is that the requests that are going to be made to us in the next 4 years will average in the neighborhood of $3.2 billion annually, which will add up to another $13 billion. Therefore if we add the two figures together, we will get a total amount of roughly $19.75 billion. That does not include the overall cost of the NASA program, just the manned space flight portion.

Mr. FULTON of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. RIEHLMAN. I will be glad to yield to the gentleman from Pennsylvania.

Mr. FULTON of Pennsylvania. I would like to compliment the gentleman because I know how hard he has studied this matter and worked on it and how interested he has been in the man-in-space flight program. Can you assure the committee that this money is necessary and that none of it is being wasted and that we by authorizing and appropriating this money are watching out for the taxpayers and the U.S. Treasury as well as the space program?

Mr. RIEHLMAN. I would assure the gentleman and every Member of the House that this committee has had in mind exactly what he has suggested, ever since we started our hearings back in January. This was alluded to by the chairman of the committee in his initial remarks here on the floor today.

Mr. Chairman, let me close with these brief remarks. The question before the House today is whether we as a body shall continue to endorse and pursue the goal of a lunar landing in this decade. May I say to you, no one knows all the spin-off and the benefit that is going to be derived by mankind from this program in addition to the obvious strengthening of our total national security. I could allude to other statements that were made, but I want to go back again to what my distinguished colleague from New York said, something about the inventions and the accomplishments that can be made in this great Nation of ours. We are a pioneering people, a pioneering nation. We cannot sit by idly and allow any nation on the face of the earth to overcome us in the field of technology and knowledge in as important a field as this adventure into space.

My hope is that the House today will decide favorably upon the recommendations that have been made by our committee. I commend every Member who served with me on the committee for the earnest and conscientious endeavor to bring the best possible bill here today for our consideration.

Mr. MILLER of California. Mr. Chairman, I yield such time as he may desire to the gentleman from Florida [Mr. SIKES].

Mr. SIKES. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from Florida?

There was no objection.

Mr. SIKES. Mr. Chairman, I share the growing concern that the United States is spending too much money in space. To me there is room to believe that we are in a race for the outer reaches of space without any clear idea of why or where this race will take us. Space exploration is important and military applications in space can be highly important. These have nothing to do with being first on the moon. I am deeply concerned with the fact that being first on the moon appears to be the primary objective of our space effort. I am equally concerned that this may very well not be the kind of program that would best serve the interests of the United States.

A principal reason for being first on the moon seems to be our desire to go there ahead of the Russians. A cold analysis of the situation would indicate little chance of beating the Russians to the moon if indeed they want to get there. They have had many firsts in space. These have given them a measure of prestige. However, that prestige has not meant the end of the world for the United States; nor will a Russian landing on the moon. However, English scientists who have studied Russian activities say the Russians doubt the feasibility of a moon landing and indicate they are not really trying to beat this country to the moon. Obviously, neither we nor any other country outside of Russia knows the true facts. But if this is indeed the Russian attitude they are showing better sense than the United States.

I have wondered many times why we have not made a concerted effort to achieve a joint space exploration program which would include ourselves, the Russians and any other nation which has a genuine interest in such an effort. We have just concluded negotiations leading to a nuclear test ban which most of us thought would never come. It may be that we have indeed reached a turning point in the cold war and that the Russians are in the mood for additional understanding with the West. To me there is much to be said for a joint effort which would enlist the best efforts of all interested countries in the new and costly field of space exploration. If we could save ourselves half the fantastic cost to which the space race is subjecting us, it would be a laudable achievement indeed. A joint effort would take away the unfortunate implication that "He who gets there first gets all."

Let us realize that the sea of space upon which we are embarked is broad and very largely unknown. By and large, our moon probes have contributed little. This would indicate a need for more orderly planning with less haste. I do not know anyone who says that a race to the moon is the most rational way to gain knowledge in space. I would prefer to see us build space capability on a broad front. This broad front should carefully seek out and study applications of economic, military, or scientific significance.

Actually, the military applications in space do not now appear particularly significant. Whatever we can do from space in the immediate future we can do better from the earth. Nevertheless, this could be an area where a breakthrough in achievement by the Russians could be extremely dangerous to our safety. We dare not neglect this field. Rather than the present program, I prefer to see a more vigorous effort to explore military applications in space and to see equal emphasis on the development of scientific knowledge about space. And I cannot ignore other aspects of human needs not associated with space which must be bypassed or overlooked to permit one vainglorious effort to get to the moon.

Let us put the space race in place. It is important, but not as important as its present tempo would indicate. I trust that we may soon have a realistic reappraisal of our real aims in space.

Mr. MILLER of California. Mr. Chairman, I yield 15 minutes to the gentleman from Minnesota [Mr. KARTH].

Mr. KARTH. Mr. Chairman, I rise in support of the bill H.R. 7500. I join my colleagues with the feeling very firmly embedded upon my mind that no more extensive, no more intensive hearings were held on any bill during this session of Congress than were held upon the bill that is now before this Committee for consideration.

However, before I engage in any specifics on that portion of the budget that I was privileged to handle as subcommittee chairman, may I extend my sincere thanks and personal appreciation to all of the other subcommittee members for having done a really magnificent job under very trying circumstances, with very little, if any, fanfare, on a most tedious and most difficult job; because there is nothing really exciting or glamorous about basic research and technology and I might add there is nothing really glamorous about space sciences, either.

Inasmuch as these were the two offices of NASA that we covered, I do, Mr. Chairman, at this time offer my very sincere personal thanks and appreciation to each of the subcommittee members that served day after day, week after week and month after month for 4 long months hearing the evidence, taking the testimony, and writing the report that was accepted by the full committee. The subcommittee members I refer to are Mr. MORRIS of New Mexico, Mr. RANDALL of Missouri, Mr. DOWNING of Virginia, Mr. STAEBLER of Michigan, Mr. CHENOWETH of Colorado, Mr. VAN PELT of Wisconsin, Mr. MOSHER of Ohio, and Mr. WEAVER of Pennsylvania. In fact, so exhaustive and so intensive, Mr. Chairman, were the hearings before our subcommittee that in the final analysis as we voted on the many projects that came before our subcommittee there were only two dissenting votes and these two dissenting votes were on two different subject matters, or I should say on two different projects before the committee.

One was a minor vote, or a lone vote, if you will, to increase the budget proposal that we were making to the full committee by $28 million. The other vote was a single vote to decrease the budget proposal we were to make to the full committee, by $5 million. So certainly I think this is evidence of the fact that there was no partisanship flavor on the subcommittee which I was privileged to chair. On the contrary, I think the record is replete with evidence that all of the members keenly appreciate the importance, if not indeed the necessity, for American preeminence in space.

Previously I stated, Mr. Chairman, that there was little glamor in the Office of Space Sciences and in the Office of Advanced Research and Technology, but there are no programs in the overall space program that are in my opinion any more important than those being sponsored by those two offices. The fact of the matter is that to fulfill the U.S. destiny as the leading nation in space, the space sciences and advanced research and technology programs are absolutely indispensable.

The research conducted by these two offices is highly technical. It involves a great many programs. It involves many different projects. Therefore, I will endeavor not to review each of them in detail, but suffice it to say that there are more than 50 highly technical, highly scientific, and grossly difficult to understand programs before the subcommittee on which I serve. These 50-some-odd programs and projects are exclusive of construction and facilities.

Just to give you a feel for the diversity of projects before the committee, let me call to your attention that they range through energetic particle explorers, ionospheric monitors, orbiting solar observatories, geophysical and astronomical observatories to propulsion systems of all types, chemical, nuclear, and electric, research grants and facilities to universities and colleges, space programs of all kinds, human-factor systems, the supersonic transport, international satellites, and so on.

Without attempting to give a definite summary of each of these, I will try to summarize the activities of each of the main offices involved.

The Office of Space Sciences is engaged primarily in small, medium-sized rockets, unmanned earth orbit instrumented spacecraft, and interplanetary, instrumented spacecraft.

Their specific jobs are to investigate the phenomena and properties of earth, to investigate the properties of the atmosphere, to investigate the properties of near space, and the entire solar system. Their responsibility is to do this from the vantage point of space, because neither telescopes or radar, due to the heavy atmosphere of the earth, are capable of doing this kind of job.

Space sciences research has unlocked many secrets. Secrets about space systems technology, about booster power reliability, about electronic systems and their reliability, and about the earth's magnetic field, space hostility, and so forth. Yes, Mr. Chairman, the work that has been done by this Office of Space Sciences has given us a new appreciation of what the world really looks like, because it was not too long ago we thought it was round. Today we know that it more accurately resembles a pear.

I might say that this one determination, that is, what the size and shape of the earth really is, Mr. Chairman, has many important significances, because it affects worldwide accuracies.

If we are thinking of making our ICBM's accurate, this then becomes a very important technological breakthrough indeed. Of course, it affects worldwide communications and ocean-going ship locations and so on.

So, indeed, in this one area alone, I suppose we could honestly agree that this whole program has paid for itself.

In other words, Mr. Chairman, the Office of Space Sciences has a direct effect upon the space development program and a very direct effect on space knowledge and technology applications.

Let me also briefly summarize the work of the Office of Advanced Research and Technology.

Their basic purpose is to lay the foundation, the building blocks if you please, for advancing this Nation's space technology in all areas, and that includes the area of aeronautics. In part their work is a continuation of NASA's predecessor, the old National Advisory Committee on Aeronautics. Their objectives, I might state, at this point are designed to meet both civilian and military needs for those who might be doubters in that area. They do basic research on aerodynamics including vertical takeoff and vertical landing.

They do basic research on all materials, structures and propulsions in joint effort with the Defense Department and the FAA.

Another major program in aeronautics is the X-15, a hypersonic velocity aircraft with designated speeds of more than 4,000 miles per hour and heights reaching into weightless space.

In space oriented research, Mr. Chairman, OART is doing extraordinary work in the fields of propulsion, and high energy, high specific impulse cryogenic fuels, and the new solid propellant fuels, and I am glad the gentleman from Florida [Mr. FASCELL] expressed interest in it moments ago, and electric and nuclear propulsion fields as well. All with the purpose in mind of developing greater efficiency, greater reliability, and longer endurance for flights lasting weeks, months, and even years and most important of all, perhaps, ways of reducing the high cost of building these tremendously large boosters today.

The Office of Advance Research and Technology is doing extensive work in creating materials that heretofore were unknown materials and will create materials tomorrow, I suppose, that are unknown even today; materials in all fields—metals, ceramics, plastics as well as others.

Still another most important area includes auxiliary power sources, electric power for space vehicle engines and control instrumentation and communications and life support systems.

These developments will efficiently capture the sun's energy, for example, and

convert it directly into electrical energy. I might say the development of nuclear reactors to produce electric power in space is probably the ultimate answer of our real objective to go into outer space for long periods of time.

Finally, OART does research and technological development on vehicle materials to withstand micrometeoroid impacts in space and still remain of light weight; to technologically develop materials and sealing out of heavy radiation and to protect against enormous temperature changes that vary from temperatures as high as plus hundreds of degrees Fahrenheit in 1 minute to minus hundreds of degrees Fahrenheit the next minute or certainly, at most, in a matter of hours.

It is worthy to recall, Mr. Chairman, that our scientific and technological developments which we take for granted today have their roots deep in the basic research of yesterday. I do not care if it is the automobile or the airplane or the telephone or the radio or TV or what, but always this country or whoever was developing some of the modern conveniences of today—always it was a fact that first came the tedious, expensive and unglamorous basic research which provided the technological breakthroughs.

I venture to say, Mr. Chairman, if and when we cease in this country to do research in our Government laboratories, if we cease research in our universities and our colleges and in our private industries, then, and then for sure, we will cease to be a great Nation. Make no mistake about it.

Now, Mr. Chairman, how does the work of the Office of Space Sciences and Advanced Research and Technology tie in with this Nation's defense? I think it is a fair question. Frankly, our space program is a peaceful one.

Mr. Chairman, I could not help but appreciate remarks of the gentlewoman from New York [Mrs. ST. GEORGE], when she indicated that maybe what we needed more of, if you please, were peaceful competitions between leading nations. But the matter of the fact is, the space program does tie in with our national security, and it ties in with our national security so closely that it should be embarrassing for those who seek to divide it or should be embarrassing for those who seek not to recognize it. Not because of any ulterior motive, nor do I charge such, because I know they are sincere in their thinking but, rather, from what is obviously a complete lack of knowledge or understanding of the space program.

Mr. Chairman, our interplanetary monitors, our ionospheric explorers, our orbiting geophysical instruments, our solar and our astronomical observations as well as our sounding rockets are doing well. Our geo probes are at work. Our structures and materials, our plastics and ceramics, our research in the field of chemical, nuclear and electrical propulsion, our development of auxiliary powers—how to keep a man alive in space, how to boost him up and bring him back alive, the hostilities of space such as radiation, its magnetic fields, its meteoroids and its solar eruptions, all these things, Mr. Chairman, are directly or indirectly applicable to this Nation's security and, again, make no mistake about that. For, if ever a war is to be fought in outer space or from outer space, all of this technology, all of these scientific investigations and the knowledge that we have gained from them will need to be applied to a military system to protect this country against the enemy.

So, Mr. Chairman, with nearly every project, with nearly every program, there may be or will be directly or indirectly a military application.

The CHAIRMAN. The time of the gentleman from Minnesota has expired.

Mr. MILLER of California. Mr. Chairman, I yield 2 additional minutes to the gentleman from Minnesota.

Mr. KARTH. Mr. Chairman, let me conclude by saying—and I shall not dwell on the whole proposition of prestige, because I think it is too nebulous if not too meaningless for many to understand, but I will say that in all cases it is more often true than not that the weak generally gravitate to the strong and that nation which is strong in science and technology commands the respect of friend or foe alike, because that is the test of strength for the future. Therein, I think, lies the answer to future progress.

Mr. Chairman, in conclusion, our budget reductions are as follows: The committee recommends to the House a reduction of $89.2 million, or approximately 12.1 percent, in the Office of Space Sciences. In addition, the committee refused to authorize $7.7 million of the Office of Space Sciences request for construction of facilities. This amounts to approximately a 30.3-percent reduction in their budget request for construction.

Thus we recommend the House authorize a total of $666,477,700 for the Office of Space Sciences.

Similarly, the committee reduced the budget request for the Office of Advanced Research and Technology some $16.5 million, or 5 percent; 26.6 percent of the requested funds were disallowed for construction and facilities.

These recommendations were made after careful study, Mr. Chairman, and I think are appropriate in order to carry on the work of these offices. They were not made arbitrarily, but they were made after many months of hard work.

Mr. Chairman, we recommend, and I personally recommend, that the House accept H.R. 7500 in its present and existing form.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 10 minutes to the gentleman from Colorado [Mr. CHENOWETH].

Mr. CHENOWETH. Mr. Chairman, I rise in support of the pending bill, H.R. 7500. I am not particularly happy with all of the provisions of the bill. I was hoping that some further reductions could be made. I had hoped there would be a reduction of perhaps at least 10 percent in the estimated budget of about $5.7 billion. The chairman of the committee, the gentleman from California [Mr. MILLER], has indicated the cut is about 8.3 percent. I sincerely feel some further reductions could be made without in any way jeopardizing our space effort.

Mr. Chairman, I am pleased to follow the distinguished gentleman from Minnesota [Mr. KARTH] who is the chairman of the Subcommittee on Space Sciences and Advanced Research and Technology. I serve as the ranking Republican member of this subcommittee. It has been a great pleasure and privilege to serve on this subcommittee. I want to commend the gentleman from Minnesota [Mr. KARTH] on doing a fine job, and for his patience and consideration over the long period during which hearings were held. I am sure you recognized his intimate knowledge of the many technical and scientific subjects under the jurisdiction of his committee. I was also happy to serve with the other members of the subcommittee, the gentleman from New Mexico [Mr. MORRIS], the gentleman from Missouri [Mr. RANDALL], the gentleman from Virginia [Mr. DOWNING], the gentleman from Michigan [Mr. STAEBLER], the gentleman from Wisconsin [Mr. VAN PELT], the gentleman from Ohio [Mr. MOSHER], and the gentleman from Pennsylvania [Mr. WEAVER]. I thought we had a splendid subcommittee and I greatly enjoyed my association with the other members.

As the gentleman from Minnesota mentioned, we made some rather substantial cuts in the appropriations with which we dealt. The cuts are something like 12 percent. If the other subcommittees had reduced their budgets on the same ratio we would have achieved a reduction of more than 10 percent in the overall budget which I was hoping we might attain. I have never been convinced that we should spend so much time and money on the manned lunar program. I feel here is one activity where we could make a substantial saving. However, I am not on the subcommittee handling the manned spacecraft program and I do not have the technical knowledge to point out just where the cuts should be made.

Mr. Chairman, no useful purpose is served by discussing the necessity for this bill today. We are in the space age, and there is no other course to follow. We must continue to explore outer space in order to keep up in this race, and we do not want to finish second in this contest. It is my personal opinion that we are ahead of the Russians in most of the space effort. There has been a tendency to exalt the feats of the Russians and minimize the importance of our own achievements. I do not subscribe to this theory, and I contend that the United States is now leading the space race, with possibly one or two exceptions. Of course we do not know just what the Russians are doing, as they do not advertise their activities, as we do. We do know they are working hard to excel in this space race, and we cannot afford to relax our efforts. We have some very distinguished members on our committee. The Speaker of the House, the gentleman from Massachusetts [Mr. MCCORMACK], was one of the original members of our committee, and made a most valuable contribution to the work of the com-

mittee. We have on our committee a former Speaker of the House, the distinguished gentleman from Massachusetts [Mr. MARTIN], who is the ranking Republican member of the committee. We are also proud to have on our committee the distinguished majority leader of this House, the gentleman from Oklahoma [Mr. ALBERT]. This is the newest standing committee of the House and has made great progress in the 5 years of its existence.

I want to take a moment to commend the distinguished chairman of the full committee, the gentleman from California [Mr. MILLER], who has presided over the committee with great skill and ability. The committee has had many difficult problems to solve, and the chairman has always conducted the meetings in a fair and impartial manner. I have never heard the slightest criticism of any favoritism being shown to any member of the committee or to any group.

Mr. Chairman, the responsibilities of this committee have grown very rapidly. I believe the first budget of the committee was something less than $1 billion 3 years ago. Two years ago the budget was about $1.3 billion. Last year the budget was about $3.7 billion. This year the sum of $5.7 billion was requested which the committee has reduced to $5.2 billion. We are moving up our expenditures at the rate of about $2 billion a year, and I understand there will be another increase next year.

Mr. Chairman, I feel that our Committee on Science and Astronautics has a definite responsibility to hold down expenditures wherever possible. I have the feeling that all of the items in this bill are not of the utmost and urgent importance. Some could be deferred, or perhaps be abandoned.

This is an expensive program. I am not going to say there is not some duplication and some waste in this program. I am sure that no member of the committee will give you such an impression. We are not scientists and experts skilled in detecting all of these overlapping functions, but we have made an honest and sincere effort to eliminate waste wherever possible. This committee has done a tremendous job, has made great progress in advancing the space effort.

Mr. Chairman, I want to take just a minute to discuss the supersonic transport situation. I have been very much interested in the development of commercial supersonic transports which would fly at the rate of around 1,400 miles per hour. We are aware of the fact that just recently one of our leading domestic airlines purchased six of these transports from England and France. It appears that these countries are far ahead of us in this program. The name of this new transport is the Concorde. Delivery of these transports are expected in this decade.

Mr. Chairman, I feel very keenly that we should exert every effort to match the performance of the British and the French in this program. I want to see the United States retain superiority in aeronautics. This is a divided responsibility, I might say, and does not fall entirely on NASA. However, NASA does cooperate with the Federal Aviation Agency and the Department of Defense. Funds are made available in this bill for NASA to continue this program, and I hope that a year from now we can report substantial progress on the development of an American commercial supersonic transport.

Mr. Chairman, this is a very important measure and one of the largest authorization bills which will come before the House this year. As I said at the start of my remarks I feel some further cuts could be made in this bill, and particularly in the manned lunar program. However, this is the best bill that the committee could present to the House at this time.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 10 minutes to the gentleman from Indiana [Mr. ROUDEBUSH].

Mr. ROUDEBUSH. Mr. Chairman, I rise in support of H.R. 7500, a bill to authorize expenditures for our national space effort for fiscal year 1964.

This legislation to provide a total appropriation of about $5.2 billion, actually represents a rather sizable reduction in the amount requested by NASA, amounting to about $5.7 billion. The actual cut made by the House committee is just under one-half billion.

Actually, the function of this committee was divided into three subcommittees for consideration of this greatly expanded budget. It was my pleasure to serve under the gentleman from Texas [Mr. TEAGUE], and this particular subcommittee handled those programs associated with manned space flight.

We commenced our consideration of this portion of the budget on March 6, 1963, and concluded hearing testimony of witnesses on June 6, 1963.

In this interim of 3 months, our committee held 31 open hearings, plus 12 executive sessions. We listened to more than 100 witnesses from NASA, industry, other government agencies, and from many leading universities. We actually visited and inspected several of the sites where work peculiar to our assignment was being accomplished.

After careful consideration of all testimony as well as evidence gathered by our staff, plus our own observation, we have recommended a total reduction of just over one-quarter of a billion dollars in our manned space effort.

This, percentagewise, amounts to about 7½ percent of the budget requested by NASA.

Other members of our committee have addressed themselves to reduction rendered in the fields covered by our two additional subcommittees, and I feel that they are substantial.

I do not want to impose on the time of the House membership, to again cover this ground.

Instead, I feel compelled to inform the House of certain features of this legislation in which I find myself in honest and sincere disagreement.

On at least one of these features, I will offer an amendment at the proper time. Perhaps, I shall do so on others.

May I respectfully invite your attention to the additional viewpoints contained in the committee report. I refer, at this point to one of these viewpoints, specifically. The point I attempt to make here is disagreement with tremendous growth in facility, training, and research grants. For this endeavor NASA asks $55 million for fiscal year 1964. And, again, as is pointed out in these additional viewpoints, this is an increase of $25 million over the last fiscal year and between four and five times as much as was allowed for fiscal 1962.

I also wonder about the feasibility of the authorization of $3.9 million, for further study and justification regarding the so-called Electronics Research Center, for which NASA asked for $5 million for actual land acquisition.

I think it is common knowledge that NASA's intent and purpose of this request was to purchase land in Massachusetts for construction of this facility.

I wonder, too, about the location of this laboratory in Massachusetts. I have reviewed the testimony by NASA witnesses and the justification is rather weak, both for its establishment, as well as for the selected location. I recall the remarks of the Secretary of Defense concerning the lack of Research and Development Facilities in the Midwest and areas of the South. Then I must pose the question, Does this not further aggravate this badly balanced condition?

I believe the committee generally shares this apprehension as to both need and location. That was the evident purpose behind the disallowance by the committee, of the $5 million item to purchase a landsite. I certainly do not quarrel with the further study recommended by the committee being made. If you will note page 4, line 16, subtopic (H) of the bill, this act proposes to vest in the committees of the House and Senate, full authority to proceed, with this, I think, rather poorly justified project. Here I would prefer a change in the legislation to provide that the authority to proceed should be enacted by regular legislative procedures and allow Congress as a whole to work its will and pleasure.

If such project is needed and properly justified as to its location, I am sure that Congress will grant the needed authority by separate enactment of legislation.

As a whole, I commend my chairman [Mr. MILLER] and the members of this committee on a very diligent job well done. I think this committee has done just as good a job as was possible, considering that this function of government deals largely with the unknown and untried frontiers of science.

It is not a decision for our committee to make, as I see it, whether or not this Nation is wisely or correctly committed to a space effort of this magnitude. Much debate has been generated as to the extent and costs of this program. Even persons of great authority and stature in this Nation are in honest disagreement as to the proper scope and direction of our space efforts.

Again, I refer to the additional viewpoints, which appear in the printed report.

I must voice honest misgivings as to whether the program outlined by NASA and authorized by this legislation provides adequate return, in a security sense,

to our people. It would seem to me that the safety and security of our citizens, and that of the freedom-loving people of the world, should be the paramount test for funds expended in our space efforts.

Secondly, I feel that next preference should be directed to those accomplishments that will benefit mankind. Here I refer to material benefits, such as weather satellites, which will allow a longer leadtime in forecast of weather. I also think of our highly successful communication satellites which electrified the world with their successes. And, our very important new approach to both air and sea navigation, through the use of satellites.

None of these benefits require exploration of distant outer space but rather in so-called inner space, the immediate area that surrounds our earth.

One final admonition, if I may put these closing remarks in that form.

We find ourselves committed to a program of peaceful use and exploration of outer space. This committment, as a national goal, was voiced by our President. I would say that we are in the space business, whether we like it or not, because we have compelling reasons to continue these efforts. I would observe further that the safety and well-being of our citizens are dependent upon these efforts.

Mr. MILLER of California. Mr. Chairman, I yield 15 minutes to the gentleman from West Virginia [Mr. HECHLER].

Mr. HECHLER. Mr. Chairman, most of us like to think we have the most interesting and the most exciting job in the world, and after the past 6 months of chairing a subcommittee concerned with the NASA authorization, I am sure of it.

The subcommittee over which I presided has a long and somewhat cumbersome title. It is called the Subcommittee on Applications and Tracking and Data Acquisition. When you take out manned space flight and research and technology in the space sciences—both handled by other subcommittees—you might think that little is left but miscellaneous cats and dogs. On the contary, the subject matter is inherently challenging, and vitally important because it deals so directly in how the space program benefits the people of America and all over the world.

Weather satellites, communications satellites, the huge tracking network, industrial applications, and administrative operations—these are the subjects handled by the subcommittee under our jurisdiction.

Every chairman probably feels he has the finest members in the world on his committee—but I am dead sure of it. During the course of our extensive hearings, we followed a practice which is perhaps unprecedented in Congress. We reached down into the subcommittee and had different presiding officers for the several subjects considered. My colleague from Indiana [Mr. ROUSH] presided over the hearings on tracking and data acquisition and industrial applications; the gentleman from Georgia [Mr. DAVIS] presided over the hearings on meteorological satellites; the gentleman from New York [Mr. RYAN] presided over the hearings on communications satellites; and the gentleman from Tennessee [Mr. FULTON] presided over a portion of the hearings on procurement policies. I presided over the hearings on administrative operations.

The minority members of the subcommittee, the gentleman from Washington [Mr. PELLY]; the gentleman from Illinois [Mr. RUMSFELD]; and the gentleman from New York [Mr. WYDLER] did a brilliant job of questioning witnesses, clarifying the issues, and helping the entire subcommittee to throw the searchlight of thorough inquiry into NASA operations. In my years in the House, I have never seen a group work in greater harmony and dedicated effort toward a common objective.

Our thanks goes also to W. H. Boone, technical consultant to the committee, and Edward Wise of the Legislative Reference Service.

I might add that since there has been a lot of discussion about whether there is enough military influence in space, certain facts might be brought out for the record. The chairman of our full committee, the gentleman from California [Mr. MILLER] was a lieutenant of field artillery in World War I. All three of our subcommittee chairmen won combat decorations in the European theater of operations. The gentleman from Texas [Mr. TEAGUE] was decorated 11 times as a battalion commander of the famous "Cross of Lorraine" 79th Division in World War II. And the gentleman from Minnesota [Mr. KARTH] was recommended for a battlefield commission in the European theater of operations in World War II.

ADMINISTRATIVE OPERATIONS

NASA requested $560,300,000 for administrative operations. The committee cut this by $52,115,000—or 9.3 percent.

The largest item in this request was for personnel compensation and personnel benefits, for which NASA requested $319,460,000. In terms of people, NASA asked for an increase from present strength of 28,358 to 32,500—or an increase of 4,142 people. Over half of this increase is planned for Huntsville, Houston, Cape Canaveral, and the Goddard Space Flight Center out here in Maryland. The committee scaled down the $319 million authorization by $25 million, to bring it down to $294,468,000. In making this reduction, the committee did not specify any number of people NASA should or should not hire, but gave some latitude to NASA to apply the reductions where it was deemed best for the planned programs.

The other items beside personnel compensation and personnel benefits cover nine other classifications. The greatest reductions recommended by the committee were made in travel and transportation of persons, rent, communications and utilities, supplies and materials, equipment and other services.

The general feeling of the committee was that NASA must follow some belt-tightening in its administrative operations. Every new organization which has any national glamor associated with it gets a kind of honeymoon during which even friendly critics rarely speak out or ask questions. The honeymoon is now over for NASA. The major objectives of this Nation's space program will be given solid and enthusiastic backing, while at the same time a thorough justification is demanded by Congress and the people, particularly on the administrative side of the space program. We intend to prune away the bureaucratic fat, and keep this administrative organization lean enough so it does not bog down on the launching pad.

Congress must be equipped with better tools to do a more adequate job of oversight with respect to the rapidly expanding NASA administrative activities. In former years, the authorization bill was drawn up in such a way that a lump sum was authorized for the category "Research, Development and Operations." This year's bill has altered this approach, and H.R. 7500 which is being considered today separates out "administrative operations" from the funds authorized for "research and development." These administrative operations funds are made available for only 1 year. In reducing the funds available for reprograming, this will give Congress a tighter control and check, as well as providing closer management control within NASA on budget estimates as well as commitments and expenditures.

WEATHER SATELLITES

Mr. Chairman, last year Congress authorized $57,315,000 for weather satellites. For fiscal 1964, NASA requested a slight increase to $63,700,000. Believing that this is one of the most valuable portions of the space program and that the request was fully justified, the committee recommended that the entire amount of $63,700,000 be authorized.

The old standby of weather satellites is Tiros. Seven straight successes have been scored in launching Tiros satellites since April 1960. A total of over a quarter of a million photographs have been sent back to earth. Tiros has done a good, sturdy job in the past 3 years in identifying many hurricanes and typhoons and relaying advance warnings. Improvements in weather predictions in the future carry vast implications for farmers and businessmen. These improvements will be of prime importance in underdeveloped areas of the world.

Tiros is spin-stabilized and space-oriented, which means that many of the Tiros photographs of the earth are taken at an oblique angle. The newly developed Nimbus satellite, the first of which it is planned to launch before the end of the calendar year 1963, is earth-oriented and will look at the earth vertically at all times. Nimbus will be able to photograph a wider band of the earth and through automatic picture transmission will be able to transmit photos quicker to small weather stations on earth. Its infrared sensors will be better able to penetrate nighttime cloud cover.

In this fiscal year Congress authorized $21,200,000 for Tiros, which will be phased down to only $7,200,000 in the amount authorized by this bill. Nimbus will be financed by an increased funding, rising from $30,290,000 in fiscal 1963

to the recommended amount of $43,800,000 for fiscal 1964.

COMMUNICATIONS SATELLITES

Last Friday occurred the dramatic and apparently successful launch and orbit of Syncom, the new communications satellite which hangs 22,500 miles above the earth and rotates the same speed as the earth in a 24-hour orbit. This constitutes one step toward developing worldwide communications on an operational basis.

NASA requested $51 million to support research, development, and flight testing in communications satellites. The request was for about $2 million more than was expended last year. The Communications Satellite Corp. has been established to exploit the private use of these satellites. After extensive hearings, the committee recommended a cut of close to $9 million in next year's communications satellite program. Some of this cut came out of supporting research and technology, but the bulk of it came out of the advanced Syncom program, which was reduced from $40 million down to $33 million—largely because the committee felt that some launch vehicles and spacecraft could be purchased in future years.

The funds for communications satellites in the next year will be spent primarily on research, development, and flight testing of new communications satellite systems. There will be several additional launches of Relay and Syncom, as well as the passive satellite Echo. The Syncom which was launched last week does not contain television capability, as in Telstar or Relay, but NASA is working toward an advanced Syncom which will be able to transmit color television internationally.

TRACKING AND DATA ACQUISITION

Telemetry is a common word you hear during the manned space flights. Whether we are sending out scientific satellites, space probes, developing rockets, or engaged in manned space flight, the tracking network, plays an all-important role in transmitting command signals, receiving and recording telemetered or voice data, and tracking the spacecraft to determine its position.

For supporting research and technology, network operations and equipment and components, NASA asked for $231,500,000. This compares with $135,852,000 provided for the fiscal year 1963. We are recommending $216,700,000 for the next fiscal year, a cut of about $15 million in this category.

A large part of the increases in the coming year are directly related to support of the manned space flight program and the worldwide tracking network necessary to sustain that program.

There is an item which appears under "Construction of facilities" which relates to the tracking network, and which I would like to pinpoint at this time, Mr. Chairman. NASA requested an authorization of $90 million to provide new tracking and data acquisition equipment to be installed on three ships to be modified for use in the Apollo program. After hearing extensive testimony from both NASA and the Department of Defense, the committee decided to accept a proposal made by the Department of Defense. The Defense proposal involves the modification of four existing range tracking vessels, and the purchase of new equipment for and the refurnishing and modification of one new vessel. This plan would cost $80 million instead of $90 million; it would make five ships available; and it would mean an annual saving of approximately $4,500,000 in ship operating costs.

INDUSTRIAL APPLICATIONS

To me, one of the exciting developments in the space program is the way in which the new discoveries and technological advances are applied to industry. The industrial applications, or technology utilization, program is very modest. Only $3.5 million is involved. Up to now, efforts have been concentrated on identifying, documenting, and evaluating potential applications to industry. For the fiscal year 1964, these pilot programs will be expanded. We hope that the space ideas and innovations will be quickly placed into the hands of industry, resulting in many new products, processes, techniques, and devices for the benefit of private enterprise and the national economy.

CONCLUSION

A total of $1,032,803,000 was included in the NASA requests considered by the Subcommittee on Applications and Tracking and Data Acquisition.

Of this amount, the committee recommended an approved authorization of $937,293,000—a reduction of $95,510,000. This represents a cut of 9.25 percent.

We believe that with such a reduction a number of economies can be achieved, and that the central objectives of the program will be supported.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 10 minutes to the gentleman from California [Mr. BELL].

Mr. BELL. Mr. Chairman, I should like to add my words of commendation to the excellent job that I believe the chairman of our committee has done in his fairness and his depth of understanding in delving into the work of this committee. I would also like to commend the very fine effort of the chairman of our subcommittee, the gentleman from Texas [Mr. TEAGUE], for his fine work and the amount of work and hours that he spent in studying the efforts of NASA.

Mr. Chairman, this is the third year I appear before you to advocate passage of the annual National Aeronautics and Space Administration budget.

My assignment today in supporting H.R. 7500 is a specific discussion of that aspect of the appropriation dealing with the Apollo manned space flight program.

Of the $5.2 billion recommended by your Committee on Science and Astronautics for NASA for fiscal 1964, $2.4 billion will be applied to the Apollo effort.

It was in the summer of 1961 that your Science and Astronautics Committee first recommended, and Congress approved, a budget for manned space flight.

That first allocation covering fiscal 1963 amounted to $487 million.

The following year approximately $1.1 billion was earmarked for Apollo by Congress.

Each year the budget has increased because each year we come closer to vitally important breakthroughs in our assault on the mysteries and challenges posed by the Apollo project.

We understood this would be the case when we initiated the program.

Today three barriers impede the performance of the United States in space. They apply equally to military and to scientific progress. They limit hope for advanced American exploration in the farthermost reaches of the universe. They restrict us in the 100 to 500 miles of so-called inner space where national security must be considered.

Barrier No. 1 is booster capability.

Barrier No. 2 is rendezvous capability.

Barrier No. 3 is precision-timing capability.

Mr. Chairman, impossible to ignore in our budgeting to overcome these barriers is an assessment of the relative success of the Soviet Union with the same problems.

Booster capability of the United States in manned flight as demonstrated in Project Mercury, is 360,000 pounds thrust.

Russia is presently presumed to be capable of 850,000 pounds of thrust.

Unclassified published studies suggest, however, that the Soviets may now be developing a new system of engines and clustering which would increase their booster capability by more than 50 percent.

Some American scientists believe that a new basic engine will be produced in Russia soon and may double the thrust of their present engine.

The response of our space technicians to this challenge is represented in engines designated Saturn I, Saturn IB, and Saturn V. Each is part of the Apollo program.

Booster potential of these Saturn vehicles ranges from 1.5 to 7.5 million pounds of thrust.

Rendezvous capability and precision-timing capability must, of course, be equated with thrust. But they also represent technical sophistication quite apart from thrust power.

No American achievement in these two areas matches the Vostok flights of August 11 and 12, 1962, and June 14 and 16, 1963.

Project Apollo, for which rendezvous and precision-timing capacity are absolutely essential, is currently the best hope of our Nation in overcoming clearly demonstrated Russian superiority.

To the aeronautics and astronautics coordinating board of NASA and the Department of Defense, established in 1960 and actively functioning today, will be assigned many considerations involving application and development of Apollo research.

Manned and unmanned space stations, of interest to both science and the military, are examples of areas in which Apollo will be the trailblazer.

Even in the absence of international competition and political tension, however, Apollo would be needed to break down the three barriers which place intolerable limitations on every aspect of our potential in space.

It may be a disadvantage rather than an advantage that Apollo is best known as the project by which the United States seeks to accomplish the 768,000-mile lunar expedition within this decade.

In point of fact, it is estimated that between 50 and 60 percent of the proposed Apollo budget constitutes basic research and development on space flight.

This means that more than half of what is done in the name of Apollo can be applied to any space activity in which our Government might become engaged, now and later.

Mr. Chairman, valuable previous discussions concerning the feasibility and desirability of the Apollo program can be reviewed in the CONGRESSIONAL RECORDS of April 28 and May 24, 1961; and May 23 and July 10 and 11, 1962.

Hearings of the Committee on Science and Astronautics especially useful in assessing the program can be found in reports dated May 12, 1961; May 15, 1962; and July 25, 1963.

No new technical information has been acquired since the Apollo budget authorizations for fiscal 1963 which now cast doubt on the feasibility of the program. All development has proceeded as planned.

Arguments which originally justified Apollo appropriations and programing, and were considered acceptable by the Congress in 1961 and 1962, still apply.

To continue the Apollo program on its present schedule to July 1, 1964, we will commit ourselves to the expenditure of $2,475,900,000.

This total can be broken down in the following way:

First. For the spacecraft, described on page 9 of your report, $911,400,000.

Second. For operations, described on pages 9 and 16 of your report, $16 million.

Third. For procurement of launch vehicles, described on pages 9 and 17 of your report, $135 million.

Fourth. For support development, described on pages 9 and 18 of your report, $25 million.

Fifth. For development of launch vehicles, described on page 22 of your report, $1,138,500,000.

Sixth. For proportional allocation of the costs of shared construction and facilities, described on pages 127 through 160 of your report, an estimated $250 million.

Viewed solely from the standpoint of technology and methodology, these items have not, to my knowledge, come under question.

It is in the ever-changing area of public policy that project Apollo and, indeed, the entire NASA budget, rightfully deserve close scrutiny by the Congress.

In this regard I call your attention to a supplementary opinion on page 201 of the report submitted by six distinguished members of our Science and Astronautics Committee.

In essence the supplement deals with the significant question of whether the United States is intelligently balancing Federal space expenditures between programs which contribute to national security and programs of pure scientific research.

The signers of this supplement, while not advocating rejection of the NASA budget this year, express a concern which many of us feel.

There is clearly a need for more and better information about the annual $14 to $15 billion of Government research spending as it relates to scientific priorities, national goals, and the need for congressional and executive budgetary discipline.

Such concern, however, is not incompatible with support of the NASA budget today.

Mr. Chairman, the Committee on Science and Astronautics is not afflicted by either moon madness or space obsession.

It has been for many months involved with a businesslike consideration of the financial requirements of the National Aeronautics and Space Administration for fiscal 1963–64.

From the NASA budget proposal first submitted to us, $120 million was cut from Apollo research and development alone.

Beyond this, reductions of more than 8 percent of the total of the original request of the National Aeronautics and Space Administration were imposed by your committee.

Such a cutback is unprecedented in the experience of this agency.

We give you a hard budget but certainly not a crippling budget.

Mr. Chairman, on this basis I speak in behalf of the proposed allocations of both Apollo and NASA and urge passage of H.R. 7500 now before you.

Mr. MILLER of California. Mr. Chairman, I yield 5 minutes to the gentleman from Connecticut [Mr. DADDARIO].

Mr. DADDARIO. Mr. Chairman, the authorization bill we have before us today is to sustain an effort which is aimed at making the United States the leadership nation in space. It is one which we have already embarked upon by decisions made by the Congress in the past years. How well we meet this challenge will depend on how we support this program today and how we sustain it over the course of the years to come. Our success will reflect itself in the schedule which is on page 4 of the report that shows that if the progress continues as it is now based, if it is funded as we hope it will be, if this year's budget is supported as it is our intention that it will be, somewhere between 1967 and 1970 three Americans will successfully go to the moon and that this achievement will precede that of any other nation.

How far we have come in these years can be well illustrated by the fact that these models to my left are in scale and that the success of the Mercury program has depended upon a vehicle that is mounted on a booster of this size, the model to your extreme left. It is obvious by viewing the Saturn V, the model which is on your extreme right and by comparing it to the first model that great advances are underway.

If we were to analyze the Apollo program, we can look to the report which accompanies the bill and we can see the intricacies and complexities of our space program. I especially call the committee's attention to pages 9 to 16.

It is a fact that there has been a great deal of discussion here today as to how closely the committee has looked at this program and how much it has cut it back. Although the overall cut is something in the order of 5 percent, if you will turn to the schedule on page 9 you will notice that the amount being requested for research and development of Apollo comes to $1,087,400,000.

This is over $100 million less than was originally requested, and it is one which represents a 10 percent cut. Therefore, the attitude of the committee has not been just to make a broad gaged cut evenly across the board but, rather, to analyze the program closely and to add to the efficiency of NASA by taking corrective steps which would be constructive and helpful. I think this is what has been done. I would urge that the program be supported in full. The committee actions indicate that the job of looking closely into this entire program has been effectively done and that it is the kind of action which does warrant your support.

Mr. Chairman, the ultimate objective of the U.S. manned space-flight program is to achieve a capability for a broad program of manned space exploration, which will result in a position of leadership in space for the United States. A specific goal in this program is to land a man on the moon and return him safely to earth under the Apollo program. The Apollo spacecraft and mission will play a substantial role in establishing the United States as the leader in the major space science and engineering fields. Further, it will establish a background of knowledge and experience to be used for future space exploration and for the development of technological benefits to mankind. Our exploration of the moon will be the beginning, not the end, of a program that will expand over the years into a wider program of exploration of the universe of which we are a part.

As the Apollo is now designed, it will be a three-part spacecraft: with a command module, a service module, and a lunar excursion module. The command module will have approximately 300 cubic feet in which to house the three astronauts. This section is a most complex manned space-flight device which is demanding the best of our industrial skill. It will include the environmental control system needed to provide the proper atmosphere for the duration of the flight; a communications center for contact between the craft and the earth control center; a guidance and control system, along with associated computing devices and pilot displays to allow for the proper execution of the mission; and a landing system for a touchdown at a fixed point on return to earth. This 5-ton, 13-foot-in-diameter section must

also be designed to withstand the loads of the boost phase and to provide protection against meteorites and radiation during the flight in space. It must also provide heat protection for reentry at speeds up to 25,000 miles per hour; this will be done by a special material applied to its external surface, which ablates—or boils to a gas—on exposure to very high temperatures. These heating rates are 8 or 10 times higher than those encountered in the Mercury program. This module will also have to be equipped with small pitch control engines to stabilize the craft in orbit, and rockets to kick the module out of orbit in order to allow it to descend into the earth's atmosphere when the mission is completed. Thus, the command module must be equipped to house three men on an extended trip through space; lightweight, high performance, and high reliability will be basic requirements.

The next section will be the service module. This module will contain a 21,900-pound thrust rocket propulsion system, which will have the reliability to meet emergency conditions anywhere along the trip to the moon. The circumlunar voyage will normally last about 5 days, but the service module will have the flexibility to change course and return to earth if an emergency arises. Also, an orientation control system, hydrogen-oxygen fuel cells for electrical power supply, radiators for spacecraft cooling, radar, and supplies of oxygen will be located in the service module. This section will also be used to make midcourse corrections on the way to the moon, and to provide the propulsion from moon orbit back to earth. The engine has the remarkable capability of being turned off and on as many as 50 times. This section which is 14 feet long, 13 feet in diameter and 25 tons in weight will be jettisoned before the command module reenters the earth's atmosphere.

The third section will be the lunar excursion module, used to land two of the three crew members on the surface of the moon. This will require that it have engines enabling precise crew control in order to carefully lower the craft to the surface of the moon. Throttable engines allowing such a landing are planned to be tested in 1964. Such a landing maneuver will also require a specialized landing gear; this will be a six-legged stand with its own propulsion stage. There will be a separate propulsion stage for lunar ascent, with the lunar descent gear being left on the surface of the moon. Another requirement will be a manmade environment to house the crew members while they are on the moon's surface. The lunar excursion module will be a self-contained unit, weighing about 12 tons, with its own electrical power, guidance and control, communications, propulsion, and crew support systems. Due to the fact that the moon's gravitational field is only one-sixth that of the earth's and there is a general lack of atmosphere, this module does not need the structural and heat provisions that are required for a similar mission on earth. This module has been under construction since January 1963 by Grumman Aircraft Engineering Corp. and various tests will be started on certain parts of this section during 1964. Testing must be done with the lunar excursion module to make sure that it will protect the crew from the dangers of meteorites and radiation, which are much more prevalent on the moon than the earth because of the lack of atmosphere. The most hostile condition on the moon is these bumping meteors, which strike the moon at the rate of 1,000 strikes per hour. Since there are different requirements for this section and the job that it must perform, one of the distinctive features will be the broadview windows that will provide extensive visual reference for the crew during critical maneuvers, which they will have to perform in the lunar excursion module. Special types of glass are being experimented with now in order to fulfill the requirements of the moon environment on the craft. Further provisions must be made for the easy handling of this module as a spacecraft in order that the crew can dock the craft with the command and service modules that will have continued to orbit the moon, while the others were on its surface.

All three modules together will weigh about 42 tons, fully loaded, including the launch escape system similar to the one used on Project Mercury. These sections alone without the boosting rocket will be 80 feet tall, which is only 16 feet shorter than the entire Mercury Atlas spacecraft and rocket.

It was decided in July 1962, by the National Aeronautics and Space Administration, after extensive study, that the most economical as well as the quickest way to get us to the moon was to use a lunar orbit approach. Although there had been some thought given to proceeding simultaneously with two moon programs, the decision to go with one was a wise one.

NASA is now in the launch vehicle and spacecraft systems development phase which will grow into crew training and operational development upon which the lunar operations will be based. After the proper development program has been established, manned orbital flights will be conducted. In this way, the Apollo spacecraft systems can be tested and evaluated in a space environment; astronauts can be trained; certain operational techniques can be developed and practiced; and there will be the continuation of accumulating information on the effect of extended space flight on both men and machinery.

The second step in this program is the circumlunar flight. Under this procedure, the astronauts will make a trip to the moon without landing on its surface. This step will sharpen the procedure through which midcourse corrections and careful navigation are accomplished for the ultimate lunar landing itself.

The lunar landing will, of course, be the end accomplishment of the Apollo program. On this flight, once in orbit around the moon, all the spacecraft systems will be checked out. Two of the three crew members will enter the lunar excursion module at which time all the systems will be checked out again and the final decision will be made as to whether to descend to the moon's surface. The lunar excursion module will ignite an engine providing about 8,800 pounds of thrust. This impulse will place the lunar excursion module into an approach orbit that has the same time period of revolution as the command module. An eliptical orbit will be established so that the low point will bring the capsule to within 10 miles of the surface of the moon. In the event it becomes necessary to abort before landing, the equality of orbital periods assures a rendezvous of the lunar excursion module and the command module every 2 hours. At this stage of the operation, the lunar excursion module will be traveling at 4,000 miles per hour. The decision being made to land, the engines will be fired to slow the rate of speed, so as to approach and hover over the surface of the moon and then to make a landing. The engine to be used has already undergone static firing at a test stand and has demonstrated tremendous flexibility. It can be throttled as low as 1,100 pounds thrust, giving the crew engine control and some choice as to a point of landing. It is expected that this will allow the crew to maneuver in any direction as much as 1,000 feet in its choice of a landing site. The craft will then slowly descend and land on the surface of the moon at a speed of less than 7 miles per hour.

Once on the moon, the two crew members will first check out the lunar excursion module and prepare the system for takeoff procedure. One of the crew members will explore the moon's surface within the immediate vicinity of the craft in a space suit which will allow him a 2-hour period of activity. The other member will also participate in turn in this operation. This entire stay will last for 24 hours during which the astronauts are expected to perform certain assigned tasks including a period for sleeping. The ascent stage of the LEM will lift off leaving landing gear on the moon. It will assume a speed of 4,000 miles per hour in a predetermined orbit which matching that of the mother capsule will bring the two craft together. The astronauts will return to the command module, jettisoning the lunar excursion module. The mother craft has the power to pull itself out of the lunar orbit and accurately hit a 40-mile-wide reentry corridor to earth. Just before hitting the corridor, after the final flight path adjustments have been completed, the service module will be discarded and the command module will enter the earth's atmosphere by itself at 25,000 miles per hour. This part of the operation is similar to the reentry of Mercury as we have already experienced it.

In December of 1962 a model mockup of the command and service module was completed by North American Aviation Corp. which is the prime contractor for Apollo. The overall configuration of the command and service modules has been decided upon and firmed in design. All major subsystem interface requirements were defined in the same period. Preliminary design of the lunar excursion

module has been decided upon by Grumman Engineering Corp. and all subcontractors are now working on their own subsystem designs. Contract requirements have been quickly undertaken and work has proceeded to the point where the tooling for the production of the command module has been 75 percent completed.

In fiscal 1964, the command module will undergo intensive component and subsystem fabrication, testing and qualification and spacecraft fabrication. A tight manufacturing schedule is expected to be maintained to prepare for the necessary testing and development of the spacecraft. An important phase of this activity will be the flight testing of the RL-10 engine which can be turned off and on and throttled back from full power. Structural models will also be built to test the basic design and their ability to withstand the rigors of space flight.

Important work is already underway in the construction of the Apollo guidance and navigation systems. Since fiscal year 1962, the Massachusetts Institute of Technology has been developing this system which consists of three major parts: The inertial subsystem, the guidance computer, and the optical subsystem. As a result of the groundwork already laid, industrial contractors have already been selected to manufacture the equipment through which the position, velocity and trajectory of the spacecraft on its flight to the moon will be determined.

There are many parts to a project as large as Apollo, which in setting the moon as its goal is only part of a broader program that will, without doubt, affect the course of history for man. Taking a look at the future of space exploration and the role Apollo will play in this, the multimanned space station appears as the next step in space development. Most of the basic hardware needed for such a platform is already being developed. Such a station would have a variety of uses for both military and civil purposes. It could provide a scientific laboratory with an opportunity to study both man and his universe. It could provide an engineering and test laboratory for materials, hardware, and techniques for space operations. It could provide a command post for military operations. It could be used as a base for future space exploration, possibly beyond the moon. Apollo will play a major role in this since with minor modifications the present Apollo capsule could be used as a scientific laboratory and has the ability to orbit two men around the earth for 100 days or more in order to extend our knowledge of both man and equipment.

There is developing around the Apollo program a great fund of new technology which will unquestionably affect the development of our industrial potential. Involved, of course, is the prestige of the United States and it is our hope that Apollo will be the means through which the first man who places his foot on the moon will be an American.

Added to that is the necessary implication that the security of our country is also affected for man is about to conquer the media of space and in the near future building on the knowledge we are now accumulating we will develop the ability to go in and out of space at will. Without doubt, this will include the ability to inspect satellites in space and to neutralize them as well if they include a destructive capability. Yet we should not confine our thinking to prestige and national security alone, for the benefits to industry, to education, and to the increase of scientific and technical knowledge are incalculable. Although this space program is newly with us and has developed enormously in size and cost, the prospects for the future should encourage us to sustain this effort in the years ahead.

We are now on the threshold of space development, and beneath that threshold lie many possibilities which cannot even be imagined. It is certain, however, that while we proceed with such a project as Apollo because it is in our interest to do so, that from it will come immeasurable good to mankind.

Mr. Chairman, one part of the authorization bill which we are now considering represents an area of specific interest to man, for in seeking the ways in which man can function within our space program it holds hope for improved care of his health by increasing our knowledge of the human system.

Ever since the founding of the republic, our people have supported medical research and experiments designed to protect our men in battle or in strange environments. The history of the Army, Navy, and Air Force medical sections is a proud one, and the experience on which they have built their current medical capability is strong.

When the Space Act of 1958 was passed, Congress put a strong reminder in the basic law so that NASA would make full use of the scientific and engineering resources of the United States, with close cooperation among all interested agencies in order to have the most effective program and one which would avoid unnecessary duplication. This has continued to be an item of major concern in our committee. The record is full of reference to coordination of activities and this committee report enjoins NASA time and time again, as it has in the past, to work out better cooperative procedures with other agencies of the Government.

Medical research is sponsored throughout our Government, where there is special need. Not only does this make any single effort susceptible to duplication, but it also requires each sponsor to manage its program well, to insist upon justification in every instance, and to coordinate with others in the field so that maximum benefits may be assured.

As the space program developed, estimates were placed before this committee some years ago of the total effort needed. With the new goals approved by Congress in 1961, this effort has necessarily been increased. The committee has followed closely and personally the development of the program. The initial organization for accomplishment of the research was adjusted on November 1, 1961, to set up three new divisions. One is called the aerospace medicine; the second, bioscience; and the third, human factor systems. Each falls under different major offices of NASA. To contemplate the total life sciences effort in NASA, it is necessary to consider them as a whole.

The definitions of these three offices explain them more fully. Aerospace medicine provides operational support for the manned space flight missions, and conducts development and tests of systems and components to assure effective performance and safety of the astronauts. This affects the moon program most specifically since it is in the accrual of our bioengineering knowledge that the success of man in the Apollo program will depend.

Bioscience is directed at learning more about biological knowledge in space. It studies the effects on living organisms of weightlessness and radiation, both major obstacles which man will encounter and which he must overcome. Bioscientific studies are also aimed at searching for any evidence of life in outer space, and for any information concerning how life on earth may have developed.

Human factors, the third section, considers how man fits into advanced aerospace systems and how these systems can be improved. Right now, such research is largely ground based. Fundamental direct studies of the heart and circulatory system are being analyzed. Department of Defense, the Federal Aviation Agency, the Atomic Energy Commission and nongovernmental university and industrial groups are contributing to this knowledge.

With the structural division of life sciences research into these three areas, it has placed a strong responsibility on the committee to keep an eye on the direction and management of the effort. A substantial result from this examination is demonstrated by the reduction in the authorizations of all three sections in an attempt by the committee to guide further coordination. The continued improvement of research facilities in other areas of the Government, such as what has been described as the most modern and well-equipped bioastronautics research center in the country at the School of Aviation Medicine, Brooks Air Force Base, San Antonio, Tex., makes it necessary to work toward even greater cooperation and coordination in the use of these facilities and these resources. The tenor of the committee report in respect to the space program and military security also supports this desire.

It should be noted, parenthetically, that NASA has also appointed a new consultant to conduct a total review of the diverse programs which are carried on in this field. This is a welcome step, as it can lead to consolidation and a sharper effort. But NASA cannot consider its own program and its own mission without reference to the other Government programs. In this respect, it must take into account the past White House studies and the coordination which can and should be conducted through the Office of the Science Adviser to the President.

The research and development in aerospace medicine which will be underwritten by this bill in the coming year is directed primarily to learning more how to protect man on the longer space flights of Apollo and Gemini. Our longest flight so far has been the 34-hour flight of Maj. Gordon Cooper. As longer flights are conducted, more can be learned about the prolonged effects of weightlessness on our astronauts.

The aerospace medicine funds help manage the design of crew equipment and systems, plus a development and test program to make sure that equipment and techniques are capable of sustaining men during the Apollo and Gemini missions. The aerospace medicine program also is geared to train physicians and others in necessary specialized skills to meet the ground and operational needs of the program.

Projects are underway to design and develop astronaut crew equipment for Gemini and Apollo. This includes space suits, life support atmospheric control and distribution systems, survival equipment, restraint systems, and devices to manage food, water, and waste in flight. It can test environments which will be found in the space vehicles and during the missions and determine psychological effects on the astronauts. This information, which is derived from the ground testing phase, is fed back into the drawing boards to improve the capsules and the mission plans.

The space medicine program is a prerequisite to the flight schedule. It has to be done promptly and effectively, so that the information is ready in time. For example, it is now known what forces will govern the impact of the space vehicle when Project Apollo lands on the moon. This is being used to shape the flight crew couch and restraint system to protect the astronauts.

Knowing the forces, it is also necessary to know what man can stand. This calls for a thorough review of information obtained from prior tests, some further experiments if necessary, and the definition of tolerances to be met by the new equipment. In fiscal 1964, much of this work is programed to be handled at military testing laboratories. All the data we can secure, all the information we can obtain, helps rub out unknowns in the final program.

In flight for longer periods, man may also be subject to more illnesses or injuries. Aerospace medical planning must work out ways to treat them, as well as to identify them, possibly through new miniaturized equipment which can be built into the capsule. As we proceed into the bigger missions, new boosters are coming into use, with greater lifting power and acceleration. All of these factors have greater importance in the longer missions than they did in Project Mercury.

In the coming fiscal year, development of the space suits to be worn in the advanced missions is another important program. In the Mercury program, the space suit was basically a protective device to benefit the wearer if pressurization was lost. In the longer Gemini flights, and in the lunar landing trip, which will take 3 days out to the moon, a premium is placed on its wear while performing the basic missions. During the lunar landing, for instance, the rugged pressure suits must contain individual life support and communications systems for maximum mobility. The Apollo life suit is not just an emergency garment; it has got to sustain the man's life. It must fit into the environmental design of the capsule, and work with portable life support systems both inside and out. It can well be the most complex suit and supporting equipment ever developed.

Contracts have already been let for preliminary work on what this generation may well regard as America's greatest scientific challenge. Studies are under way to design the sensors which are used in recording the various physical functions of an aerospace pilot. The use of telemetering devices to transmit and collect information on men in space has been remarkable, and its use in hospitals is already being developed. It is of special importance in keeping track of the cardiovascular system as man undergoes extreme conditions, and we have learned a great deal.

Medical information is also critical to the longer stays in space. Study of life support over 6 months, or in connection with a possible orbiting space laboratory are essential. These reports will have a bearing on our security, no less than on the exploration of space itself. This combination of responsibility compels us to continue this momentum.

In the future, there are still decisions to be made that will shape this program. Congress must determine how we can take advantage of what we learn, within our resources, to increase our knowledge of the solar system and the universe. From that decision, defining our program beyond the lunar landing, we will best guide our future biomedical research.

As these programs develop it becomes increasingly imperative that we demand the most efficient operation possible for this is one area in which we must add to our concern over the cost of facilities and equipment the added factor of drawing away from our resources of medical manpower where we already find ourselves in short supply.

Mr. Chairman, it is because the Space Committee has been objective and constructively analytical in arriving at its recommendations that I can stand here and assure you this is an authorization bill which you should support in its entirety. I urge you to do so.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 10 minutes to the gentleman from Washington [Mr. PELLY].

Mr. PELLY. Mr. Chairman, the 1964 fiscal year NASA authorization bill, H.R. 7500, was reported unanimously by the House Committee on Science and Astronautics. I would be less than honest, however, if I did not say that I had considerable misgivings in voting with the other members of the committee, in view of the amount of money involved; namely, $5,238 million.

In this connection, I hasten to add that one of the compelling reasons that caused me to join with my colleagues on the committee was out of respect and, indeed, admiration for the very conscientious way that the members studied this year's legislation, and I may add, too, that not only did the members of the committee screen the NASA request carefully, but also, as a result of committee scrutiny, I think many improvements have been made which I strongly favor.

First, I want to commend the committee chairman, and likewise the subcommittee chairmen, especially the gentleman from West Virginia [Mr. HECHLER], under whom I served, for their patience and impartial conduct at the hearings, which allowed all Members on both sides of the aisle to pursue in detail the many questions we had concerning the program.

As I said, I voted in committee for this bill in spite of the differences I expressed and which appear in the report. I feel that space is certainly an important area of research and I recognize that it requires large sums of money to do this. This does not mean, however, that the space agency program should not be coordinated with other similar programs. By this I mean, for example, that space research should not be allowed to subordinate the full importance of the military aspects of the work that is being carried out. Nor do I think this agency should be in the same field as, for example, the National Science Foundation.

In particular, Mr. Chairman, I have stated my view in the report as to the priority of the Apollo landing programs. I sincerely believe that we need an overall reappraisal as to the priority of various national needs, including a tax cut, and I feel a stretchout of costly programs such as the Apollo, which are contributing so to our national debt, is desirable. I do not want any of this program at the cost of devaluation of our dollar or other catastrophies which could result from overspending and continuing Federal deficits.

Mr. Chairman, on the other hand, I am impressed with the progress NASA is making in the meteorological satellite field. NASA is accomplishing a great deal in the way of weather evaluation through the Tiros series of weather satellites. Also, the spectacular success of the recent Syncom communications experiment is gratifying, as has been the successful Relay and Telstar projects. These are truly significant accomplishments and indicate areas where mankind can benefit by scientific achievement.

The space committee has made significant strides this year in improving its oversight capabilities and in pressing NASA to improve its management processes. This is particularly true in the reprograming of funds, in requiring uniform design criteria and construction standards, and in separating out administrative operations. The separation of operating funds from research and development and the new requirement that any unspent moneys revert to the Treasury at each fiscal yearend on June 30 is a case in point. Likewise, in future, under this bill, unused authorizations will expire after 3 years. All of these

actions will improve the budgetary processes and I hope will cause NASA to seek committee approval for major program views and will generally improve their operations.

At this point, Mr. Chairman, I want to address myself to a further explanation of my separate views which appear on page 206—the last page—of the printed committee report on H.R. 7500.

Therein I expressed misgivings as to whether the cost of landing men on the moon was commensurate with the potential scientific rewards. I urged the House Committee on Appropriations to ascertain if in their judgment the amount of the authorization was warranted. I called for a stretchout in the manned lunar project to achieve savings, because, as I said, I believed there are higher priority national programs, including a tax cut, which would strengthen rather than weaken the Nation's economy.

Need I say that the United States' so-called moon-shot project, Apollo, to land two men on the moon and return them to earth has great and exciting appeal for many people, but with real justification, I think, it has drawn more than its share of criticism. In this latter connection, some, like former President Eisenhower, feel spending such an amount of money in a race to the moon is—to use his actual expression—"nuts." Also the initial glamour of the race with Russia seems to be vanishing, and a high percentage of the scientific fraternity find fault with the Apollo program on many specific scores.

A former president of the American Association for the Advancement of Science, Dr. Warren Weaver, summed up such feeling not long ago, when he said:

> I believe that most scientists consider the proposed expenditures quite unjustified on the grounds of scientific considerations; and also the frantic pace of the program to be wasteful.

Landing instruments on the moon, it is felt by many knowledgeable persons, would accomplish adequate scientific data faster and cheaper, and many students of the Soviet space effort believe this is the course Russia will follow.

Many scientists suspect that while we have emphasized exploration of the moon, the Soviets have concentrated their efforts on achieving military supremacy in space. Premier Khrushchev himself said on April 20, 1962, that his country had not decided whether to make a man-to-the-moon effort, adding that "it will cost a lot."

Sir Bernard Lovell, the great British radio astronomer, having visited the Soviet Union where he saw the Soviet deep-space tracking stations, says the Soviets are not even going to try to reach the moon. He said:

> The Russians take a very realistic view about the value of putting a man on the moon.

He suggested that instead, what the Soviet space probers intend to do is land instruments on the moon, or they may send a man around it for prestige reasons.

As to our own scientists, Dr. J. C. Warner, president of Carnegie Institute of Technology, on June 2 described the space program as vain, naive, silly, and dangerous.

This is an actual quote of Dr. Warner:

> The difficulty is that we are not involved in space exploration for the scientific or military values to be derived, but for the aggrandizement of national prestige that is somewhat naive and that requires such a concentration of our resources in both men and money that it could seriously jeopardize the Nation's future.

A physicist who is director of the Geophysics Laboratory of the Carnegie Institution, Dr. Philip H. Abelson, is another scientist who had taken the position that space can better be explored with unmanned vehicles. Dr. Abelson was quoted recently as saying that most scientists are opposed to sending a man to the moon by 1970. He said the administration's Apollo program will "have a direct and indirect damaging effect on almost every area of science, technology, and medicine," by diverting scientists from these fields. Dr. Abelson criticized the program on the basis that it might well delay the conquest of cancer and mental illness, and also on the basis that it would detract from our defense effort.

He said he believed a man should be sent to the moon eventually, but that he saw "nothing magic about doing it in this decade." His testimony was given before the Senate Space Committee in connection with this same bill that we are considering today. Dr. Abelson, besides being associated with the Carnegie Institute, is editor of Science. He told the Senate he conducted an informal straw poll among scientists not connected with NASA. The vote was 110 to 3 against the manned lunar program. Dr. Abelson said man's space exploration has limited scientific value.

Another poll occurred earlier this year, when a majority of 25 of America's 55 living Nobel Prize winners gathered in St. Peter, Minn., for the dedication of the first American memorial to Alfred Nobel, expressed serious reservations about a crash space program because of the waste involved.

While on the subject of waste, let me read a letter on this subject:

> I am a NASA employee and I know that in the area of economy there is little or no thought devoted to this effort of saving of the funds appropriated for the space effort.
>
> Many of the top management people have had little or no formal education in business management but are people promoted from the old NACA organization. Modern accounting methods are being approached haphazardly by letting each center design its own system and in some cases has gone completely out of bounds. In the manning levels prescribed by headquarters, NASA administration positions are limited, so to accomplish what the local centers desire they have entered into service contracts. One with General Electric at Huntsville, Ala., to design their accounting system, is costing at least $1.5 million. This same operation could be accomplished at half this if grades and positions were made available to hire competent people who would be permanent employees.
>
> This is not just common to Huntsville but is duplicated in Houston and in Canaveral. Further the applications of the accounting systems far exceed the need of the organization. This approach allows GE to build a system so great that their services will continue to be in demand.
>
> In other places management is reluctant to exert administrative control to require the employees to follow good time or job recording for cost applications for fear the employees will quit. They are well paid tradesmen and they aren't about to quit.
>
> Cost-plus contracts are also another area of bleeding the Government.

Speaking of waste, we are told, Mr. Chairman, that NASA is not even making the best use of its own scientists, nor is it consulting with those outside the agency. Dr. Warren Weaver, a member of the National Science Board, and a member of the National Academy of Sciences, insists that scientific considerations fail to justify the magnitude of the program. He says ours is a costly and disastrous pace, and Mr. William H. Meckling, director of the economics division of the Operations Evaluation Group Center for Naval Analysis, Franklin Institute, disputes claims that the technological developments growing out of big space programs will more than pay for themselves.

In my own congressional district, at the University of Washington, Dr. John H. Bollard, chairman of its aeronautical and aerospace program, recently made a speech saying the Government's urge to reach outer space appears to be more political than scientific. He said the present ambitious program is especially alarming in view of the dangerous sun spots which will be at the top of their 11-year cycle in 1970, the year this Nation's space flights are presently directed toward reaching the moon. Dr. Bollard said there had been relatively little scientific feedback that is of benefit to the populace, from the tremendous studies connected with space and its effects on man. He said that all-out attention is focused on the space flights instead of the long-range benefits to mankind.

Early in June, I read an interesting article in the Christian Science Monitor which told of the onetime criticism of a Boston engineer, Richard S. Morse, of the then Nation's technically lagging space effort. This occurred before the first Soviet manned space flight, in the mid-1950's. The article said that today, after 4 years in a key Defense Department post, Mr. Morse feels quite differently, and on the contrary, that swelling Government research money threatens to drown industrial research and impair the Nation's economic future.

This former Assistant Secretary of the Army during both the Kennedy and Eisenhower administrations, told a congressional committee:

> The present environment of federalized research and development is rapidly becoming a scientific WPA, not conducive to the development of commercially practical ideas or the education and training of management talent.

Mr. Morse is another of the group of scientists and engineers who have been publicly deploring the Nation's vast effort to put a man on the moon before the Soviet Union. This onetime head of the Cambridge National Research Corp., before coming here to Washington in 1959, has taken the position that overspending is having harmful effects on

the many major American corporations, on universities, and on new scientific talent. He expressed this view to the Senate Small Business Committee and urged a reappraisal of the research and development effort. Mr. Morse is a technical adviser to the Commerce Department and teaches at the MIT School of Industrial Management. His criticism includes the following:

1. Too large dependence on defense work has made "the great majority of our large defense contractors totally unequipped to engage in successful and highly competitive commercial business at home or abroad."

2. "Our current tendency to expand Government facilities to house Government-operated research and development activities (drains off) experienced engineering and management talent" from business.

3. "Under the impact of Federal funding, many of our larger universities, influenced by their desire for growth, are operating business activities which could be undertaken more appropriately by industry."

4. Political overtones play an important part in establishing the locations of federally financed business enterprises, the increasing number of nonprofit research organizations working hand in hand with Federal laboratories. These compete with industrially oriented business corporations engaged in essential non-Government work.

Mr. Chairman, this explains my misgivings and why I filed separate views.

Mr. Chairman, I do not wish to imply that all our scientists, by any means, are opposing the lunar landing project, or favor a slowdown in this program, but I have raised the issue because I think a great many thinking people are questioning whether the projected date of landing a man on the moon could not be delayed to better advantage. I have not tried to accumulate a full list of testimony which supports my view in favor of a stretchout of the program, but as the committee has been holding hearings, from time to time I have been noting statements here and there which are critical of the Apollo project. For example, Dr. Polycarp Kusch, chairman of the physics department at Columbia University, questioned the top priority given the manned moon shot. Dr. Kusch, Nobel Prize winner in physics, questioned the merits of the Apollo program as compared with other national goals and interests. He is quoted as saying:

I continue to believe that the new exploration should be undertaken only with the full awareness of other important goals and purposes. The emphasis on it should not exclude the solution of problems that are equally pressing, equally challenging, and no less exciting.

Among these problems, Dr. Kusch cited the dangerously low water supplies on this continent, as well as the future needs for fuel when present supplies of fossil fuels are exhausted.

Dr. Harold Urey, Nobel Prize-winning chemist and University of California professor, says the race to the moon is really being paid for because people wish to be excited. He says vicarious adventure is the real reason.

On the other hand, Dr. Hugh L. Dryden, Deputy Administrator of NASA, says this project is to develop the ability to do whatever space jobs—civilian or military—need to be done.

Whether this is "leaf raking" or needed technological advance, a current appraisal for Congress by experts of costs and evaluation of benefits should be undertaken. The priority of reducing expenditures to justify a tax cut should be carefully weighed in a nonpartisan and objective basis.

Mr. Chairman, as I said in my separate views, I find it hard, if not impossible, to justify the $1,087 million allowed in this bill for the Apollo moon project in relation to and commensurate with scientific benefits. So, as I say, I have serious misgivings as to the project's urgency and the resulting increased cost, which, as I understand it, will level off at $4 billion a year, or thereabouts, in the future. In my views, I have strongly urged the Committee on Appropriations to see if such a large cost is warranted and whether, in the overall national economic interest, substantial additional cuts are not desirable under a slowdown policy. To me, $20 billion is just too much money to spend for landing a man on the moon, when for a great deal less money, we could place instruments there that would give us much of the same scientific information.

The lunar landing project need not be abandoned. It could be programed for, say, 1980. In the meanwhile, we would have developed the basic skills, knowledge, hardware, and experience to make it much less expensive, without the real risk that we may be wasting great sums on winning a race when there is not any race. After all, the planning and design of the moon landing craft, itself, as I understand, was to be based on findings of some of the moon probes. However, in 11 tries to send probes to, or close by the moon the United States has had 11 failures. I wonder if we should not know more about the surface of the moon before we finalize the nature of the landing craft? This craft may have to be completely redesigned. So, I have favored a stretchout of the Apollo manned lunar landing project, which I think would save money and not, as I said in my report, do violence to other aspects of the program.

Mr. Chairman, H.R. 7500 should have the support of Congress and I shall vote for it, at the same time reserving to myself the right to vote for various amendments to cut the bill. Later on, when the appropriation bill is considered, I hope it will be considerably below the amount in this authorization bill.

In all, the House Science and Astronautics Committee's cutback amounts to less than 10 percent of the $5.7 billion requested by NASA for fiscal 1964, and much of the reduction is a deferral and not a saving. The exploration of the universe is going to cost a great deal of money and take a very long time. This is a program for orderly progress and not blank checks. I think this agency budget, with its multiplicity of projects, will require continuing and increasing oversight. Meanwhile, I am sure a very hardworking committee has done about the best they can under the circumstances.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 5 minutes to the distinguished gentleman from Iowa [Mr. JENSEN].

Mr. JENSEN. Mr. Chairman, I rise in opposition to the amount requested in this bill; specifically that part to try to land a man on the moon. We are being asked today to authorize the spending of $5,238,119,400 out of the many empty pockets of our already overburdened taxpayers. This amounts to more than $100 for each American family, on an average, to pay in fiscal year 1964, mainly for the purpose of trying—just trying mind you—to put a man on the moon. For what? I ask in all sincerity, for what?

Mr. MILLER of California. Mr. Chairman, will the gentleman yield?

Mr. JENSEN. Yes. I am pleased to yield.

Mr. MILLER of California. I shall yield the gentleman additional time, such time as I take up.

Mr. JENSEN. Good.

Mr. MILLER of California. You are putting a man on the moon as part of the exploration of outer space, and merely as a plateau in the development of this process.

Mr. JENSEN. I favor the exploration of outer space so long as it is sensible.

Mr. MILLER of California. If putting a man on the moon purely for the sake of putting a man on the moon was the object of this thing——

Mr. JENSEN. OK.

Mr. MILLER of California. I am going to give the gentleman some additional time when we have completed this colloquy.

Mr. JENSEN. I am listening.

Mr. MILLER of California. Wait a minute. The gentleman asked for an explanation. I am sick and tired of this type of approach. Does the gentleman want an explanation? Does the gentleman actually want one?

Mr. JENSEN. Yes. However, I doubt you are going to give me much enlightenment.

Mr. MILLER of California. There are some people who would not be enlightened by it.

Mr. JENSEN. I remember the times when it was quite difficult to enlighten the gentleman, but the gentleman has improved since that time.

Mr. MILLER of California. I wish I could pay the same compliment to the gentleman from Iowa. This is a plateau. It does not mean that the objective is getting to the moon. We do not know whether we can ever land a man on the moon, as yet. It means, though, that this is a process of getting into outer space to develop the techniques that are necessary for rendezvous, the techniques that will give us an application in the military field which has not as yet taken place. Just a few minutes ago the gentleman from Washington [Mr. PELLY], quoted Sir Bernard Lovell as being opposed to this. Maybe, he has received the Air Force Space Digest for July 1963 in which Sir Bernard Lovell points out the reasons why we should land a man on the moon. They are purely scientific.

Sir Bernard Lovell is one of the greatest scientists in this field in the United States.

The CHAIRMAN. The time of the gentleman from Iowa has expired.

Mr. MILLER of California. I yield the gentleman 2 additional minutes.

Mr. JENSEN. I thank the gentleman from California. This world is full of dreamers. Some of their dreams come true, but too often they wake up and find that they have just been dreaming.

Mr. Chairman, I may be wrong on this subject, but I have not convinced myself yet and neither has the gentleman from California convinced me that we should spend over $5 billion for this purpose.

Mr. MILLER of California. I tried.

Mr. JENSEN. Now, I hope and pray that the Members of this Congress will not lose their God-given commonsense in the consideration of this bill or in considering any bill which comes to the floor of the House or the other body, which seeks to spend billions or even millions of our taxpayers' dollars.

Mr. Chairman, we have a Federal debt today of over $305 billion. It is difficult to comprehend just what a billion dollars really is. Let me give you a little idea of what $305 billion amounts to. That, Mr. Chairman, is more than the actual value of all the land in America, all the cattle and poultry, hogs and sheep, all of the farm buildings, and all of the machinery on all the farms in the United States. That gives us a good idea of what $305 billion amounts to. Think of it my colleagues.

Mr. Chairman, in closing I ask this simple question in all sincerity: What will it profit us and the peace-loving peoples of this wide world when our dollar shrinks to possibly 10 percent of its present value, and it will just as sure as we are sitting or standing here today unless we make an about-face, and soon. Why, Mr. Chairman, most every nation in this world has lost confidence in the stability and the value of the American dollar, to the end that they have demanded gold in payment of their export to the United States to the end that we have lost over $7 billion of our gold during the past decade. Does that mean anything to you who vote for all these huge expenditures of your people's dollars? Remember this, my colleagues, it is not only the rich that pay the bill for these huge Federal expenditures. It is the ultimate consumer of goods that pays all of the bill, every dime of it, because every tax is piled onto the price of every commodity which the ultimate consumer buys. Who are these ultimate consumers? Seventy percent of them are people whose income is less than $6,000 per year, hence they pay 70 percent of the entire bill.

Mr. Chairman, I do not stand here and plead with you, my colleagues, just for the sake of talking. I have been on this job for almost a quarter of a century. I have tried to be reasonable, I have tried to be fair with my colleagues, and more especially with the people of America and this great blessed country of ours, which you and I love. But we are losing everything for which our brave youth served, fought, and died, and we are losing it fast, the competitive, free, private enterprise system. That is what they served, fought, and died to protect and preserve. They did not fight for socialism or the New Frontier concepts. They fought for America, for the things which made America great, were they white, black, yellow, or brown. And let us not forget it for 1 minute, and I hope and pray we act accordingly.

Mr. MILLER of California. Mr. Chairman, I yield 5 minutes to the gentleman from Indiana [Mr. ROUSH].

Mr. ROUSH. Mr. Chairman, my distinguished colleague spoke of dreamers. I think it has been the dreamer who has made America the country it is today. If I must make a confession I would confess I would hope I might be classed with one of these dreamers.

Back in the spring of 1956 I was running in a primary contest seeking the nomination of my party for the very office I now hold. At that time I made a couple of speeches in which I made the statement that the United States should engage in activities which would prepare it for the day when interplanetary travel and the exploration of outer space would become a reality. Of course, my suggestions were very coldly received. I was naive enough to think they would be very warmly received. I dropped this topic from the subject matter of my speeches because my people thought that the statements were rash and inappropriate for any serious-minded candidate who was seeking this high office. Then what happened? On October 4, 1957, the Soviets electrified the world with an announcement that they had placed in orbit a satellite named Sputnik. Not only did this accomplishment arouse the scientific community, but the psychological impact was felt throughout the world. I am sure my colleagues on the committee remember the day when Mr. George V. Allen, Director of the U.S. Information Agency under President Eisenhower, appeared before the committee and testified as to the impact that this Soviet accomplishment had on the entire world. These are his words:

> The successful launching of Sputnik I created an intensity of reaction throughout the world which has rarely been paralleled by any other single discovery or invention. The public awareness of the first sputnik was almost universal. People in remote areas of even the most remote countries knew of this sensational event within a few days.

This marked the beginning of a new era—an era of exploration and exploitation of the wonders of space and universe.

Mr. Chairman, the country was justly aroused and we also engaged in an intensified effort to place ourselves in this race. Today we are discussing perhaps the most complex bill we have discussed since I have been on the Committee on Science and Astronautics for some 5 years now. In addition to the moneys involved and the programs involved, I believe we are involved in a much larger issue. Again I would like to refer to one of Mr. Allen's statements, because his statement really aroused me and pointed up to me what we were actually endeavoring to do in this space effort. He stated as follows:

> Probably the most significant result of the Soviet success is a change in the overall impression of the people of the world about the Soviet Union. In public opinion parlance we speak of this as the revised Soviet image. The change goes beyond the field of space technology. It covers all of Soviet science and technology plus Soviet military power and general standing.

I do not think it can be disputed that before sputnik very few people believed that the Soviet Union could possibly challenge America in any scientific or technical endeavor, but now Soviet successes in space are taken as an indicator that the Soviet Union can challenge us. Much was made of the fact that we are spending over $5 billion in this effort. I would call your attention to the fact that we are spending over half of our budget, over $50 billion, in the defense of our country. We are concerned about the advances of communism. We appropriated billions of dollars and sacrificed thousands of lives in Korea as a defense against communism. We are concerned about Cuba, Laos, Vietnam, Thailand, China, and other areas of the world where we are defending against communism. This is as it should be, but now we have the chance to go on the offensive in a peaceful way in this great battle in the cold war. I think it is time for us to undertake this endeavor. But now we have the chance to go on the offensive and prove to the world that a free country, that a democracy, that a competitive system cannot just survive but can lead the world in scientific and technical achievement.

This is a battle in the cold war. It is an effort which not only commends itself to the great adventuresome American spirit but to the betterment of our way of life. The victory will not be in landing on the Moon or exploring Mars but the victory will be that the spirit, ingenuity, and determination of a free people have prevailed.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 5 minutes to the gentleman from Illinois [Mr. RUMSFELD].

Mr. RUMSFELD. Mr. Chairman, I thank the gentleman for yielding me this time to discuss some of the aspects of H.R. 7500, the 1964 National Aeronautics and Space Administration Authorization Act.

The committee has labored diligently to bring to the floor the best possible bill. During the course of lengthy deliberations, there naturally have occurred differences of opinion and approach. I would state, however, that the space program and, particularly, its impact on national security, is certainly not a partisan matter. Where individuals, including this Member, have differed with the committee, we have set forth these views as additional views in the report. But before discussing some of the specific differences, I want to commend the chairmen of the committee [Mr. MILLER] and of the Subcommittee on Applications and Tracking and Data Acquisition [Mr. HECHLER] for their courtesy and fairness, and the members on both sides on their determination to explore, to the extent possible, all of the many aspects and

complexities of our civilian space program. It is my belief that in view of the time and staff assistance available to the committee, they have done a good job. Hopefully, in future years, with additional staffing, and I know that this subject will be covered in greater detail by the gentleman from Florida [Mr. GURNEY], we will be able to do an even better job of reviewing the ever-growing NASA expenditures.

The administration request for 1964 was approximatly $5.7 billion. The bill on the floor today proposes authorization of slightly in excess of $5.2 billion. This, it should be pointed out, compares with the $3.6 billion authorization in fiscal year 1963, so while there have been some cuts from the administration's request, the total authorization in this bill is still substantially in excess of the 1963 level. It should be pointed out further that in both committees and in subcommittee, many amendments were offered by various Members to further cut and revise the various programs in this budget. I sincerely believe that it could be cut more and am hopeful that the Appropriations Committee will see fit to take action in this direction.

Mr. Chairman, I should at the outset state that I intend to support amendments which will be offered today by the gentleman from Indiana [Mr. ROUDEBUSH] to reduce facility training and research grants, by the gentleman from Washington [Mr. PELLY] to reduce the authorization for advance design development, by the gentleman from New York [Mr. WYDLER] to delete authorization for the proposed Electronic Research Center in Boston, Mass., and by the gentleman from Pennsylvania [Mr. WEAVER] to reduce the authorization for the Life Sciences Research Laboratory.

With respect to the Electronic Research Center, it should be pointed out that the committee has wisely decided to delay construction of this facility pending further report from NASA as to both the justification for such a facility and also the desirability of placing that facility in Boston, Mass. My only point of difference with the committee action is that it is my hope that upon receipt of the report from NASA the matter will be considered by the Congress as a whole, in view of the $50 to $60 million that is involved, rather than simply be directed to the House Science and Astronautics Committee for approval or rejection as the committee may deem advisable.

Mr. Chairman, I would like to turn to a necessarily brief discussion of national space goals. We are being asked to provide $5.2 billion for the programs of the National Aeronautics and Space Administration for fiscal year 1964, or over 5 cents of every Federal tax dollar. For the past 4 days, I have inserted in the CONGRESSIONAL RECORD statements questioning the logic of our national space goals and, in addition, have submitted additional views to this report.

The focal point of the criticism is the Apollo project for a manned lunar landing, which, according to NASA officials, absorbs approximately $3.2 billion of this authorization bill. To quote from an article in the August issue of Atlantic by Dr. Robert Jastrow, Director of the Goddard Institute for Space Studies, and Dr. Homer E. Newell, Director of the Office of Space Sciences in the National Aeronautics and Space Administration headquarters, I quote:

> The Apollo budget which has produced the current outcry stems from a decision taken in 1961. At that time, the man-in-space program was expanded beyond the limited Mercury effort to a full-scale attack on the problems of manned flight to the moon and planets. The impetus for the decision came from a series of Soviet achievements in February and March of 1961, when the U.S.S.R. launched in rapid succession four spacecraft, each weighing 10,000 pounds or more. These were followed on April 12, 1961, by the successful orbiting of Major Gagarin in a 14,000-pound spacecraft and his safe recovery after a circuit of the earth in 1 hour and 47 minutes. Thus the world saw the Soviet Union achieve man's first flight in space.
>
> On May 26, 1961, President Kennedy laid the Soviet challenge before the American people. He urged the Nation to commit itself to the goal of landing a man on the moon and returning him safely to earth before the decade was out. The President's message suggested the reasons underlying this recommendation: we faced the gloomy prospect of standing second to the U.S.S.R. in manned flight for years to come; the manned lunar landing would be the first major space achievement in which the U.S. effort could reach its full strength; a vigorous effort could achieve a manned lunar landing by the end of this decade; and if the United States set 1970 as its target date for the lunar landing, it would have a good chance to reach this goal before the U.S.S.R.
>
> President Kennedy asked for a careful examination of the proposed commitment: "I think every citizen of this country as well as the Members of Congress should consider the matter carefully in making their judgement * * * there is no sense in agreeing or desiring that the United States take an affirmative position in outer space unless we are prepared to do the work and bear the burdens."
>
> In July, 1961, the Congress voted overwhelmingly for the funds requested to move the space program into high gear. In 1962 Congress reaffirmed its support by doubling the budget of the previous year.

Today, in 1963, we are again asked to reaffirm our support of that decision. I, for one, am reluctant to do so. The principal reason for support of this bill is that, unfortunately, there is no other program, comparable to the moon program, to develop space techniques at this time. Specifically, my concern is the emphasis of this Nation on nonmilitary space programs involving outer space, on the one hand, and, on the other, the fact that this Nation has not authorized a single military space weapons system. To quote Air Force Chief Gen. Curtis E. LeMay:

> We must not risk the danger of waiting for the enemy to demonstrate capability before we undertake development of our own. The visible threat requires a vigorous military program.

Despite the clear and present danger of the cold war, this Nation is continuing to give top priority to the prestige of the moon program for peaceful purposes, while we are failing to make any attempt to comprehensively reevaluate and reappraise our national space posture and national space goals in the light of the cold war in 1963.

Moneys authorized by this bill, as previously, are basically for nonmilitary, scientifically oriented programs. Military space programs are authorized through the House and Senate Armed Services Committees. The roles of the National Aeronautics and Space Administration and the Department of Defense and the extent to which national security is involved in the civilian space program have been difficult to define. It is my conviction that the space goals of this Nation must be directed toward national security as well as to peaceful development of space. I believe that a clear definition of space-age responsibilities between NASA and DOD, and vastly improved coordination between those agencies, are necessary to the development of an effective program if the military role in space is to be properly implemented. The Congress and the country are properly concerned about the present course of the U.S. space program as we consider this $5.2 billion NASA authorization bill. Perhaps nothing is so portentous for the future security of the United States as the proper emphasis on space developments.

The one aspect of the space program of which all Americans are aware is the so-called moonshot, programed at a cost of $20 billion to $40 billion or more. Frequently, comments are heard as to the potential "prestige" of the moonshot and the urgent need to "beat the Russians to the moon." These expressions are, to be sure, sincere. There is little doubt but that by successfully completing the moon shot, the United States will gain vast prestige. But, while gaining such prestige in our efforts to beat the Russians to the moon, this Nation runs the risk of jeopardizing our national security. Specifically, I find it difficult to justify the expenditure of this amount of money, over $1 billion of which is authorized by this bill, for the Apollo moon project in relation to what I believe to be its technological, scientific, and military benefits, when compared with other alternatives available to us.

The crux of the argument falls on the distinction between the areas of space surrounding earth to a distance of 100 to 500 miles, called inner space, and the far reaches of space, hundreds of thousands of miles away, called outer space. Exploiting either of these vast areas will result in much knowledge which could be employed in exploiting the other in addition to adding substantially to national scientific know-how. However, the result of the manned moon landing will be largely prestige, while the result of achieving supremacy in inner space will be the ability to introduce or prevent the introduction of nuclear-armed satellites, together with other significant national security factors, such as the possibility of influencing or controlling the command and control systems of a potential enemy, or of preventing such influence or control of our own command and control systems as well as communications, reconnaissance, and surveillance capabilities. If the Russians orbit a military space platform, even if it were not employed militarily, they could use the 2- to 5-year lead time to press their advantage at the bargaining table. Given an

absolute weapon superiority, it is possible for a nation to implement its policies for peace or war, on its own terms.

The present announced goal of this Nation is to develop space for peaceful purposes to assure that we are not preempted in this new dimension. The determination to proceed with the moonshot indicates that this goal refers in large part to outer space. This is a noble ambition, but, I believe, it ignores the main thrust of the Soviet space aim, which is to dominate inner space through the ability to exercise control over the surface of the earth.

Every indication leads a prudent man to the belief that the Soviet goal in space is no different from Russian goals in other media, namely, world domination. The missile ambush in Cuba of but a few months ago shows categorically Soviet ambitions. Specifically, Soviet space successes demonstrate that they possess good capability with heavy payloads, some capabilities in rendezvous techniques, and excellent endurance performance, all of which emphasize their greater concern with inner space. Together with this, one must consider continued Russian successes in the field of nuclear testing and their explosion of a vastly powerful 50-megaton bomb, which, if detonated from space could conceivably devastate hundreds of square miles of the earth's surface.

In short, the Soviet potential in inner space could, in the immediate future, pose a significant new fourth-dimensional threat to our national security. Perhaps equally significant is the way in which such a threat from space, assuming this potential military capability is not used, could be employed to advance and buttress the known Soviet techniques of nuclear and missile blackmail.

With this distinct possibility—this threat facing us as a Nation—what course should we pursue? Should we continue a major effort, at great expense, to place a man on the moon? Should we continue to deemphasize the national security aspects of inner space? I suggest that such a course imperils national security.

To my knowledge, the United States does not, today, have a top priority program to achieve military superiority in inner space. The United States is not proceeding rapidly with a single military space weapons system. In addition, there is no high-priority, comprehensive attempt being made to reevaluate and redefine our national space goals. While I appreciate that the military aspects of space do not fall within the jurisdiction of this committee, I believe that military space programs are not proceeding at a responsible pace, principally because of the vast sums being expended on the moon program and the resulting drain of technical and scientific talent which the "urgent" quest for the moon causes. Specifically, we have committed ourselves to less desirable and less urgent national space goals.

The Congress, in the National Aeronautics and Space Act of 1958—Public Law 85-568—described the policy and purpose of the act as follows:

SEC. 102. (a) The Congress hereby declares that it is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind.

(b) The Congress declares that the general welfare and security of the United States require that adequate provision be made for aeronautical and space activities. The Congress further declares that such activities shall be the responsibility of, and shall be directed by, a civilian agency exercising control over aeronautical and space activities sponsored by the United States, except that activities peculiar to or primarily associated with the development of weapons systems, military operations, or the defense of the United States (including the research and development necessary to make effective provision for the defense of the United States) shall be the responsibility of, and shall be directed by the Department of Defense; and that determination as to which such agency has responsibility for and direction of any such activity shall be made by the President in conformity with section 201(e).

Clearly, the emphasis, as between NASA and Department of Defense, of our national space program is determined by the President. I suggest that the emphasis as indicated by a military space request of slightly more than $1.5 billion for fiscal year 1964 as opposed to a NASA request of $5.7 billion, has not properly reflected the national security aspects of space exploration.

What course should be taken if we are to concern ourselves with national security aspects of space? I suggest that the first step, through an urgent note sounded by the Congress, is to establish immediately a top priority select committee of the House of Representatives, composed of members from both the Armed Services and Science and Astronautics Committees, to reevaluate, reappraise, and, if the facts warrant, as I sincerely believe they will, redefine our national goals in space, and then take prompt action to achieve revision of the emphasis, approach, and allocation of funds in our civilian and military space programs. Until such a report is submitted and this question has been fully aired, current civilian programs should move ahead at a reasonable rate.

The United States has achieved a high level of competence in space disciplines and techniques. We have a start toward a military space program. We have, in addition, the National Aerounautics and Space Administration, representing a high degree of space competence. The question is one of emphasis. Bluntly, the question is national security. In short, I think that it is essential for space military superiority and hence survival as a nation to put far greater emphasis on innerspace programs.

Mr. Chairman, as a nation, we could perhaps afford to lose the race to the moon, if, indeed, there is presently such a race. But even if there were such a race, it would be a race of prestige, a race for the dramatic demonstration of scientific and technological space competence. On the other hand, for our very survival, we cannot afford to lose the race with the Soviets involving the national security aspects of space.

In the document authored by Drs. Jastrow and Newell which I cited earlier, titled, "Why Land on the Moon?" which is currently being circulated as a NASA document the administration has set forth its reasons and justifications for the $20 to $40 billion expenditure on the Apollo project. As sound as the decision may have been in 1961, the arguments today are unconvincing. The first point cited—on page 4—builds up the strawman argument against the moon program that the funds might better be spent on medical research, education, and so forth, and then proceeds to point out that space money cannot readily be rerouted. This, of course, is not the question involved.

The next point—on page 5—states that the following positive values can be derived from this investment, and I quote:

The fruits of research into fundamental problems of science, economic returns from the application of satellites to communications and weather forecasting, long-range technological benefits accruing to industry, a general stimulus to science and science education, and, most important, the security which comes from leadership in space.

I would respectfully suggest that the so-called "positive values" would accrue to this Nation regardless of whether or not our space program was aimed at supremacy in inner space or the manned lunar landing in outer space. This, again, is not the question. On pages 5, 6, and 7, they superficially discuss the advantages of manned lunar exploration as opposed to less expensive unmanned lunar exploration, stating that "the heart of the program is man in space, the extension of man's control over his physical environment," and conclude by saying:

Thus the pace of the program must be set not by the measured pattern of scientific research but by the need for vigorous response to the national challenge.

This frequent reference to the "national challenge" is indeed an illusory concept. If prestige seeking is the "national challenge," then possibly we could all learn a good deal by reading Al Capp's "Li'l Abner" comic strip and studying the psychological motivation behind the "shtoonk," the worthless animal that achieved its desirability simply because it was worth nothing at all. Pages 8 through 17 profess to discuss the scientific objectives of lunar exploration, yet nowhere do these administration spokesmen come to grips with the national security aspects of inner space. They point out that out of this interest and activity of the moon race a separate discipline is forming with a distinct entity and integrity, called "space science," and that "this revival of the spirit of catholicity in science is an important accompaniment to space research." I submit that much of what they say is equally applicable to exploration of inner space.

They conclude, and I believe that it is important to understand the supposed theory behind this $20 to $40 billion ex-

penditure of the taxpayers' dollars; and I quote:

Even more valuable for the future welfare of the Nation, the space program has a pronounced effect on young people. It appeals to the imagination of the student, and provides him with an additional stimulus to remain in school, to discipline his energies to the attainment of constructive ends, and to acquire the training necessary for advanced scientific and technical work. This can be one of the great contributions of space research—that through its general interest it may assist in the transformation of values which is so badly needed for the realization of the full potential of talent and energy in the United States.

These are the specific values of space exploration: the benefits of basic research, economically valuable applications of satellites, contributions to industrial technology, a general stimulus to education and to the younger generation, and the strengthening of our international position by our acceptance of leadership in a historic human enterprise. The current discussion of these values in the space program has served the United States well in directing its attention to questions of national purpose. But, however we may try to break the program down into its elements and to attempt a detailed balancing of debits and credits, the fact remains that the space effort is greater than the sum of its parts. It is a great adventure and a great enterprise, not only for the United States but for all humanity. We have the power and resources to play a leading role in this effort, and it is inconceivable that we should stand aside.

To summarize briefly, I believe it can be said that the principal reason for supporting the moonshot portion of this bill, for voting for $5.2 billion for fiscal year 1964, is the lack of a well-defined alternative today and the hope that a select committee of the House will be appointed to immediately study the logic of our national space goals. The argument is made that this program has military implications. To be sure, it does. But the question is the relative extent of these implications when compared with inner space emphasis. When pressed for an argument favoring the moonshot, the comment is frequently made that it is a trip similar to that made by Columbus, exploring in the unknown, with great prestige involved. Well, that is fine. But there also would be prestige and knowledge of the unknown gained by achieving supremacy in inner space. And the exploration and supremacy of inner space has the added national security advantage, which I believe to be of utmost importance. When further pressed for an argument for the moonshot, I have heard the statement, "Well, we have started the moon program and we cannot stop." I reject this argument and suggest that we cannot afford to continue to deemphasize the military implications of inner space. We cannot risk our national security and the freedom of the whole world by continuing to drain the dollars and scientific and technical talent available in this country by continuing the race to the moon, which very likely is no race at all, and ignoring the very urgent and vital race for supremacy in inner space.

Mr. Chairman, for this Nation, today, in 1963, to publicly alter our aproach to the space age would require a major and significant change in national policy. One obvious deterrent to such a dramatic change of policy is that inevitably the personal prestige of those who have made the initial decision and those who have vigorously supported this original policy would be in jeopardy. This, of course, would touch both the present administration, the past administration, and members of both political parties here in the Congress. However, I am convinced that both the administration and the Members of Congress are more concerned about the course of this country and the security of the free world than they are about personal prestige. And, further, I am hopeful that regardless of any personal opinions on this complex subject, all Members will assist in seeking a select committee of the House to study these national space goals and, if the facts warrant, make recommendations to revise these goals. I have today introduced a House resolution calling for a select committee of the House to study our broad national goals in space; a task that no congressional committee is now performing, and urge the support of each Member.

Mr. Chairman, any problem of such complexity and uncertainty is subject to varied interpretations. It would be excellent if we could wait until all the facts were in. But all the facts are never in, and national security must not wait. I know that every Member of the Congress is vitally concerned with national security. I claim no secret intelligence or special knowledge. My one purpose in this statement is to express my concern—indeed, alarm—about the logic of our national space goals. I dare not, in good conscience, both as a Member of Congress and as a citizen of this country, fail to raise these serious questions for the consideration of the Congress.

Mr. Chairman, there has been much talk of dreamers today. I would suggest that unless we as a Nation promptly address ourselves to the national security aspects of supremacy in inner space, the dream of the moon landing may well turn into a nightmare.

Mr. FULTON of Pennylvania. May I compliment the gentleman from Illinois on his fine presentation and his good work on the committee.

Mr. Chairman, I now yield 5 minutes to the gentleman from Iowa [Mr. GROSS].

Mr. GROSS. Mr. Chairman, in the light of the proposal in this bill to locate an electronics center at Boston, Mass., I should like to review a little of the history of the space laboratory at Houston, Tex. I have before me the Washington Sunday Star of November 18, 1962, from which I propose to quote briefly. The article is entitled, "Moon Flight Plans Cause Houston's Surging Boom." The newspaper says:

In mid-August the criteria were approved by Space Administrator Webb and his Deputy, Hugh L. Dryden, although this fact was not made public at the time.

This apparently was in mid-August of 1962. The article continues:

Even before its inspection was completed, the committee said through a spokesman that Houston "more than meets the agency's criteria."

Dr. Dryden has denied that there was any irregularity in the selection process, but he has conceded that political considerations may have been involved.

"There were no political deals involved—none at all," Dr. Dryden told an interviewer. "But we live in a real world; we are aware of political realities."

The article continues:

At any rate, Houston was indeed selected. Then came the actual land selection and acquisition.

Of the three Houston area sites examined, two—Ellington Air Force Base and San Jacinto Ordnance Depot—

And Members will remember how the San Jacinto Ordnance Depot was abandoned, although the military said it was the best ammunition outloading facility in the United States. The point is that tract, already owned by the Government, was not made the site of this expensive laboratory. Instead the space outfit went out and bought land, expensive land, according to this article.

Continuing to quote from this Washington Star article:

Ellington Air Force Base and San Jacinto Ordnance Depot—already were owned by the Government.

Both had been extensively developed and both were closer to Houston than was Clear Lake. The ordnance depot was quite close to deep water.

But Clear Lake was selected even though its choice involved purchase by the Government of nearly a square mile of land—at a price about 12 percent above the highest appraisal made of the site's fair market value. This land, incidentally, had to be drained before construction of the Space Lab could begin.

NASA has not let outsiders see the minutes of its site selection committee. So it is not known precisely what factors were considered in passing over San Jacinto and Ellington in favor of Clear Lake.

Continuing, the article says, and I am excerpting it, because of lack of time:

But within 6 months after the NASA announcement, land values in the area jumped to more than $5,000 an acre. Since then they have virtually doubled again. Potentially Humble's West Ranch holdings are easily worth a quarter-of-a-billion dollars, compared with the $9.2 million Humble paid for it in 1938.

What I am trying to say here and using this article to prove, is that these space installations are pretty plush deals, either for Houston or Boston.

Mr. TEAGUE of Texas. Mr. Chairman, will the gentleman yield?

Mr. GROSS. I yield to the gentleman.

Mr. TEAGUE of Texas. Would not the gentleman be fair to other Members of the House——

Mr. GROSS. Just a minute.

Mr. TEAGUE of Texas. I just want to point out one thing.

Mr. GROSS. I want to point out one thing to you. On my time, I am not going to be very amenable to any of this fair or unfair statement business.

Mr. TEAGUE of Texas. All right, then I will put it in a different way.

Mr. GROSS. All right.

Mr. TEAGUE of Texas. Would not the gentleman give the House better information, if he took our hearings of last

year when Members on the Republican side and the Democratic side heard every person involved in this? There is a complete hearing of last year on the Houston site. Would not the gentleman give us better information if he took that and quoted from that hearing instead of quoting some newspaper article that nobody knows who wrote it or why?

Mr. GROSS. I will give you the name of the man who wrote the article, and I have not seen any denial of it.

Mr. TEAGUE of Texas. But would it not be better information to give to the Members to get all the hearings and read just what was said?

Mr. GROSS. You do not deny the information that is contained in this article that is written by Mr. William Hines, the Washington Star science writer; do you?

Mr. TEAGUE of Texas. I would deny the implication of what is written in it—very much so. If the gentleman would read the hearings, he would read what was said before our committee last year. We had the people before our committee and that will tell you the story of what was done. The gentleman ought to take something more accurate than some newspaper story. I do deny the implication that there was skulduggery and crookedness in picking a site.

Mr. GROSS. If the gentleman does not believe this article, and if he takes issue with it, why did he not deny it long ago?

Mr. TEAGUE of Texas. I do deny it. We called people in. I was chairman of the subcommittee and other members of the committee were there and the witnesses before the committee were asked why the site of Houston was being picked.

Mr. GROSS. You do not deny this article in the Washington Star and you are not saying that you do.

Mr. Chairman, before I vote to launch the building of a $50 million electronics center for the Space Administration at Boston, Mass., and in the light of the information contained in this article, I want a full and complete bill of particulars. I want to know who and what is responsible for these huge spending programs. Too long has the Space Administration been treated as untouchable.

This business of probing into space and shooting for the moon started with an appropriation of $338 million in fiscal year 1959. Today, in this bill, the taxpayers are being asked to cough up $5,200 million, more than $2 billion of which is for this moon business. We are already borrowing billions of dollars each year to operate this Government. How much longer can the citizens of this country endure these burdens?

The CHAIRMAN. The time of the gentleman from Iowa has expired.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 5 minutes to the gentleman from Pennsylvania [Mr. WEAVER].

Mr. WEAVER. Mr. Chairman, I rise in support of the bill, H.R. 7500.

I want to add my words of compliment to our fine chairman of the committee, the distinguished gentleman from California [Mr. MILLER], and our subcommittee chairman, the distinguished gentleman from Minnesota [Mr. KARTH], who was so helpful to me in this first year on his committee.

I would like to emphasize the problem of national security and add a word of concern and caution although I speak in favor of this bill, H.R. 7500.

I would like to say a few words about my concern based on the Soviet space program.

Mr. Chairman, while the United States dramatically races to the moon, can it be the Russians have set their goal for space control? A clear definition of our mutual objectives is difficult. The United States has placed international prestige and a manned lunar landing as its primary goal. We have placed space control for national security or peaceful use secondary.

Let us take a look at the Soviet space program.

The U.S.S.R.'s space program and military missile program have been closely linked from their inception and it is probable that many of the scientists, engineers, and technicians work on both. According to Soviet Academician L. I. Sedov, a leading scientist and spokesman on aerospace matters:

> There is one large team in Russia that handles all space projects. The same keymen are in charge of guidance, tracking and other segments for each of the projects. It is a very large team and it can well take care of several projects in parallel. We have no distinction between military and civilian projects.

Below the level of central executive control and coordination a wide variety of organizational components probably handle assigned portions of the work. There are undoubtedly a number of research-design institutes working exclusively on space vehicle and guided missile design development and fabrication. In addition, supporting projects are carried on in classified project sections of research establishments of the Academies of Sciences and higher educational institutions. The Chief of Artillery Directorate of the Ministry of Defense probably establishes military specifications for advanced weapons systems and oversees the launching and testing of vehicles.

Within the Soviet Union the state committees coordination of scientific research has been made responsible for:

First. Determining the key areas for research and development work and defining the most important problems for immediate and for long-term research;

Second. Drafting an overall plan for scientific research and development;

Third. Supervising the implementation of key problem research regardless of the subordination of the institutions involved;

Fourth. Coordinating research and development activities in regard to major projects of all institutions or agencies engaged in scientific research;

Fifth. Introducing new technology throughout the country;

Sixth. Authorizing establishment of new scientific research institutions, regardless of subordination;

Seventh. Coordinating international relations of all governmental and scientific bodies in the scientific field;

Eighth. Supervising the dissemination of scientific and technical information;

Ninth. Advising the Council of Ministers on all problems and issues which in any way involve scientific research and development work.

The committee has a permanent staff of 400 to 500 people, a good many of whom came to it from the State Scientific-Technical Committee when it was abolished. A considerable amount of work, however, is done through ad hoc commissions and councils comprised of scientists, engineers, and technicians drawn from various sectors of the scientific community and loaned to the committee for a specific task. These commissions and councils study particular scientific and technical problems or fields of science and technology and make recommendations to the appropriate department in the staff of the State Committee for Coordination of Scientific Research.

Contradictions occur when these comments are compared with the results of a recent U.S. Senate study.

Concerning the military implications of space, the Soviets continue to insist, as the Senate Space Committee study points out, that their intentions are peaceful while those of the United States are militarily oriented. They have seized upon public pronouncements of American leaders, especially in the Air Force, relating to the military application of space to prove their contention.

Yet, in their own public pronouncements they have been careful to maintain the fiction of innocence concerning the military value of space exploration. Still, Soviet leaders continue to boldly assert the global capability and superiority of their rockets and have not hesitated to threaten their use against aggressors, clearly meaning the United States and its allies. As the Senate study points out, it can be safely assumed that the Soviets, who are extraordinarily realistic in ascertaining power realities in world affairs, fully appreciate and indeed take into consideration in their military strategy the military assets of space exploration.

The recent textbook on Soviet military doctrine prepared under the direction of Marshal V. D. Sokolovsky stressed the importance of meeting alleged American attempts to turn the cosmos into a theater of war. A review by Gen. P. Kurochkin appearing in the Soviet military newspaper Red Star said that one of the chapters in the book dealt with the military use of outer space for military purposes. According to Kurochkin, the authors introduced a number of facts showing that the United States was already engaged in this activity.

Kurochkin said:

> The Soviet people are engaged in the peaceful conquest of space. But it is perfectly clear that if the imperialists continue to conduct research for means of using the cosmic space for military goals, then the interests of guaranteeing the security of the Soviet state demand definite measures from our side.

It is possible that we have been distracted by the Soviets into this glamorous moon race while they are in the process of developing military control of space.

It is true that there is a certain fallout from technological advances that can be made from this expensive race to the moon. But could this money be more readily spent in U.S. national security inherent in earth's atmosphere? If we have separate objectives then perhaps we are at a disadvantage in this competitive role.

Lt. Gen. James G. Ferguson, Deputy Chief of Staff, Research and Technology, stated that "there can be little doubt that the Soviet Union has military applications in mind for the space region."

He quoted Marshal of the Soviet Union Sokolovsky as saying:

An important problem now is warfare with artificial earth satellites, which can be launched for diverse reasons, even as carriers of nuclear weapons. Soviet military strategy takes into account * * * the use of outer space and aerospace vehicles.

He also quoted Soviet Premier Khrushchev as saying after Titov's flight:

If you want to threaten us from a position of strength, we will show you our strength. You do not have 50- and 100-megaton bombs. We have stronger than 100 megaton. We placed Gagarin and Titov in space and we can replace them with other loads that can be directed to any place on earth.

The Russians, who have succeeded in an unmanned lunar landing in the past, only made one abortive publicized attempt recently and this failed. They, likewise, have given no evidence to us, as reported by Dr. Seamans, of their concern with developing the necessary boosters for such a moon launch. There have been restrictions placed for security reasons on information concerning the Russian space program. If they are concentrating on control of the world's atmosphere, that is within a hundred miles of earth, it is likely that our country's security is additionally threatened. Therefore, I feel that we should have an immediate total reevaluation of the comparative positions and objectives of the U.S. and U.S.S.R. program.

The Department of Defense, through its spokesman Dr. Kavanau, has stated:

It is important to understand that within DOD itself a space program does not exist as a separate entity. The basic objective in any functional area is to develop and exploit those capabilities which will provide the maximum military effectiveness for the foreseeable future.

Those space efforts which do not contribute directly to such objectives must compete for support with other military programs which do contribute to the national security. Certain space related projects have emerged as contributing to our military effectiveness in such areas as observation, communications, navigation, meteorology, and defense against hostile satellites. Such space systems now absorb about one-half the total annual fiscal outlay for space activities by the DOD.

He went on to say that:

Concurrently, we are faced with the difficult problem of defining accurately, in the light of unknown or possibly hostile space activities, the specific characteristics and performance parameters of future military systems of many kinds. Consequently, we must continue to develop an adequate competence in space technology—including vehicles, components, and subsystems likely to be important for future military application—even though the precise requirements for these are not yet completely clear.

Only in this way can we offset the handicap of development leadtimes which can be as great as 5 or 10 years—or longer—for a useful operational space system. These building blocks of technology, knowledge, and experience are being carefully assembled in order to provide the insurance we need against future military surprise in space. Our annual "premium," if you like, for this "insurance" now amounts to about 40 percent of our annual Department of Defense space effort, when measured in terms of dollar expenditures. The objective of these efforts is the advancement of space technology with likely military utility.

The total Department of Defense research and engineering effort in programs or projects classified as "space" or "space related" amounted to $1.62 billion in fiscal year 1963 and is expected to amount to $1.67 billion in fiscal year 1964. This is about 20 to 25 percent of the DOD's total research, development, test, and engineering program dollars.

The statement by Marshal S. S. Biryuzov, chief of Soviet strategic rocket forces that the U.S.S.R. has the capability of launching missiles from satellites brings up a compound question: "Does the United States have this capability and, if so why are we not actively developing such a system?"

We must face the reality that in this cold war fight with the Communists, the new battlefield is space. Within this potential battlefield we question whether our space program is truly alined to national security. We find that the U.S.S.R. had 375 hours of manned space flight in contrast with the United States 53½ hours. We see the strange contrast of the demand that we must have manned lunar landings, while at the same time we are told that we must have unmanned military systems in space.

We find there are no military space weapon systems projects authorized. This is because no mission requirement has been developed by the armed services which satisfies the Department of Defense. There is the constant fear of antagonizing Russians through our NASA program, but it seems evident that the recent Soviet shots are in the direction of developing manned space stations orbiting the earth. If this be indeed true, the Russians have about a 2-year jump on us. They have talked about satellite missile launchers as quoted previously by Biryuzov. Dr. Edward C. Walsh, the executive secretary of the National Association of Science and Space Committees, has said "we have taken a policy position against orbiting weapons of mass destruction in space unless forced to do so by the hostile action of others."

Meanwhile, our program for NASA proceeds and our information and findings are available for all to see and to follow. All of our shots are available for public scrutiny and yet we find no such reciprocity from the Russians. Can it be that all the work we are doing and the money we are spending is being made available in forms of research to the Communists, who in turn will use this upon us?

We receive no information from them except those facts which they think we already know or which they want us to know.

It is my feeling the major role of national security in the space program has been clouded in the hearings of the House Committee on Science and Astronautics. It has been difficult to define clearly the mutual roles of NASA and the Department of Defense in the development of our national security in its relationship to space. Our military posture and the Communist threat are a bipartisan matter.

Moneys allotted this year are set forth basically for nonmilitary and scientifically oriented programs of NASA. The question of how much national security is involved has never been specifically clarified.

The NASA space program calls for peaceful exploration of space led by the United States in cooperation with other nations and for the benefit of all nations. Nowhere have I found evidence of any emphasis on national security or a U.S. military mission in space. If we do have one, it is hidden behind security measures.

I feel that the military, through the Department of Defense, is being phased out of the space program. The agreements between the Department of Defense, NASA, and the Air Force no longer seem to be applied. NASA is a civilian, scientifically oriented program. The Department of Defense has left the emphasis there to the detriment of the Armed Services. Unless there is a reevaluation and a realinement of this policy it would appear the Armed Services connection to the space program will become less and possibly phased out. This, in my opinion, is not in the best interest of this country. Therefore, I ask for a reevaluation and realinement of the role of the Armed Services in the U.S. space program.

It is my opinion that our space goal be directed primarily toward national security, and secondarily to peaceful development of outer space. By so doing our military space program can then be given proper perspective, new emphasis and new direction. At the same time, the benefits of space technological advancement will accrue for peaceful development of science and industry.

I recognize that there is a technological war with communism, and feel that our space program must now be given proper perspective in relation to our military space mission.

I, therefore, recommend that this and future budgets be evaluated to place emphasis on national security. Thus, the military role in space through the Department of Defense can be properly and fully implemented and the fear of unilateral space disarmament allayed.

I feel that a clear definition of space age duties and roles of the Department of Defense and NASA is necessary to develop an effective program. The cold war we are engaged in with the Communists can only be properly waged if our space program progresses with national security as its prime goal.

Mr. Chairman, a manned orbital development system space station should be

a part of our fiscal year 1965 budget, but before we reach this budget let us take a good, cold look at the whole space program and let us see that the Department of Defense and NASA not only cooperate but have a coordinated program which places national security as its predominant goal.

Mr. FULTON of Pennsylvania. Mr. Chairman, I yield 5 minutes to the gentleman from Florida [Mr. GURNEY].

Mr. GURNEY. Mr. Chairman, I also rise as a member of the committee and of the Subcommittee on Manned Space Flight in support of H.R. 7500, with reservations to support some amendments which I understand are going to be offered later.

It has been my assignment as a member of the Manned Space Flight Subcommittee to explain about the Saturn boosters and the engine program of NASA. This hardware here on the table is the heart of the Apollo program.

The Saturn boosters are three in number, designated as S-1, S1B, and S5.

The engines in the Apollo program are five in number: H-1, and A-3, in Saturn-1; H-1, and J-2, in Saturn 1B; F-1, and J-2, in Saturn 5.

There is one other engine, the M-1. This engine is in the developmental stage only—an engine of the future. It is a very large, upper stage, liquid hydrogen and oxygen engine of high performance, planned for missions in space in the future—the 1970's. It has a thrust of 1½ million pounds.

Now let us talk a bit about the Saturn family of boosters.

Development of Saturn 1 began in 1958, to provide the Nation with a large thrust booster, capable of putting big weights in earth orbit. Using the state of art then existing, Saturn 1 first stage, clusters eight H-1 engines with liquid oxygen fuel, which total 1½ million pounds of thrust—payload—20,000 pounds in low earth orbit.

The upper stage is powered with eight A-3, hydrogen-oxygen engines, with total thrust of 90,000 pounds.

Saturn 1 is capable of putting 11 tons, 22,000 pounds, in low earth orbit.

When the decision was made in 1961 to go to the moon, it was natural to plan the mission, in part, around this booster, already in development.

Saturn 1 does not go to the moon. Its mission is to fly in 1965 the first Apollo command modules, for flight testing and spacecraft configurations.

Next comes Saturn 1-B. This launch vehicle uses the same first stage as Saturn 1. The upper stage is the same stage as the upper part of Saturn 5, the moon rocket. It is powered by one J-2 engine—hydrogen-oxygen with a thrust of 200,000 pounds.

The mission of Saturn 1-B will be to fly the complete Apollo spacecraft in low earth orbit in 1966—that is the command module, the service module, and the lunar excursion module. Saturn 1-B can put 16 tons, 32,000 pounds, in low earth orbit. Its mission will be to flight test the whole spacecraft and permit orbital maneuvers.

To use lay terms, the crews can get practice and proficiency by using this booster and thus prepare for the moon flight.

To do the moon trip required a vehicle of much greater ability than Saturn 1 or 1-B. Saturn 5 is the vehicle for this job. It consists of three stages, the first powered by five F-1 engines, total thrust of 7½ million pounds, a second stage of five J-2 engines, total thrust of 1 million pounds, and a third stage powered by one J-2 engine.

Saturn 5 is capable of orbiting 120 tons about the earth, or sending 45 tons on to the moon at escape velocity of 25,000 miles per hour.

I have intermingled the descriptions of the vehicles and the engines. It is hard to talk about one and not the other.

The three main engines of the Saturn vehicles are the H-1, a liquid oxygen and kerosene engine of 188,000 pounds of thrust, the J-2, an upper stage engine of liquid oxygen and hydrogen of 200,000-pound thrust, and the big daddy, the F-1, a liquid oxygen-kerosene engine of 1½-million-pound thrust.

Incidentally this last engine gobbles up 3 tons of fuel per second.

It is interesting to note that all three of these engines were conceived and development begun before it was decided to go to the moon. They are simply improvements upon engines which preceded them, actually the H-1 and F-1 engines have the same basic design as the early engines in the early Thor and Jupiter ballistic missiles.

This is a fact worthy of note. It points up the importance of continuing research and development in this field of space. This country and Russia may not be in a race to the moon, but we certainly are in a space race overall.

No particular mission, as for example, the moon journey, had been picked for these engines when their development began. Still it was of utmost importance to go ahead with large engines and boosters, as the people back in 1958 well knew.

Today, this Nation is working on the development of atomic power and other means of propelling rockets. I do not doubt that the ingenuity of mankind will break through one day, and discover the means of reliable and inexpensive travel in space.

To sum up the Saturn and engine program of NASA, it is quite obviously a building block program of improving vehicles and engines with a basic goal of the development of a reliable launch vehicle to boost large payloads in space, to catch up with and exceed the Russians in this capability.

I should like to point out two other items in closing, which I think are vitally necessary in this overall space program.

First, the problem of committee staffing. This space business has increased almost in geometric proportions. From a budget of a good deal less than $½ billion in 1958, the year of the birth of NASA, we are now considering a budget of $5.2 billion, the fourth largest in the Government. Yet our committee has a staff of only 10, one of the smallest of any committee in Congress. Although no department of Government is more technical or scientific in scope, our committee has only one staff member of technical background, a Corps of Engineers colonel who helped us in checking over construction figures. He did valuable work here and many millions were cut out of this budget because of his careful checking of plans and figures, and inspection of facilities in the field.

There is no possible way for Congressmen, laymen, and neophytes in this sophisticated world of space technology, to intelligently supervise the spending of these billions of the taxpayers money.

Now I think the committee worked long, hard and diligently on this budget. I think we have done a creditable job with the tools we had.

But there is no way to do the proper job without a far larger staff than at present, and one that includes a fair percentage of people who are experts in this business of space technology.

To do less, is to fail to do our job as Congressmen.

Congress is criticized for having old-fashioned ways. I am sure that much of this criticism is unwarranted or misconceived. But in the area, I am talking about, we should be justly criticized. For the people look to us to protect their tax dollar. They have no say over who works in NASA and what NASA does with their money. They do have a great deal to say about who represents them in Congress. And they certainly look to us to handle the purse strings carefully.

Now I say, if we in Congress let these agencies escape our watchful eye because they are experts and we are babes in the wood here in this space business, then we are not doing our job. For all we need to do is to hire some experts so we, too, can be experts through their eyes and ears. Only in this way can we responsibly perform our job on this space committee.

I sincerely hope we will have an adequate staff next year.

I speak of one other point. In a sense it is the most important in my mind. I regret that it will receive the lightest treatment. In the committee report, there are additional views which I signed. One aspect deals with the emphasis of our space program.

I am deeply troubled about this emphasis. So are others.

I support a strong space program for this Nation. I think it essential for our survival. If we had the time to review, it could be proven that we nearly lost our shirts in this missile and rocket race with Russia, because we had such a late start.

But the point now is where are we headed?

Sometimes, one can have superior skill and strength, but because of misdirection, not always do the strongest prevail, sometimes it is the cleverest that come out ahead.

Make no mistake, we are in a space race with Russia. She nearly beat us on the IBM program, but we woke up in time and the great technical skill and productive capacity of this country brought us there—by the skin of our

teeth. However, it cost this Nation untold wasted billions in crash programs.

We won that race.

In space, we are now racing with Russia in large launch vehicles and space technology in general.

We are off to the moon.

Russia? We do not know. No evidence is available to indicate she is moon bound.

Where else might she go?

In an area called inner space close to earth. In the area that her military people appear to be most interested in.

We are putting our major emphasis on outer space; we are putting far less emphasis on inner space.

There are many kinds of military possibilities in inner space reconnaissance and inspection, communications, weather detections, nuclear bombing from an orbiting vehicle, and most important, man in space, a manned space station, or a manned weapons system.

I charge the Members of the House of Representatives to alert themselves to the importance of military applications in space, to the end that we may properly orient the space programs of this country. National security is the first requisite of this Nation in space. We should make certain that our space dollars are being used to full advantage, to attain this goal.

I say national security first, today, and space tomorrow.

This space business is like an infant in swaddling clothes. It should do first things first, like any other endeavor.

It occurs to many people who follow this space business closely that a very important area is that of inner space, close to earth orbit. In this area lies the military potential. In this area we cannot afford to fall behind Russia.

Mr. Chairman, I simply want to say in closing that I certainly join with the new Members of Congress in expressing my gratitude to the chairmen of our committees, the gentleman from California [Mr. MILLER] and especially the chairman of the Subcommittee of Manned Space Flight, the gentleman from Texas [Mr. TEAGUE], who were so generous in allowing the freshmen members of the committee to enter into its discussions and its work.

Mr. MILLER of California. Mr. Chairman, I yield 5 minutes to the gentleman from Missouri [Mr. RANDALL].

Mr. RANDALL. Mr. Chairman, I rise in support of H.R. 7500. Before proceeding further, let me compliment our chairman and each of the subcommittee chairmen for a job well done. They have worked long and hard on this bill over a period covering the last 4 months. May I pay particular commendation to my subcommittee chairman, the gentleman from Minnesota [Mr. KARTH].

As a rebuttal to the criticism of the preceding speaker, the gentleman from Florida, about the size of our committee staff, I would answer him and say that there will be a larger staff before very long. It is a question of lack of space, presently, for a large staff. I suspect the gentleman who was critical knows that at the present time we have part of our committee staff in the George Washington Inn, part of them in the basement of the House Office Building and part of them going back and forth in between. A new House Office Building is to be completed shortly and then there will be ample housing for additional committee staff.

Mr. MILLER of California. Mr. Chairman, will the gentleman yield?

Mr. RANDALL. I yield to my chairman, the gentleman from California.

Mr. MILLER of California. Mr. Chairman, I feel this attack on our staff is a direct reflection on the chairman personally. I have always felt if we had the room, and every effort has been made to find room in the Capitol and in the facilities there—I even tried to get rented quarters on the outside—I would get the staff, but I was not going to furnish a staff where these people had to sit on one another's lap. We have people on the fifth floor of the old George Washington Inn where they have to walk up and down five flights of stairs.

Mr. GURNEY. Mr. Chairman, will the gentleman yield?

Mr. RANDALL. I decline to yield. I have only 5 minutes. We are near the end of the time provided under the rule. If my chairman will grant me additional time, I will be glad to yield.

Mr. MILLER of California. Mr. Chairman, I grant the gentleman 2 additional minutes.

Mr. RANDALL. Mr. Chairman, I yield to the gentleman from Florida.

Mr. GURNEY. Mr. Chairman, in the first place, I want to make it quite clear that my remarks were intended as no personal reflection on the chairman of our committee, for all my life I have dealt in facts, and they make sense to me. When a committee of Congress deals with the fourth largest budget in this Government, one composed of $5.74 billion, from which we have taken out something and which is now down to $5.2 billion, then I think that this fact should be pointed out because this Congress cannot do an adequate and proper job unless it has the proper staff to do it with.

I want to say another thing also. I have heard criticism again and again when I go back to my district about the fact that Congressmen are not properly supervising the agencies and the Federal Government. That is another reason why I bring this out now. If we are going to maintain our crucial role as a part of the U.S. Government in the Congress of the United States, then in order to do this job we have to have experts that are our eyes and ears so that we in turn can oversee the agencies that we are responsible for.

Mr. MILLER of California. Mr. Chairman, will the gentleman yield to me?

Mr. RANDALL. I yield to the gentleman from California.

Mr. MILLER of California. I would like to direct my further remarks to the gentleman from Florida. I agree with him, and I have talked about this long before the gentleman came to Congress. I know the value of staff. That is why we borrow staff from the Defense Department when we can get it on a reimbursable basis, and we pay their salaries. This is not a new thing. But on the other hand I do not agree with him and I cannot see where hiring staff, when you have no place to put them to work and when it is just impossible to get quarters for them, is going to solve this problem.

Mr. Chairman, I yield the gentleman another minute.

Mr. RANDALL. Now, Mr. Chairman, may we get back to an overall view of this authorization bill and see what has been done here in the matter of reductions by the committee. NASA sent up here a request for $5.7 billion. Now the gentleman, our colleague on the committee from Colorado [Mr. CHENOWETH], said that he had hoped that there would be a 10 percent overall cut and he would be satisfied if there was a 10-percent cut. I am sure the gentleman very well knows that in the Office of Space Sciences overseen by the subcommittee of which he was a member, there was a 12.7-percent reduction and in the Office of Advanced Research and Technology, also under our subcommittee there was a 9.1-percent reduction. The average of all subcommittees or the average for the full committee was 8.3 percent, which is very close to the 10 percent. The Subcommittee on Space Sciences is not considered a glamor committee as is the Subcommittee on Manned Space Flight, but it is the subcommittee that has to find some of the answers preliminary to manned space flight including the hazards of radiation in space to manned space flight. This must be done before manned space flight can be successfully and safely accomplished. Our subcommittee accomplished every cut that could possibly be made before having to send our astronauts out into space without knowing something about what conditions they will be subjected to and the hazards they may encounter. Those of you who may think there were no substantial reductions should listen to the following big cuts of money. We reduced the Ranger project not just a million dollars or $2 million, but $25 million, although some of the subcommittee dissented. We completely eliminated the Surveyor orbiter for a total of $28 million. We reduced Mariner by $15 million and reduced biosciences program, despite the protests of some of our subcommittee members by $14 million for a total of $134 million.

Mr. CHENOWETH. Mr. Chairman, will the gentleman yield?

Mr. RANDALL. I will yield to my friend for just a moment.

Mr. CHENOWETH. I think the gentleman will remember that I also mentioned if the other subcommittees had been as effective as we have been in our subcommittee, we would have achieved the 10-percent reduction. I again say I am greatly in favor of there being a 10-percent reduction.

Mr. RANDALL. I think anyone can observe we did a good job in our subcommittee in the matter of reduction in what could be considered as nonessential expenditures. Turning now to another matter, we heard a moment ago criticism of insufficient committee staff. I think this gives us an opportunity to bring up

something that may be considered in the form of an amendment after awhile here.

It was indicated on the floor here a few moments ago there would be an amendment offered to reduce the authorization for facilities, training and research grants. Let us look carefully to see if the gentleman from Indiana [Mr. ROUDEBUSH] is not going in the opposite direction from his colleague on the same side of the aisle, the gentleman from Florida. As I see it the gentleman from Florida was saying a moment ago that most of us are laymen and need help, that is, scientific help, which is provided by staff and suggests a larger staff. It is equally true the administrators of NASA also need a larger staff in the sense they need a greater pool of trained scientists. There is a severe strain on our pool of available manpower at the present time, and that is the reason why our subcommittee allowed the full amount of the request for laboratory facilities, training and research grants. The space program requires highly trained personnel, and if one of our fellow committee members believes the House Space Committee should have more staff he and all fellow members who believe similarly should oppose a proposal to reduce training and research grants because the product of this program means a larger and more adequate staffing of scientists and engineers for NASA.

All members should realize a scientist or engineer cannot be trained in a short time. This thing must be done in anticipation of need. You cannot turn on a tap, like a water faucet, and out comes trained scientists. There has to be a leadtime of 3 or 4 or 5 years. You may have heard of what is called the 10-square program. This meant 10 scientists being trained in 10 universities which is far too few a number. The urgent need of NASA for more technicians and engineers is the same sort of need you have heard mentioned just a few moments ago, when one of the committee was asking for additional staff beyond the present 10. Yet we are talking about training only 100 nationwide per year, and yet there has been an indication that there will be an amendment offered to reduce even this small number. I hope the membership of the House on both sides of the aisle will join to defeat such an amendment and sustain the amounts which have been allowed here by the committee, for facilities, training, and research grants.

Now Mr. Chairman, in the limited amount of time I may have left I would like to sound a warning to all of the membership to be upon the alert for other amendments that may be offered which may cripple the space program. It won't be long now until we will hear the bill read for amendments and go on the 5-minute rule. I don't know what some of those not in sympathy with the space program may propose, but I am certain that if there are additional reductions over and beyond the half-billion dollars which has already been cut by the House Space Committee it will injure and slow down this very important space program. To throw up a road block in the way of this program as some of those critics would do, is naive, shortsighted and quite unrealistic. I am sure I cannot and I do not think any member of the committee can say what the total cost will be, but even if the cost is large the question is not whether we can afford it, but instead we are at the point where we cannot afford not to proceed with space exploration. It is no longer a matter of choice and whether we like it or not we are engaged in a battle of survival with the Soviet Union. Both sides are striving for military and prestige advantages. The successful conquest of space can easily decide whether the cold war becomes a hot war. There will be great peril in a substantial reduction beyond that presently proposed by the Committee. The fact of the matter is we just cannot be second in space because if we concede preeminence to the Soviets in the race to the moon and the other planets, we are in fact conceding preeminence to the Soviets on this planet. If it happens that we should not be first in space, the time will very quickly come when we will not be first on earth. We cannot be shortsighted. We cannot suffer from myopia today while we consider the space authorization act for fiscal year 1964.

Mr. MILLER of California. Mr. Chairman, I yield 5 minutes to the gentleman from Louisiana [Mr. WAGGONNER].

Mr. WAGGONNER. Mr. Chairman, the years which stretch behind us in time are but the twilight of the new dawn. The time is now close at hand when young Americans and their counterparts, will stand upon this earth as one stands upon a footstool and reach their hands out among the stars, for we are living in a world of space. I use that description, not merely as a play on words. Rather, it is intended to catch some of the spirit of our times.

If we concede preeminence to the Soviet Union on the way to other planets, we will be conceding preeminence to the Soviet Union on this planet.

If we do not make it our objective to achieve mastery of outer space, we will not be first in inner space and the time will come when we will not be first on earth and then, finally, the problem will be survival under the worst of all conditions, for the world will someday be ruled from the skies above.

I support this legislation today and I support it because of its all-round value. No man can deny the military value of this program. National security is involved and this is of primary importance to me. All else is secondary. A race to the moon is of no consequence to me. This is true first in inner space and then in outer space. Cooperation between the civilian and the military is an absolute must and steps are being taken to insure this but must be emphasized to a greater degree than has thus far occurred. More cooperation in the use of available Government facilities must also be achieved if waste is to be eliminated in this program. Conflict of interest must not be permitted.

In presenting this legislation today, I shall discuss in some detail Project Gemini.

The next major step after Mercury in the U.S. manned space flight program is Project Gemini, named for the twin stars Caster and Pollux. This project's goals are:

First. To determine man's performance and behavior during prolonged orbital flights of as much as 2 weeks, including his ability as a pilot and controller of his craft.

Second. To develop and perfect techniques for orbital rendezvous and docking, the bringing together and coupling of craft in orbit.

Third. To carry out scientific investigations of space that require participation and supervision of men aboard a spacecraft.

Fourth. To demonstrate controlled entry into the atmosphere and landing at a selected site.

The Department of Defense is participating with NASA in Project Gemini. The Secretary of Defense and the NASA Administrator have agreed on joint arrangements for the planning of experiments, the conduct of flight tests, and the analysis and dissemination of results.

The two-man Gemini spacecraft externally resembles the Mercury spacecraft. It is 1½ feet wider than Mercury at the base and lengthened proportionately. It provides about 50 percent more cabin space than Mercury and weighs about 7,000 pounds. Two men will pilot the Gemini spacecraft.

In contrast to Mercury, many Gemini components will be outside the crew compartments and arranged in easily removable units, thereby facilitating checkout and maintenance.

Included in Gemini equipment are docking apparatus for coupling with another vehicle in space; a life support system for maintaining pressure, temperature, and atmospheric composition of the crew cabin; instruments to collect, transmit, and record data on conditions of the spacecraft and astronauts; guidance and controls systems operating in conjunction with a computer to aid in navigation, rendezvous with another craft, entering earth's atmosphere, and landing; radar to aid in rendezvous operations; and a landing and recovery system including a small parachute to stabilize the craft, the paraglider mechanism, landing gear, and recovery aids such as tracking beacons, flashing lights, and two-way voice radios.

Unlike the Mercury spacecraft, Gemini will have no escape tower. Instead, each astronaut will have an ejection seat, similar to that used in a fighter aircraft, for escape during launch or for emergencies in the recovery phase.

Rollout couches and hinged doors will facilitate pilot entry into and exit from the craft. Two windshields, one for each astronaut, supplant the single porthole of Mercury.

Gemini's resemblance to Mercury is partially obscured by the two-piece adapter section which is attached to the heat shield at Gemini's base. The adapter section is 7½ feet in diameter at the top, 7½ feet long, and 10 feet in diameter at its base. It weighs about 2,200 pounds. It is made up of the equipment and retrograde modules. As an aid in distinguishing the Gemini

parts, the crew section has been designated the reentry module.

The equipment module contains fuel, fuel cells, oxygen for breathing, and a propulsion system for orbital attitude control—orientation—and maneuvers. The retrograde module, sandwiched between the equipment and reentry modules, contains the braking rockets that decelerate Gemini and enable it to descend from orbit. It also contains a propulsion system to aid in orienting and maneuvering the spacecraft.

The astronauts jettison the equipment module during preparation for return to earth. They discard the retrograde module just before entry into the atmosphere.

Gemini will be the first spacecraft to utilize fuel cells for electrical power. Its two fuel cells will create electricity through a chemical reaction of hydrogen and oxygen. A byproduct of this reaction is a pint of drinking water per kilowatt-hour.

The fuel cells are located in the equipment module which is jettisoned when the spacecraft is readied for atmosphere entry. An array of silver zinc batteries located in the reentry module provides power after the equipment module is discarded.

Early Gemini flights will employ parachutes for landing. Eventually, the parachutes will be replaced by a 45-foot-wide wedge-shaped paraglider, based on a concept developed by Francis Rogallo, of NASA's Langley Research Center.

The paraglider will be part of the equipment of the reentry module, the only part of Gemini designed to return to earth. The device, deployed at about 40,000 feet, will enable the astronauts to maneuver the module to any desired landing point within a 20-mile radius. Moreover, the paraglider will permit the module to land like an airplane with the pilots sitting upright and looking forward.

When the paraglider is deployed, a spoon-shaped nose ski will automatically extend from the module. The crew will then lower two outrigger skids. The spacecraft will be designed to land with a forward speed of about 45 miles per hour.

For launching the Gemini spacecraft, NASA has chosen the Titan II booster, a U.S. Air Force vehicle. Titan II utilizes a type of liquid propellant which can be stored indefinitely in the fuel tanks. Thus, unlike other liquid-fuel boosters whose propellants must be held at cryogenic—intensely cold—temperatures, Titan II can be fueled in advance of a launch countdown and need not be drained of propellants if a launch is postponed. Flight tests of Titan II started March 16, 1962, and are continuing.

Titan II has a 430,000-pound thrust first stage and 100,000-pound thrust second stage. It is 90 feet high and 10 feet in diameter at the base. The Atlas employed to launch Mercury generates 367,000 pounds of thrust.

In the Gemini orbital rendezvous mission, an Atlas will first launch an Agena rocket, modified to link up with the Gemini spacecraft, into a near-circular orbit. Ground stations will track Agena and determine the best time to launch Gemini. Later a Titan II will propel Gemini into an elongated orbit with an altitude generally lower than that of Agena but with apogee—highest altitude—at the same altitude of the Agena orbit.

Because its altitude is lower, Gemini will be able to circle the earth more quickly than Agena and gradually overtake the rocket. When the two are most favorably located relative to each other, a Gemini rocket will be fired to increase Gemini's speed and to thrust the spacecraft into a circular orbit almost identical with that of Agena.

As soon as Gemini's radar acquires Agena, the so-called closing phase of rendezvous begins. Radar information is fed into Gemini's computer which tells the pilots which rockets to fire and when and how long they must operate them to keep the craft stabilized and gain on their target. When the two craft are about 20 miles apart, the astronauts are expected to sight Agena and supplement radar information with visual observation. A high-intensity flashing light on Agena will help the astronauts keep their target in sight. By the end of the closing phase, Gemini and Agena will be 10 to 100 feet apart and traveling in the same orbit.

The final phase of rendezvous is docking, the linkup of the two vehicles. In this phase, much of the sensing, computing, and decision requirements are within the capability of man. Using visual observation, the astronauts will carefully maneuver Gemini into contact with Agena. They are aided by an aiming bar on the Gemini spacecraft and a notch in the rocket's receiving cone.

As they near their target, the astronauts must reduce the relative velocities between the two craft to less than 1½ miles per hour, although both are whirling around the earth at about 18,000 miles per hour. Moreover, they must aline the conical nose of their craft with the docking socket of the Agena.

They will accomplish this by using the attitude controls to pitch Gemini—move its nose up or down—yaw the craft—turn its nose to the right or left—or roll it around the long axis, as conditions demand.

Docking will be accomplished when the cone-shaped nose of Gemini is gently nudged into the matching slot of the Agena. Coupling of the craft will be automatic, and the astronauts will be able to operate the joined vehicles as a single unit, adding the Agena's propulsion system to that of the Gemini spacecraft.

At the conclusion of their mission, the astronauts will detach Agena and jettison the equipment module. Then, they will turn the spacecraft around, fire the retrorockets to slow down and descend to earth, and discard the retrograde module. After reentry they will deploy a small parachute called a drogue to stabilize the spacecraft. At about 40,000 feet, they will unfurl the paraglider and pilot their spacecraft to an airplane-style landing at a selected ground location.

Before man can truly call himself the master of space, he must master orbital rendezvous. This technique may ultimately make it possible to assemble the huge space stations and the massive interplanetary craft required for manned expeditions to Venus, Mars, and perhaps as far as Pluto on the outer rim of the solar system, much sooner than if direct flight were necessary. Rendezvous may also enable astronauts of the future to refuel, repair, and resupply spacecraft, rescue other astronauts from disabled craft, and ferry crews between the earth and space stations or between space platforms and planets.

Moreover, mastery of orbital rendezvous is needed to fulfill the U.S. timetable for landing men on the moon and returning them safely to earth. By means of rendezvous in lunar orbits, the Saturn V, which is under development, can meet the lunar power requirements of the lunar mission. On the other hand, a direct earth-moon flight and a similarly direct return would require a launch vehicle about 50 percent larger and generating some 60 percent more thrust than Saturn V.

The first rendezvous of craft in space will represent a significant accomplishment in positioning and timing. To be practicable, however, rendezvous must be reduced to the routine and commonplace instead of the demanding and unique—and become a thoroughly reliable operation.

During advanced stages of the Gemini program, its pressure-suited crew may open the hatches and emerge from the spacecraft while in orbit. Moreover, they may push themselves from the craft, and appear to float in space as they speed around the earth at about 18,000 miles per hour. For this operation, they will be tethered to the craft to insure their return. Gemini will store sufficient oxygen to refill its cabin when the astronauts return.

This experiment will help pave the way for future operations in which man can make repairs, assemble orbiting stations, and perform other functions in space.

In fiscal year 1964, the Gemini spacecraft will be in the development and test phases. The need for the development of alternate subsystems will be more critical during these phases in order to prevent schedule slippages. Project Gemini costs for fiscal year 1964 will be:

Spacecraft	$196,200,000
Operations	14,600,000
Launch vehicles:	
Titan II	46,900,000
Atlas	15,900,000
Agena	32,000,000
Supporting development	700,000
Total research and development costs	306,300,300

Mr. PATTEN. Mr. Chairman, man will explore the moon and the other planets. He will add to his knowledge of science. He will observe weather patterns, the airglow, the aurora, the zodiacal light, the gegenschein, the sun's corona, and the astronomical objects. There will be many practical applications, both civilian, and military, of the space knowledge and technology. I have heard testimony that we will leave an

airfield and go to the moon cheaper than we now go to the west coast by jet plane.

One can foresee large space laboratories, huge antennas, and stations for interplanetary flight into deep space.

The United States has always had the courage and the intelligence to explore—to learn and to develop. I know the American people want us to go forward with this program because it is very likely that the country that dominates space will control the world.

Mr. JOELSON. Mr. Chairman, there seems to be a curious group in this country whom I can best describe as "cheerers." Whenever the United States makes an accomplishment in space, these cheerers hail the accomplishment the loudest. They say how proud they are to be Americans and they point to the great accomplishments that are possible under the democratic way of life.

These same cheerers, however, seem to be the ones who bewail the cost of space conquest the loudest. They remind me of the type of person who waits around for someone else to put a coin in the juke box so that they can enjoy the music. They are looking for a free ride. Unfortunately, there can be no free ride into space.

I have also detected another group who might be designated as what former President Roosevelt called "yes but-ers." These people say that space exploration is very fine, but they point to the many other unmet needs in the United States. The curious thing about these "yes buters" is that they are usually the very ones who decry and oppose expenditures for other unmet needs such as massive slum clearance and housing, urban renewal, Federal aid to education, and so forth.

If I thought for a moment that by foregoing the substantial space appropriation under consideration, we would adopt a schedule of priorities under which these other needs would be faced, I would be more than willing to do so. However, let us not kid ourselves. Those who oppose this appropriation have successfully destroyed necessary social and economic programs.

They do not believe either in first things first nor first things last. They believe in first things never.

Mr. BURKE. Mr. Chairman, the proposal by NASA to establish a centralized headquarters for electronics research is a most sound and practical decision, and experience proves that it is vitally important if we are to obtain maximum efficiency and control of this very important Federal program.

This is no time to be looking back, or questioning the methods to be employed, or to raise the idea that such a tremendous undertaking can be better conducted by some untried system of decentralization, when all of our experience proves over and over again that the key to this type of operation is centralization of administration and management, in the best possible place we can find.

Every department of the Federal Government no matter how large and well organized reports to one central control point. How much more important this system is when we are exploring new and wide fields of science, venturing out into unknown areas.

It is only commonsense that as discoveries large and small are made that the new knowledge be brought to a central point where proper administration and management can evaluate it and make the most efficient use of it. Because of the importance of the broad fields of electronics to the success of our space program, as one of the most important divisions of the major project, it must be concentrated in the best possible place for it, and NASA, after the most thorough study of every area in the country, selected the Boston area as the best. Why not give the NASA scientists and experts the approval their unbiased and thorough studies recommend? Certainly they want the best place they can find to do their work successfully, and are not affected by any narrow or selfish motives.

One of the most dangerous situations that can develop in our Federal research programs is a lack of competent, centralized, scientific supervision over the extremely large contracts that we place with either private companies or institutions. One of the great weaknesses in proper management of military research occurred when we set up our military research programs following World War II. Our qualified scientists left the military research programs and laboratories in large numbers, and for awhile we were in serious administrative trouble because we did not have enough or capable enough scientists to insist on proper performance of contracts, or who were recognized as qualified to compel full compliance.

Probably the strongest reason that can be advanced in justification of centralization of electronics research in our NASA program is that it establishes the strongest and best qualified organization to supervise performance of all contracts in the electronics field. In this great venture the interests of the United States comes first, and our most serious obligation is to provide proper administration and management in order that the tremendous amounts of money will be spent with the greatest possible efficiency and without waste. This is the principle objective NASA hopes to accomplish by establishing the Electronics Research Center in the Boston area.

Many misleading and inaccurate statements have been made in opposition to the establishment of the NASA Electronics Research Center in the Boston area, arising from superficial examinations and hasty conclusions. The space program which we so recently wholeheartedly approved and which carries with it the obligation to see it through to success, is one of the largest undertakings we have ever entered into. Our prestige and standing before the whole world is involved in our achieving complete success. We have selected the best possible scientific brains to lead the way; we have carefully recruited the best scientific administrators to manage the program; we have given them authority to go ahead, and subject to the normal precautions we always take to make them justify their programs, the directions they plan to follow, and the budgets they can expend, we become obsessed with interfering with technical problems.

The idea that the Boston Electronics Research Center will rob private companies of their leading scientists to staff the new Center is nonsense. At the present time there are more than 600 qualified scientists, engineers, and electronics technicians out of work and looking for work in the Boston area alone. It is true that when fully established several years from now possibly a dozen or 20 qualified top men may be offered jobs in the new Center, or maybe less, but there are many thousands of scientists, engineers, and technicians engaged in space contracts all over the country today and the number is constantly growing.

The complaint that centralization of electronics research will hurt or impede the success of the many thousands of companies now engaged in NASA contracts is equally ridiculous. The truth is just the opposite. NASA, by gathering together its electronics leadership in a central facility, is doing so not alone to achieve greater efficiency itself, but to help private companies in the completion of their contracts. The better NASA is administered and managed the better off the contractors will be.

NASA electronics research must be administered and managed from one central point which will be adequately staffed and have sufficient research capacity to do its job properly. This is all that NASA proposes and the President recommends. Compared with other NASA facilities already established in all sections of the country, the proposed Boston Center is very small.

The proposed operation is purely research, they will not manufacture anything there, its establishment will not change the system of ordering or contracting for materials in the slightest degree, the same suppliers and contractors all over the country will remain undisturbed in their opportunities to get business. As a matter of fact the operation of this centralized research operation is going to make it easier for the contractors everywhere to do business with the Federal Government, and the U.S. Government will be the greatest beneficiary.

In recruiting of personnel by NASA for the proposed Boston area Center, present plans indicate that new employment will be steady but rather slow, and at first chiefly involve transfer of present NASA employees.

Anyone who has examined NASA employment policies and procedures up to date will quickly discover that new employees and even top people have come from all over the country. This is a countrywide program, NASA recognizes it as such. This is the best evidence that NASA, in filling its supervisory positions, will do so on a countrywide selective plan, and that no preference will be given to local candidates. Wherever the selected site for the Center will be, citizens of Rhode Island, Connecticut, Maine, and New Hampshire whose services may be engaged can commute daily, while those from New York, New Jersey,

and Vermont can readily commute weekly.

Here are some of the advantages the Boston area offers which no doubt favorably influenced NASA's decision.

Over 12 percent of the Greater Boston work force is professionally or technically trained, outranking all other Atlantic coast or midwestern cities.

Engineering work force doubled in last 10 years, now total 25,000.

About 2,000 engineers graduate yearly from the 34 major colleges and universities in Greater Boston, more than 50 percent remain in area; more than 60 percent of them continue to advanced degrees and 12 percent becoming doctors.

No other area in the country offers such concentration of higher education with research operations and companies experienced in technical subcontract work.

Approximately 1,900 new engineers graduating from Boston schools each year, by 1965 expected to increase to 2,200 annually.

There are 189 major colleges and universities in the 6 New England States, all within a 200-mile arc of the center of Massachusetts, 100 alone in Massachusetts and 34 in Greater Boston—leading consulting engineering area in United States.

Close to supporting technical and engineering industries—military, basic, applied, development research facilities, and technical servicing organizations.

Mr. ROSTENKOWSKI. Mr. Chairman, I am pleased to rise in support of H.R. 7500, authorizing appropriations to the National Aeronautics and Space Administration for fiscal year 1964.

In the past few years we have overcome many obstacles in probing space. Through research and experiment we have advanced our technology in space flight to a point that we have cracked open the shell of ignorance to burst forth into a totally new and unknown area of mystery, which has perplexed man since the beginning of time. An area which may enable us to discover new minerals, new food substances, and new ideas in improving and extending life for man. The door has been opened and it is now our decision as to whether we should step through it and continue on the path which lays before us. I hope you will agree that our only choice is to move ahead.

The bill before us authorizes additional money for continuing our program of space exploration. It is a bill that has been thoroughly inspected by the Science and Astronautics Committee, and I believe they have reported a concise, precise measure which will produce a maximum effort at a minimum cost.

Not only has the committee objectively researched the suggested proposals for the advancement of our space program, but they have openly declared the necessity of coordination in our space programs. It is true that the basic objective of NASA's program is for peaceful exploration of space, and yet, the lessons gained should benefit the military aspects of space use. The advancements achieved by NASA are in the interest of the Nation's welfare as well as national security. By coordinating their findings with those of other Government agencies, who are engaged in specific programs for the common good of the United States, we will be in accord with the meaning of "united" in protecting our land.

Several theories have been advanced by both military and scientific personnel that space control is essential to national defense. As we are engaged in a struggle to maintain the position of the free world, and we have seen fit to pay the cost of an adequate defense, then space control is necessary to protect our investment to date. We must support the means to achieve this end. As a leading nation in scientific technology, we must assume the role as the free world's leader in conquering the problems of space flight in order to deter any hostile nation's desire for world domination. Superiority in space could very well checkmate world enslavement.

This bill before us is urgently needed and cannot be abandoned. Its approval should not be challenged but endorsed. I, therefore, urge this body to agree to its passage.

Mr. PHILBIN. Mr. Chairman, this bill authorizes some $5¼ billion for the space program of the National Aeronautics and Space Administration for fiscal year 1964.

Only real necessity, security, and compelling national interest would warrant and justify the approval of such a huge monetary outlay by the Congress at this time.

That these reasons exist is amply and abundantly demonstrated by the committee report and other available evidence. Desirable cuts in total dollar amounts have been made.

There are vital, military considerations and security questions involved in this legislation which I will not elaborate upon in my remarks and mention only to indicate that they are present and are such that they must be seriously considered by the House.

This bill is, however, primarily concerned with space science and space exploration which have deepest implications for our Nation, if we do not wish to fall behind in the forward march of knowledge and civilization—man's incessant search and need for expanding his horizons as far as his capacity and potentials permit in any given area.

While there are definite limits to our conquest of space because of its seemingly infinite nature, we must press ahead, as far and as fast as we reasonably can, to insure that our national security and interests are safeguarded and our progress and advancement in so many complex and obscure fields of knowledge so vital and desirable in so many respects will be assured.

The proper location of the proposed Electronics Space Center of this administration is a question that must be approached and determined on the merits of the case, on the basis of what is best for the overall space program and not upon narrow, sectional political factors.

Admittedly, such a center must be strategically placed where it is favored by those intellectual institutions, facilities, and personalities so essential and of imperative concern to the speedy, expeditious, expert completion of the extremely difficult, novel, and truly challenging tasks of the space program.

Unless the Center is close to adequate, highly trained, top-level scientific personnel, great universities and technical schools, endowed with the best available research and training facilities, in an atmosphere conducive to efficient performance of the work, accessible to appropriate industrial units where highly skilled specialists and suitable technological and technical equipment and machinery are available. If such a complex filling these basic requirements is not selected, the space program, through political jockeying and manipulation, could well fall flat on its face at the very outset. This must not happen.

The Government must not allow this dire possibility to come to pass. Since there is one area in the Nation that stands out above all others on the basis of merit and superlative qualifications, it is to be hoped that area may be chosen at an early date, and I urge this early action upon the Executive and the Congress. Any other decision could well be harmful to our chances to win the crucial battle for space that is now going on.

Mr. Chairman, I compliment the great chairman of the committee, my very dear friend and colleague, the gentleman from California [Mr. MILLER], and his able committee for their constructive work and I propose to support the pending bill.

Mr. HAGEN of California. Mr. Chairman, I would first like to quote from page 176 of the report accompanying H.R. 7500. The section entitled Flight Research Center reads as follows:

> Flight research support laboratory high temperature loads calibration facility. The request for these two facilities in the amounts of $2,924,000 and $1,157,000, respectively, were denied by the committee. Intensive questioning of witnesses and separate investigation failed to reveal any firm projects assigned to this Center involving high-speed research aircraft beyond the current X–15 project. The committee notes that the X–15 project is scheduled to be completed at the close of fiscal year 1965. In the absence of any firm programs to justify the continuance of this Center, the committee considers that no new construction should be initiated. Total reduction $4,081,000.
>
> The committee notes that no known future aircraft projects will specifically require the continued existence of the Flight Research Center beyond the date when the X–15 project will be completed. Therefore it is recommended that NASA give serious consideration to an orderly, planned program to close the Flight Research Center by the end of fiscal year 1965.
>
> The committee observes that more and more personnel at the Flight Research Center are being assigned to tasks related to missions which are the primary responsibility of other NASA centers. The committee does not desire to see the creation of isolated cadres of personnel at the Flight Research Center who are associated with projects of other NASA centers, simply to maintain a workload at the Flight Research Center.

Mr. Chairman, I believe the action of the committee deleting these two capital cost items to be in error and that the source of the error is the faulty conclusions evidenced in the foregoing quotation.

First they assume that these facilities would contribute nothing to the full development of the X–15 program. My reading of the testimony leads me to believe that they would make a great contribution to the X–15 program by greatly increasing the knowledge which can be gained from the remainder of the programed tests with that aircraft. It should be noted that the tests remaining in that program are substantial in both number and character.

Second, they must assume either that there will be no testing of the X–B70, the TFX, the V–STOL, the F–104, the X–20—Dynasoar—the supersonic transport, and other high performance aircraft and space vehicles identified in the hearings or that testing of all of them will occur at places other than the Edwards Flight Test Center. Neither of these assumptions are valid. All of these planes and vehicles will be tested because their development and production is programed. I am confident that they will be tested at Edwards. Heretofore Edwards has been the prime flight test facility in the United States and has been utilized by all of the services for testing both high and low performance aircraft. There is no reason to assume that this situation will change. Edwards possesses perfect flying weather and cloud conditions which cannot be duplicated elsewhere. The dry lake, which is supplemented by an extremely costly manmade airstrip in being is the largest usable landing area in the United States and possibly the world. The Government has a huge investment in flighttesting facilities which are duplicated nowhere else. It is a remarkable assumption to predict that the Government would attempt to duplicate them elsewhere.

The requested additional facilities are needed to fully utilize the state of the art of flight testing high performance aircraft and lift-type space vehicles. Edwards is their necessary situs because it is from Edwards that the test craft takeoff and it is to Edwards that they return and the maximum efficiency demands that the instrumentation involved be at the place of takeoff and return. In addition the pilots of such test vehicles make their home at Edwards and derive value from this situs of testing equipment connected with their flights.

The amounts of money for these additional facilities is patently small in comparison with the value of aircraft and other vehicles which will inevitably be tested at Edwards.

I am advised that these facilities will be used in the following programs: Supersonic transport—both the high-temperature facility and the Flight Support Laboratory; the variable sweep plane—both facilities; the V–Stol plane, the Flight Support Laboratory; lifting-body research, the Flight Support Laboratory; recoverable booster research—both facilities; hypersonic propulsion—both facilities; hypersonic aerodynamics—X–15, X–20 and HRAC—the high-temperature facility; hypersonic propulsion—both facilities; structures flight research—X–15, F–104, X–20, and HRAC—the high-temperature facility; flight display research—X–15, F–104, Jetstar—the Flight Support Laboratory; biotechnology—X–15, F–104, F–100C—the Flight Support Laboratory, control system research—the Flight Support Laboratory; and electronic system research—F–104—the Flight Support Laboratory.

I am not advised as to whether or not the committee was informed of these proposed uses of these facilities. I feel confident that they were not, otherwise the committee action would have included authorization for them. I am hopeful that the Senate will include both of them in its version of the NASA authorization bill and that the House conferees will agree with such decision.

Mr. O'NEILL. Mr. Chairman, I heartily agree with the gentleman from Massachusetts, former Speaker MARTIN, and I hope that the amendment offered by the gentleman from New York is defeated.

The amendment smacks of politics. Some time ago NASA announced that it was going to build its electronics laboratory in the Greater Boston area. During the development of nuclear power and guided missiles, Massachusetts had about 9 percent of the electronics business. There are 364 firms in the area. In fiscal year 1963 we did about 1 percent of the business connected with the NASA program. With 166 schools in New England, including the Massachusetts Institute of Technology, Harvard, Boston College, Boston University, Holy Cross, Worcester Tech, and Brandeis, to mention a few of the outstanding universities, the Members from Massachusetts and New England are agreeable to the bill as it is presently worded that NASA review all of the sites throughout the Nation that are interested in such an electronics laboratory. We are willing to abide by the decision of NASA for the reason that we are fully confident that we have the locale and technical know-how and the superior talents of the Nation and that NASA will make a final recommendation to the Science and Astronautics Committee to locate the laboratory in the Greater Boston area.

It is my hope that the present amendment which would delay the building of this laboratory for at least another year is defeated.

Mr. BELL. Mr. Chairman, this is the third year I appear before you to advocate passage of the annual National Aeronautics and Space Administration budget.

My assignment today in supporting H.R. 7500 is specific discussion of that aspect of the appropriation dealing with the Apollo manned space flight program.

Of the $5.2 billion recommended by your Committee on Science and Astronautics for NASA for fiscal 1964, $2.4 billion will be applied to the Apollo effort.

It was in the summer of 1961 that your Science and Astronautics Committee first recommended, and Congress approved, a budget for manned space flight.

That first allocation covering fiscal 1962 amounted to $487 million.

The following year approximately $1.1 billion was earmarked for Apollo by Congress.

Each year the budget has increased because each year we come closer to vitally important breakthroughs in our assault on the mysteries and challenges posed by the Apollo project.

We understood this would be the case when we initiated the program.

Today three barriers impede the performance of the United States in space. They apply equally to military and to scientific progress.

They limit hope for advanced American exploration in the farthermost reaches of the universe.

They restrict us in the 100 to 500 miles of so-called inner space where national security must be considered.

Barrier No. 1 is booster capability.

Barrier No. 2 is rendezvous capability.

Barrier No. 3 is precision-timing capability.

Mr. Chairman, impossible to ignore in our budgeting to overcome these barriers is an assessment of the relative success of the Soviet Union with the same problems.

Booster capability of the United States in manned flight, as demonstrated in Project Mercury, is 360,000 pounds.

Russia is presently presumed to be capable of 850,000 pounds of thrust.

Unclassified published studies suggest, however, that the Soviets may now be developing a new system of engines and engine clustering which would increase their booster capability by more than 50 percent.

Some American scientists believe that a new basic engine will be produced in Russia soon which could double the thrust of their present engine.

The response of our space technicians to this challenge is represented in engines designated Saturn 1, Saturn 1B, and Saturn V.

Each is part of the Apollo program.

Booster potential of these Saturn vehicles ranges from 1.5 to 7.5 million pounds of thrust.

Rendezvous capability and precision-timing capability must, of course, be equated with thrust.

But they also represent technical sophistication quite apart from thrust-power.

No American achievement in these two areas matches the Vostok flights of August 11 and 12, 1962, and June 14 and 16, 1963.

Project Apollo, for which rendezvous and precision-timing capacity are absolutely essential, is currently the best hope of our Nation in overcoming clearly demonstrated Russian superiority.

To the Aeronautics and Astronautics Coordinating Board of NASA and the Department of Defense, established in 1960 and actively functioning today, will be assigned many considerations involving application and development of Apollo research.

Manned and unmanned space stations, of interest to both science and the military, are examples of areas in which Apollo will be the trailblazer.

Even in the absence of international competition and political tension, however, Apollo would be needed to break down the three barriers which place intolerable limitations on every aspect of our potential in space.

It may be a disadvantage rather than an advantage that Apollo is best known as the project by which the United States seeks to accomplish the 768,000-mile lunar expedition within this decade.

In point of fact, it is estimated that between 50 and 60 percent of the proposed Apollo budget constitutes basic research and development on space flight.

This means that more than half of what is done in the name of Apollo can be applied to any space activity in which our Government might become engaged, now and later.

Mr. Chairman, valuable previous discussions concerning the feasibility and desirability of the Apollo program can be reviewed in the CONGRESSIONAL RECORD of April 28 and May 24, 1961; and May 23 and July 10 and 11, 1962.

Hearings of the Committee on Science and Astronautics especially useful in assessing the program can be found in reports dated May 12, 1961; May 15, 1962; and July 25, 1963.

No new technical information has been acquired since the Apollo budget authorizations for fiscal 1963 which now cast doubt on the feasibility of the program.

All development has proceeded as planned.

Arguments which originally justified Apollo appropriations and programing, and were considered acceptable by the Congress in 1961 and 1962, still apply.

To continue the Apollo program on its present schedule to July 1, 1964, we will commit ourselves to the expenditure of $2,475,900,000.

This total can be broken down in the following way:

First. For the spacecraft: Described on page 9 of your report, $911,400,000.

Second. For operations: Described on pages 9 and 16 of your report, $16 million.

Third. For procurement of launch vehicles: Described on pages 9 and 17 of your report. $135 million.

Fourth. For support development: Described on pages 9 and 18 of your report, $25 million.

Fifth. For development of launch vehicles: Described on page 22 of your report, $1,138,500,000.

Sixth. For proportional allocation of the costs of shared construction and facilities: Described on pages 127 through 160 of your report, an estimated $250 million.

Viewed solely from the standpoint of technology and methodology, these items have not, to my knowledge, come under question.

It is in the ever-changing area of public policy that Project Apollo and, indeed, the entire NASA budget, rightfully deserve close scrutiny by the Congress.

In this regard I call your attention to a supplementary opinion on page 201 of the report submitted by six distinguished members of our Science and Astronautics Committee.

In essence the supplement deals with the significant question of whether the United States is intelligently balancing Federal space expenditures between programs which contribute to national security and programs of pure scientific research.

The signers of this supplement, while not advocating rejection of the NASA budget this year, express in a single area a general concern which many of us feel.

There is clearly a need for more and better information about the annual $14 to $15 billion of Government research spending as it relates to scientific priorities, national goals, and the need for congressional and executive budgetary discipline.

Such concern is, however, not incompatible with support of the NASA budget today.

Mr. Chairman, the Committee on Science and Astronautics is not afflicted by either moon madness or space obsession.

It has been for many months involved with a businesslike consideration of the financial requirements of the National Aeronautics and Space Administration for fiscal 1964.

From the NASA budget proposal first submitted to us, $120 million was cut from Apollo research and development alone.

Beyond this, reductions of more than 8 percent of the total of the original request of the National Aeronautics and Space Administration were imposed by your committee.

Such a cutback is unprecedented in the experience of this agency.

We give you a hard budget but certainly not a crippling budget.

Mr. Chairman, on this basis I speak in behalf of the proposed allocations of both Apollo and NASA and urge passage of H.R. 7500 now before you.

Mr. RYAN of New York. Mr. Chairman, I want to join in paying tribute to the distinguished chairman of the Committee on Science and Astronautics, the gentleman from California [Mr. MILLER], and the chairman of the Subcommittee on Tracking and Data Acquisitions, the gentleman from West Virginia [Mr. HECHLER]. The entire membership of this committee, regardless of party affiliation, has worked diligently and conscientiously in reviewing the proposed NASA budget. The hearings conducted by the three subcommittees have been thorough and detailed. The unanimous action of the committee in reporting out the authorization bill, H.R. 7500, is the result in no insignificant way of the fairness and objectivity displayed by the three subcommittee chairmen, the gentleman from Texas [Mr. TEAGUE], the gentleman from Minnesota [Mr. KARTH], and the gentleman from West Virginia [Mr. HECHLER], throughout the long and exhaustive hearings.

The committee reduced the $5.7 billion budget request by some $474 million. Despite the anguished outcry of protest from NASA, the lunar landing should proceed on schedule provided NASA exercises greater prudence in its management.

Mr. Chairman, I believe our space program is vital to our national interest. Not only is national prestige involved, but there are clear benefits to our economy as we push forward the frontiers of scientific knowledge. The exploration of the moon, planets, and stars will unlock the secrets of the universe. The program already has yielded great gains both through scientific satellites and manned space flight.

The latest space accomplishment is the launching of the Syncom II on July 26, 1963. This space communication satellite has had phenomenal success. Now in orbit at 22,300 miles, it is operating as expected and is almost continuously available for retransmission purposes. The launching of Syncom II is one of the most difficult space accomplishments to date, if not the most difficult. NASA deserves praise for carrying out this major step toward U.S. preeminence in space.

Since Sputnik I the Nation has set succeedingly ambitious goals in space and has seen them accomplished. Each year Congress has increased the NASA appropriations as follows:

Fiscal year:	
1960	$523,575,000
1961	964,000,000
1962	1,825,250,000
1963	3,674,115,000

And now we are authorizing $5,238,119,400 for fiscal year 1964.

In any program of such scope and rapid growth there is a need for close scrutiny by the Congress of its management and administration to make sure that moneys appropriated are spent wisely and without waste.

There is also a need for an understanding of the economic effects and consequences of pursuing given policies. In our rush for the moon we should not ignore policy problems which are inherent in the peculiar relationship developing between Government and industry in this vastly expanding program.

I want to call the attention of the committee to the report accompanying H.R. 7500 and my separate views set forth on pages 196–198 on the question of communications satellites. Last year Congress created the Communications Satellite Corp., a private monopoly for profit, which it was said would lead to the expeditious development of a commercial communications satellite system. It was widely assumed by sponsors of the Communications Satellite Corp. bill that its enactment meant that private industry would do the job, including research and development. However, it is apparent from the record of this year's NASA authorization hearings that the private corporation is sitting back and waiting for the Government to finance research and development. It is further apparent that the National Aeronautics and Space Administration has made no effort to require or induce the corporation to undertake a fair share of the risk and expense.

Mr. Chairman, last year in opposing the creation of the private corporation I called it a giveaway of a vast taxpayers' investment and also warned that the private profitmaking corporation would be reluctant to invest in advanced research and development. The corporation's course so far bears out this prediction. I suggest that the Government is involved in a continuing giveaway for

the benefit of the stockholders of this private corporation. I believe that Congress should provide a formula for reimbursement to the Government by this corporation. I would hope that those Members who so often declare their concern for economy and budget cutting would exercise diligence in making this private monopoly pay, in part at least, for the Government financed research which will be of substantial benefit to its stockholders.

Mr. Chairman, I might point out that the $125,000 per year chairman of the Communications Satellite Corp. testified on April 30, 1963, that there were no plans to issue stock for 15 to 18 months, the second half of 1964. The corporation's reluctance to undertake any major research and development out of its own pocket is reflected in this lack of interest in an immediate issuance of stock because, without a stock issue, it will have no money for substantial research expenditures. The failure to plan for a stock issue was recently censured by the Federal Communications Commission which declared on July 24, 1963:

We are now disturbed by current indications that the corporation no longer has definite plans for an early issue of stock and the apparent lack of progress by the corporation in arranging for such an issue.

A similar concern has recently been expressed by many Representatives and Senators who originally voted for the Satellite Act.

I include at this point in the RECORD the July 24, 1963, letter from Federal Communications Commission Chairman, E. William Henry, to Mr. Leo D. Welch, chairman of the board, Communications Satellite Corp.:

FEDERAL COMMUNICATIONS COMMISSION,
Washington, D.C., July 24, 1963.

Re file No. ABM-2-CSA.

Mr. LEO D. WELCH,
Chairman of the Board, Communications Satellite Corp., Washington, D.C.

DEAR MR. WELCH: The Commission, by order adopted today, has granted the application of the Communications Satellite Corp. for authorization to borrow an additional $600,000 under the line-of-credit agreement previously authorized by the Commission on February 26, 1963.

The Commission, however, is concerned with the indefiniteness of the corporation's future plans as they relate to the matter of financing and particularly the initial offering of voting stock, contemplated by section 304(a) of the act. We, therefore, feel we should now express the basis for our concern in order that the corporation may be guided accordingly, and that subsequent applications for financial authorizations will not encounter difficulties that might otherwise arise in satisfying the applicable statutory standard of section 201(c)(8). This concern stems from the fact that after the Commission authorized the corporation, on February 26, 1963, to enter into the line-of-credit agreement and to borrow initially $500,000 thereunder, there was an apparent change in plans by the corporation with respect to the timing of the public offering of the initial issue. In applying for such authorization, and consistent with public expressions of corporate planning as of that time, it was represented to the Commission that all borrowings under the line-of-credit agreement would be repaid from the proceeds of the initial stock issue at a date prior to the maturity date of February 28, 1964. In fact, the terms and conditions of the agreement clearly indicate that the parties intended the loans to be repaid by the maturity date. Thus, the agreement indicated that notwithstanding the maturity date, the corporation agreed to repay the notes on the 10th day after receipt of the proceeds of the initial stock offering. The corporation further agreed, as an inducement to the banks to make the loans, it would use its best efforts to arrange for the initial issue.

Recognizing the practical problems involved in planning for and effectuating the initial stock offering, we considered that a period of approximately 1 year from the date of incorporation (February 1, 1963) was not an unreasonable time within which to take the various steps required for the resolution of these problems.

We are now disturbed by current indications that the corporation no longer has definite plans for an early issue of stock and the apparent lack of progress by the corporation in arranging for such an issue. Thus as you have advised us, until further research and development effort clarifies the type of communication satellite system that is likely to be employed as the initial system, and until a more definite picture emerges as to the character and scope of foreign participation in the system, no meaningful decision can be reached by the corporation with respect to the nature and extent of its capital requirements and its permanent financing.

The corporation, as it is now constituted, is in the custodianship of the incorporators appointed by the President pursuant to section 302 of the Satellite Act. By the terms of this provision, these incorporators are to serve as the initial board of directors until the first annual meeting of stockholders or until their successors are elected and qualified. It is further provided that:

"Such incorporators shall arrange for an initial stock offering and take whatever other actions are necessary to establish the corporation, including the filing of articles of incorporation as approved by the President."

Thus, the principal duty assigned by the act to the incorporators is "to establish the corporation." Articles of incorporation approved by the President have been filed. But until the initial stock offering has been arranged the corporation, although created, has not been established within the meaning and intent of the legislation. This does not mean that the incorporators have been foreclosed by the legislation from taking any actions other than those specifically enunciated in section 302. Clearly, as the "initial board of directors" they are not so limited. The important work involved in carrying out the policy and purposes of the act to establish a commercial satellite system "as expeditiously as possible" (sec. 102 (a)) cannot be delayed or deferred until establishment of the corporation has been completed by the initial stock offering contemplated by the act. Research and development must be continuously and aggressively pursued together with other measures that must be taken in order to advance this most critical national program.

However, the Commission deems it to be of equal urgency and importance that the incorporators fulfill their statutory responsibility of completing the establishment of the corporation by the initial stock offering at the earliest practicable date. Congress intended that the many vital technical and policy decisions involved in the development and establishment of an operational commercial communication satellite system would be made, not by the incorporators, but by the representatives of the owners of the corporation within the framework carefully structured by the Congress for this purpose. In providing for the establishment of a corporation for profit, the Congress at the same time provided for a balanced representative body of six directors to be elected by the stockowning public, six to be elected by the stockowning communications common carriers and three to be appointed by the President and confirmed by the Senate. We believe it is within this amalgam of variegated representation that Congress intended that the policies and objectives of the Communications Satellite Act would be given expression and that the important decisions shaping the destinies of the corporation would be made. Undue delay in the establishment of the corporation may force the present board of directors to engage in activities and to make decisions which should be left to the representatives of the owners of the corporation.

The Commission is fully cognizant of the problems and time involved in arranging for a stock offering. The corporation, in planning and executing this particular issue—the initial issue contemplated by the act—must take into account not only the normal problems associated with a new enterprise, but must also seek solutions to problems which are unique to this corporation. Capital requirements must be estimated under circumstances not normally present at this stage of a new enterprise.

Resolution of this problem, as well as that of providing other information required for a prospectus, must be correlated with the mandate of section 304(a) of the act that the stock "shall be sold * * * in a manner to encourage the widest distribution to the American public." Nevertheless, considering the design and intent of the legislation, it is our view that the principal focus of the incorporators should be upon discharging as soon as practicable their only remaining major duty of effectuating an initial stock issue. The need for prompt action in this respect is further emphasized by the time involved in the preparation and completion of the issue and the installation of a board of directors representing the owners of the business as contemplated by the act. Therefore, in passing upon future applications for authorization to borrow money, we do not believe that we will be able to make the required finding that the activities of the corporation "are consistent with carrying out the purposes and objectives" of the act unless the corporation shows that positive steps are being taken which will insure an issue of capital stock to the public and to authorized communications common carriers at the earliest practicable date. Future applications will be examined from this viewpoint.

The corporation is accordingly requested to file on or before September 30, 1963, a statement with the Commission setting forth fully the steps taken and to be taken by the corporation to insure the issue of the capital stock referred to in section 304(a) of the Communications Satellite Act of 1962 at the earliest practicable date.

The foregoing views were adopted by the Commission on July 24, 1963.

By direction of the Commission:

E. WILLIAM HENRY,
Chairman.

Mr. Chairman, for the benefit of my colleagues I include at this point in the RECORD the full text of my separate views which appear in the report:

SEPARATE VIEWS OF CONGRESSMAN WILLIAM F. RYAN

In 1962 Congress established the Communications Satellite Corp., a private profit-making corporation, to develop, own, and operate a communications satellite system because, for one reason, it was felt that "private enterprise would have more flexibility, greater speed, more initiative, and greater risk taking than the Government would." The record of this year's NASA authoriza-

tion hearings demonstrates that (1) the private corporation apparently intends to rely almost entirely on Government risk taking and financial support for research and development; and (2) the National Aeronautics and Space Administration has shown absolutely no concern with requiring or inducing the corporation to accept a fair share of the risk and expense.

The proposed NASA research and development budget for communications satellites for fiscal year 1964 was $51 million, $8 million more than was programed in fiscal year 1963. Although the Congress authorized $85.3 million for fiscal year 1963, $43.7 million was utilized. The committee reduced the fiscal year 1964 request to some $42 million. Despite persistent and repeated questioning, at no time did NASA spokesmen indicate that they had given any substantial thought to an appropriate allocation of work between NASA and the corporation. NASA spokesmen never explained what was not in the budget because of the esablishment of the satellite corporation, even though several subcommittee members repeatedly sought an answer. Although it was frequently said that NASA would concentrate on the synchronous system, NASA is continuing work on the medium altitude system, the type that the corporation seems to be favoring.

In short, NASA is proceeding with research and development which is essential to the establishment of an operational system and has given no substantial thought to what research and development projects should be carried on by the corporation. This is contrary to recent statements by those who sponsored and supported the bill. When the question was raised before the Senate Commerce Committee, Senator MIKE MONRONEY said:

"What I am wondering about is where and how will these costs, that will precede your final incorporation and stock issues, be handled so that the Government will not be continuing for 2 or 3 years to pay the major cost of your operation which would be in research and testing of communications satellites." [1]

And Senator JOHN PASTORE, who managed the bill on the Senate floor, declared:

"I think a serious question would be raised by those who sponsored the legislation—if the Government was going to do the research and render this whole mechanism operable and then have it turned over to the corporation. We felt the better job could be done by private industry; this included research." [2]

The Communications Satellite Corp. chairman, Leo D. Welch, and its president, Joseph Charyk, apparently have made no plans for the corporation to assume the responsibility for research and development. Mr. Welch seemed impatient at the thought that the committee should even be concerned about who was footing the bill for the success of an enterprise, the direct beneficiaries of which would be private stockholders. Indeed, on April 30, Mr. Welch testified that the corporation did not even plan to issue stock for 15 to 18 months, which will be the second half of 1964. During this period NASA will budget $42,175,000 for fiscal year 1964 in research and development. It is clear that for the next year and a half the corporation plans to finance almost none of the vast amount of research necessary to provide an operational system.

The corporation's strategy seems to be to let the Department of Defense do the work for an operational medium-altitude system and to let NASA do the research for a high-altitude system. The Department of Defense plans to have an operational medium-altitude system by the end of 1965. The Department of Defense budgeted $95 million in fiscal year 1963 for communications satellites and is asking $76 million for fiscal year 1964. Although it will differ from a commercial system with respect to capacity and expense, obviously it will solve many technical problems common to both.

Congress did not intend a continuing governmental subsidy to the corporation. The corporation should pay for work directly beneficial to it in the period prior to the organization of its own technical staff and should take over much of the research thereafter. About 90 percent of NASA's research in this area is contracted out to industry, and on these contracts NASA really serves as little more than a contracting officer or middleman. The corporation could easily replace NASA with respect to these contracts—it would have to do little more than pay the bills.

It is interesting to note that incorporator Bruce Sundlun testified before the Senate Space Committee that the corporation might do research and development for others at a profit. Thus, the corporation definitely has considered doing some research and development, if only on a profitmaking basis for others.

In these first years, however, until the corporation is established, there seems to be a legitimate role for NASA. But during this period NASA should be reimbursed for research and development. It should not be too difficult to work out a formula for reimbursement. Every research corporation in this country goes through the process in billing its clients.

The corporation argues, however, that it would be inequitable to make it pay for research because other private companies may benefit from NASA's research program. But this corporation, unlike other private companies, was created as a private monopoly for the specific purpose of turning over to private enterprise communications satellite development, operation, and ownership. In the aircraft and other industries, where the Government does finance a great deal of research, the companies are competitive and also invest a great deal of their own risk capital on research and development. National security and the air safety of human life are involved in the Government's aircraft research program, and these purposes have the highest priority.

As for the corporation's argument that NASA research will benefit manufacturers of satellite components, the corporation itself will be the ultimate beneficiary, for the component companies will be contracting with the corporation.

Last year Congress made a decision to rely on private enterprise to develop an operational communications satellite system. At that time I said that the action amounted to a giveaway of a vast taxpayers' investment. I also warned that the proposed private, profitmaking corporation would be reluctant to invest in advanced research and development.

It is clear from the testimony before the committee this year that NASA and the Communications Satellite Corp. expect the Government to finance future research and development in a continuing giveaway. Apparently the corporation intends to sit back and take advantage of NASA's program for the benefit of its private stockholders. Congress should face this issue squarely, accept the consequences of turning over communications satellites to the corporation, and require some form of reimbursement to the Government.

WILLIAM F. RYAN.

Mr. Chairman, there are a number of other areas in which NASA should exhibit greater concern for the public interest. I am pleased that in the report under committee views the conflict-of-interest question is raised. NASA should not put any contractor in a preferred position and should be constantly alert to the implications of concentrating know-how and technology in the hands of a few giant corporations.

We say in the report that NASA should provide a fair and equitable opportunity for all firms to compete for NASA contracts. Congress should insist on competitive bidding wherever possible. Let us look at how NASA has handled the letting of the contract for a communications system at complex 39, Merritt Island, Fla., from which Apollo will be launched to the moon.

NASA invited bids for this communication system. Some 48 contractors submitted bids which were to be opened on or about June 17. Before the bids were opened, NASA reversed itself and announced that 20 percent of this system would be awarded to A.T. & T. or its subsidiary and only 80 percent would be open for competitive bidding. Mr. Chairman, I hope that the committee will investigate the circumstances surrounding this decision and find out why NASA suddenly determined that the competitive bidding process should be abandoned in order to insure 20 percent of the system for a corporate giant.

Mr. Chairman, during the 1962 debate on the NASA authorization I questioned the tendency of NASA to contract with outside corporations for personnel services. Both the Bellcom and General Electric contracts in effect augment NASA personnel. Bellcom provides systems engineering advice and competence and General Electric provides integration, reliability and checkout services as well as hardware. I believe NASA should develop this competence in-house. In-house capability will result in greater economy and will avoid the undesirable consequence of concentrating vital know-how in a few companies.

NASA should come to Congress and ask for the necessary funds to hire sufficient scientists and engineers so that it will not have to go outside and set up private corporations in order to pay salaries comparable to industry.

Mr. Chairman, I would like to say another word about the GE contract. For some inexplicable reason, after testifying on April 9, 1963, that the GE contract would be approximately $100 million for fiscal year 1964 and that no other expense was anticipated, NASA on April 16, 1963, issued a press release announcing the extension of the GE contract to provide services at the Mississippi test facility for guard services, cafeteria services, parking lot service—hardly competences associated with the General Electric Co. And this was done without competitive bidding.

Mr. Chairman, I have related a number of examples of areas in which I believe close legislative oversight must be exercised. When any agency has $5.2 billion to spend, 90 percent to be contracted out to industry, the public interest must be protected with vigilance. I hope that NASA will not lose sight of

[1] "Communications Satellite Incorporators," hearing before the Committee on Commerce, U.S. Senate, 88th Cong., 1st sess., p. 68.

[2] Id. at p. 70.

the broad policy questions which transcend the specific techniques of space flight.

Mr. MILLER of California. Mr. Chairman, I have no further requests for time.

Mr. FULTON of Pennsylvania. I have no further requests for time, Mr. Chairman.

The CHAIRMAN. The Clerk will read the bill for amendment.

Mr. MILLER of California. Mr. Chairman, I ask unanimous consent that the bill be considered as read and be open to amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from California?

There was no objection.

The bill is as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be appropriated to the National Aeronautics and Space Administration the sum of $5,238,119,400, as follows:

(a) For "Research and development", $4,037,575,000.

(b) For "Construction of facilities", including land acquisitions, $692,359,400, as follows:

(1) Ames Research Center, Moffett Field, California, $11,044,000.

(2) Goddard Space Flight Center, Greenbelt, Maryland, $17,032,500.

(3) Jet Propulsion Laboratory, Pasadena, California, $2,998,200.

(4) Langley Research Center, Hampton, Virginia, $8,204,700.

(5) Launch Operations Center, Cape Canaveral, Florida, $279,677,000.

(6) Lewis Research Center, Cleveland and Sandusky, Ohio, $18,634,000.

(7) Manned Spacecraft Center, Houston, Texas, $35,102,000.

(8) Marshall Space Flight Center, Huntsville, Alabama, $28,980,000.

(9) Michoud Plant, New Orleans, Louisiana, $8,688,000.

(10) Mississippi Test Facility, Mississippi, $92,696,000.

(11) Nuclear Rocket Development Station, Nevada, $15,650,000.

(12) Various locations, $148,653,000.

(13) Facility planning and design not otherwise provided for, $25,000,000.

(c) For "Administrative operations", $508,185,000.

(d) Appropriations for "Research and development" may be used (1) for any items of a capital nature (other than acquisition of land) which may be required for the performance of research and development contracts and (2) for grants to nonprofit institutions of higher education, or to nonprofit organizations whose primary purpose is the conduct of scientific research, for purchase or construction of additional research facilities; and title to such facilities shall be vested in the United States unless the Administrator determines that the national program of aeronautical and space activities will best be served by vesting title in any such grantee institution or organization. Each such grant shall be made under such conditions as the Administrator shall determine to be required to insure that the United States will receive therefrom benefit adequate to justify the making of that grant. None of the funds appropriated for "Research and development" pursuant to this Act may be used for construction of any major facility, the estimated cost of which, including collateral equipment, exceeds $250,000, unless the Administrator or his designee has notified the Committee on Science and Astronautics of the House of Representatives and the Committee on Aeronautical and Space Sciences of the Senate of the nature, location, and estimated cost of such facility.

(e) When so specified in an appropriation Act, any amount appropriated for "Research and development" or for "Construction of facilities" may remain available without fiscal year limitation.

(f) Appropriations made pursuant to subsection 1(c) may be used, but not to exceed $35,000, for scientific consultations or extraordinary expenses upon the approval or authority of the Administrator and his determination shall be final and conclusive upon the accounting officers of the Government.

(g) No part of the funds appropriated pursuant to subsection 1(c) for maintenance, repairs, alterations, and minor construction shall be used for the construction of any new facility the estimated cost of which, including collateral equipment, exceeds $100,000.

(h) No part of the funds authorized by this section may be expended for the establishment of an Electronic Research Center unless the Administrator has transmitted to the Committee on Aeronautical and Space Sciences of the Senate and to the Committee on Science and Astronautics of the House of Representatives a detailed study of the geographic location of, the need for, and the nature of, the proposed Center, and (1) each such committee has transmitted to the Administrator written notice to the effect that such committee has no objection to the establishment of such Center, or (2) forty-five days have passed after the transmittal by the Administrator of such study to those committees.

(i) Until such time as the National Aeronautics and Space Administration shall establish uniform design criteria and construction standards for facilities for which appropriations are authorized pursuant to this Act, the National Aeronautics and Space Administration shall utilize for such facilities design criteria and construction standards established either by the General Services Administration, the United States Navy Bureau of Yards and Docks, or the United States Army Corps of Engineers.

SEC. 2. Authorization is hereby granted whereby any of the amounts prescribed in paragraphs (1), (2), (3), (4), (5), (6), (7), (8), (9), (10), (11), and (12), of subsection 1(b) may, in the discretion of the Administrator of the National Aeronautics and Space Administration, be varied upward 5 per centum to meet unusual cost variations, but the total cost of all work authorized under such paragraphs shall not exceed a total of $667,359,400.

SEC. 3. Not to exceed 2 per centum of the funds appropriated pursuant to subsection 1(a) hereof may be transferred to the "Construction of facilities" appropriation, and, when so transferred together with $30,000,000 of the funds appropriated pursuant to subsection 1(b) hereof (other than funds appropriated pursuant to paragraph (13) of such subsection) shall be available for expenditure to construct, expand, or modify laboratories and other installations at any location (including locations specified in subsection 1(b)), if (1) the Administrator determines such action to be necessary because of changes in the national program of aeronautical and space activities or new scientific or engineering developments, and (2) he determines that deferral of such action until the enactment of the next authorization Act would be inconsistent with the interest of the Nation in aeronautical and space activities. The funds so made available may be expended to acquire, construct, convert, rehabilitate, or install permanent or temporary public works, including land acquisition, site preparation, appurtenances, utilities, and equipment. No portion of such sums may be obligated for expenditure or expended to construct, expand, or modify laboratories and other installations until the Administrator or his designee has transmitted to the Committee on Science and Astronautics of the House of Representatives and to the Committee on Aeronautical and Space Sciences of the Senate a written report containing a full and complete statement concerning (1) the nature of such construction, expansion, or modification, (2) the cost thereof, including the cost of any real estate action pertaining thereto, and (3) the reason why such construction, expansion, or modification is necessary in the national interest.

SEC. 4. Notwithstanding any other provision of this Act—

(1) no amount appropriated pursuant to this Act may be used for any program or item deleted by the Congress from requests as originally made to either the House Committee on Science and Astronautics or the Senate Committee on Aeronautical and Space Sciences,

(2) no amount appropriated pursuant to this Act may be used for any program or item in excess of the amount actually authorized for that particular program or item when the authorization originally requested of either such committee for such program or item has been specifically reduced by the Congress, and

(3) no amount appropriated pursuant to this Act may be used for any program which has not been presented to or requested of either such committee,

until the Administrator or his designee has secured the prior approval of each such committee. If, within thirty days after the transmittal of a request for such approval by the Administrator or his designee, no objection has been raised by either committee, their approval shall be deemed to have been secured.

SEC. 5. The Administrator is hereby authorized to transfer, with the approval of the Bureau of the Budget, funds appropriated pursuant to this Act (other than funds appropriated pursuant to paragraph (13) of subsection 1(b)), to any other agency of the Government whenever the Administrator determines such transfer necessary for the efficient accomplishment of the objectives for which the funds have been appropriated. Not more than $20,000,000 of the funds authorized by this Act may be transferred by the Administrator under this section, and no transfer in excess of $250,000 shall be made under this section unless the Administrator has transmitted to the Committee on Aeronautical and Space Sciences of the Senate and to the Committee on Science and Astronautics of the House of Representatives a written statement concerning the amount and purpose of, and the reason for, such transfer, and (1) each such committee has transmitted to the Administrator written notice to the effect that such committee has no objection to that transfer, or (2) thirty days have passed after the transmittal by the Administrator of such statement to those committees.

SEC. 6. Section 307 of the National Aeronautics and Space Act of 1958 is amended by adding at the end thereof the following new subsection:

"(c) Notwithstanding any other provision of law, the authorization of any appropriation to the Administration shall expire (unless an earlier expiration is specifically provided) at the close of the third fiscal year following the fiscal year in which the authorization was enacted, to the extent that such appropriaton has not theretofore actually been made."

SEC. 7. This Act may be cited as the "National Aeronautics and Space Administration Authorization Act, 1964."

AMENDMENT OFFERED BY MR. PELLY

Mr. PELLY. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. PELLY: Page 2, line 25, strike out "$25,000,000" and insert "$15,000,000".

Mr. PELLY. Mr. Chairman, my amendment would reduce the amount in the bill for facility planning and design. The administration asked for $10 million. The subcommittee which considered this part of the bill did not change this figure, but when the matter came up in the full committee an additional amount of $15 million was added to the original $10 million, making a total of $25 million. In committee at the time, I offered a substitute motion to fix the amount at $15 million, but it did not carry.

I urge support of this amendment. Surely $15 million is adequate.

Mr. FULTON of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. PELLY. I yield to the gentleman.

Mr. FULTON of Pennsylvania. Mr. Chairman, this is the advance design amendment money; and your amendment would still give $5 million more than the President has requested, when he requested $10 million?

Mr. PELLY. That is correct.

Mr. FULTON of Pennsylvania. I would support the amendment and would request the chairman likewise to accept the amendment.

Mr. MILLER of California. Mr. Chairman, we accept the amendment.

Mr. PELLY. I thank the gentleman.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Washington [Mr. PELLY].

The amendment was agreed to.

AMENDMENT OFFERED BY MR. WEAVER

Mr. WEAVER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. WEAVER: Page 5, after line 11, insert the following new subsection:

"(j) Of the amount authorized to be appropriated pursuant to paragraph (13) of subsection (b), $2,000,000 shall be for use in the expansion of the existing life sciences research facilities at Wright-Patterson Field, Ohio, or Brooks Medical Center, Texas, as determined by the Administrator."

Page 1, line 5, strike out "$5,238,119,400" and insert "$5,235,479,400".

Page 1, line 8, strike out "$692,359,400" and insert "$689,719,400".

Page 2, line 2, strike out "$11,044,000" and insert "$6,404,000".

Page 2, line 23, strike out "$148,653,000" and insert "$150,653,000".

Mr. FULTON of Pennsylvania. Mr. Chairman, I make a point of order against the amendment.

The CHAIRMAN. The gentleman will state the point of order.

Mr. FULTON of Pennsylvania. Mr. Chairman, this amendment refers to installations and the construction of facilities which are not set out in the original bill, H.R. 7500. The paragraph (b) on page 1, line 7, which goes over on page 2 of the bill, you will note, has the list of facilities that are the subject of this bill. The Wright-Patterson Field is, first, not mentioned nor is the Brooks Air Force Base in Texas mentioned in this list of facilities.

Second, the amendment is defective in that these are both Department of Defense installations.

Third, the Administrator of the National Aeronautics and Space Administration by this amendment would have the decision as to where to put the $2 million between these two Department of Defense facilities. Obviously, it is not germane to the bill nor is it within the jurisdiction of the Science and Astronautics Committee for the legislation now before us to determine authorization for Department of Defense facilities such as these two facilities are.

Therefore, Mr. Chairman, I make the point of order against the amendment.

The CHAIRMAN. Does the gentleman from Pennsylvania [Mr. WEAVER] desire to be heard?

Mr. WEAVER. Yes, Mr. Chairman, I want to speak to the point of order.

Mr. Chairman, this is intended to maintain a life sciences research unit but to remove the funds allocated for the Ames Research Center and apply them at existing facilities either at Wright-Patterson Field or the Brooks Medical Center, Tex. That is the purpose of this amendment. It is related to the bill and, therefore, Mr. Chairman, I respectfully consider that it is germane to this bill.

Mr. FULTON of Pennsylvania. Mr. Chairman, may I be heard further? This would obviously be an authorization of $2 million beyond the budget and it would be an authorization for the use of two facilities which are Department of Defense facilities. One of the facilities is the Wright-Patterson Field which is under the jurisdiction of the Air Force at Dayton, Ohio, and the other is the Brooks Airfield located in Texas. Likewise, it puts within the discretion of the Administrator of NASA the determination as to how to allocate the $2 million between the two Department of Defense facilities which, in my opinion, is clearly beyond the jurisdiction either of the Science and Astronautics Committee dealing with the peacetime uses of space and clearly beyond the jurisdiction of the bill, because neither one of these facilities is mentioned under the facilities listed in H.R. 7500, under subparagraph (b).

The CHAIRMAN. The Chair asks the gentleman to repeat that statement. Are these facilities mentioned in H.R. 7500?

Mr. FULTON of Pennsylvania. They are not.

The CHAIRMAN. Are they under the jurisdiction of the Space Agency at the present time?

Mr. FULTON of Pennsylvania. They are not. They are under the jurisdiction of the armed services, and they are not peacetime agencies. So that under no circumstances could we in this bill legislate for the Committee on Armed Services nor for the armed services themselves.

Mr. Chairman, further, it is particularly bad because this amendment puts in the power of the Administrator of the National Aeronautics and Space Administration the authority to administer a defense agency, a defense installation, and likewise it gives him the power, does it not Mr. WEAVER, to determine as between these installations how much money shall be spent on either?

The CHAIRMAN. Will the gentleman from Pennsylvania indulge the Chair for just one further question? Are there any funds in H.R. 7500 for the Edwards Air Force Base in California?

Mr. FULTON of Pennsylvania. No, this does not have anything to do with the Edwards Air Force Base in California. But we do have an installation there for the X-15 and the X-17, which is under lease, just as Patrick Air Force Base is under lease with the National Aeronautics and Space Administration. The National Aeronautics and Space Administration does not run Patrick Air Force Base, nor does it run Edwards Air Force Base.

We likewise have, if I could say this, at Ames Laboratory, Moffett Field, a program which would be affected by taking away $2 million from the space agency. This program is operated by the space agency and it is not a military installation.

Mr. Chairman, it is that part that we are authorizing in this bill.

The CHAIRMAN. The Chair is prepared to rule. It is the opinion of the Chair that the amendment is germane. It deals with the same subject matter. Therefore, the Chair overrules the point of order.

The gentleman from Pennsylvania [Mr. WEAVER] is recognized for 5 minutes in support of his amendment.

Mr. WEAVER. Mr. Chairman, my amendment proposes that the sum of $4,640,000 be deleted and that $2 million be substituted for the Ames Research Center Life Sciences Laboratory.

At present, there is about $40 million invested in Air Force facilities at Wright-Patterson Field in Ohio and Brooks Medical Center in Texas involved in aeromedical space programs. It is felt that although there are special requirements of NASA in the field of outer space, it would be best to coordinate these facilities under the two existing facilities. In this way, it should be possible to cut down on personnel requirements, duplication of facilities, and to centralize aeromedical efforts. With the shortage of scientific personnel in this country, attracting scientists away from other necessary scientific programs into the Life Sciences Research Laboratory expansion proposed at Ames should be avoided.

The Air Force presently has in excess of 2,100 highly experienced people—279 scientists, 142 masters of science, 194 bachelors of science. There are engineers, technicians, and direct administrative support working in in-house bioastronautic agencies. These people work in highly specialized laboratories, located principally at Wright-Patterson Air Force Base and Brooks Air Force Base.

It is apparent that expansion of bioastronautics capabilities is a necessity for the success of the space program. This necessarily must meet NASA requirements and hence should be funded

by NASA. However, testimony before the committee revealed that the proposal for the Life Science Research Laboratory was made in spite of savings that might have been accomplished through use of DOD facilities.

A new joint NASA-DOD Committee recently established as a subpanel of the Supporting Space Research and Technology Panel of the Aeronautics and Astronautics Coordinating Board could serve in resolving many such problems arising from bioastronautics efforts of NASA and DOD. It is hoped that this committee will take into full recognition the great number of experienced personnel who are already doing work in this field through the DOD. The newly expanded facilities at Houston's Brooks Medical Center and Wright-Patterson Air Force Base, Ohio, could make a coordinated centralized site for such activities.

We cannot afford the luxury of the dispersion of our scientific talent throughout duplicating facilities.

Actual experience with the fiscal year 1963 funds for direct research and development in the human factor systems program is reported by NASA to be:

	Percent
NASA in-house R. & D.	19.38
Ames Research Center	12.25
All other centers	7.13
Transfer to DOD and AEC for R. & D.	21.00
Contracts with industry, hospitals and research organizations for R. & D.	59.62
Headquarters	21.00
Ames Research Center	22.75
All other centers	15.87
Total	100.00

It would seem to many of us that greater utilization of existing facilities in the DOD and in the scientific community are indicated rather than gradually increasing in-house NASA research programs.

To quote General Roadman before the committee:

Indeed we feel completely confident that the biomedical needs of the currently approved series of manned space flight projects can be met by the application of existing technology.

Admiral Haywood said:

I would say they [NASA] should not get into aerospace medicine. The Department of Defense will do any of the aerospace medicine they need. There are people involved, and we have the people and the facilities and documents involved and the work force at the present time in the Navy and Army. I think the decision, between the Secretary of Defense and doctors, would be the Department of Defense would do it, that NASA would not get in it.

COMMENTS ON GENERAL ROADMAN'S TESTIMONY BY MAJ. GEN. THEODORE C. BEDWELL

There is no question tht NASA is uniquely experienced in seleced areas associated with launch, flight, and recovery phases of Project Mercury. However, from General Roadman's testimony, the mistaken impression could be gained that all aerospace medicine competence for space flight is to be found within NASA. I don't believe General Roadman intended this implication. That he did not is borne out by his later elaboration. However, I would like to point out the following:

Continuing medical evaluation of the Mercury crewmen is performed at the SAM (School of Aviation Medicine) and Wilford Hall USAF Hospital. The medical monitors for the Project Mercury tracking stations were trained at the SAM. Over the entire period of the various Mercury flights the Air Force, Navy, and the Army supplied medical monitors for tracking stations throughout the world. The DOD supplied highly skilled medical support personnel for the Mercury recovery teams. After each Mercury flight, the astronaut was medically evaluated and debriefed by flight surgeons of the schools of aerospace medicine of the Air Force and Navy. In addition, the Air Force and Navy have been an important source of scientific manpower to staff key positions in the NASA organization as, for example, General Roadman and many others.

In any program as large and complex as that of aerospace medicine, in support of DOD activities and in NASA, it is obvious that it will be difficult, if not impossible, to get uniform and complete agreements on the solutions. It is however, the desire of the Aerospace Medical Division laboratories to cooperate fully and completely with NASA. It is believed, in order to take full advantage of the capabilities existing within our Division, that early coordination should be effected before a program is finalized. This would afford an opportunity to prevent any unwarranted duplication either in the in-house type of research or that done by contract. Since there is a relative shortage of qualified personnel to conduct research in the overall field of aerospace medicine, this would afford an opportunity to properly utilize the capabilities of existing laboratories and personnel.

It would seem to me that now is the time to consolidate facilities and develop a truly coordinated aerospace medical program between DOD and NASA.

We propose that the $2 million be used for expansion of facilities at Wright-Patterson Field or Brooks Medical Center in the life sciences field. This will provide a concentrated, coordinated aeromedical program with a minimum of dispersion and displacement of scientific personnel.

Mr. Chairman, I urge adoption of the amendment.

Mr. KARTH. Mr. Chairman, I rise in opposition to the pending amendment. I shall not take my full time because I know there are other Members who feel as strongly in opposition to this amendment as I do who will have many things to say about why the amendment should not be agreed to.

Let me say first of all, Mr. Chairman, the subcommittee dealt with NASA rather harshly in this whole life sciences area. As soon as the subcommittee was aware of the fact that the Air Force, the Navy, and NASA, all three, were doing some work in this area, we took a good hard look at it and took testimony from all three agencies of the Government.

We found during the hearings that while some of the work was being duplicated perhaps it was in areas where duplication is warranted but in other areas where NASA had work to be done and did not have the facilities to do it, that they actually contracted with the Air Force to do the work. They submitted a list of some 28 or 30 different areas where NASA did not have the capability to do the research work, and asked for assistance from the Air Force. If I recall correctly, the Air Force responded that they could assist in some 13 areas. So a contract was made between the two agencies of Government turning this work over to the Air Force.

I would merely conclude, Mr. Chairman, by saying we dealt very harshly with NASA in putting the lid on, further expansion of the NASA agency in this particular life science area.

I would conclude that irrespective and because they do have a very unique need for life science research in the field of outer space, they certainly should have a place for the people to do the research work in. For that reason we authorized the $5 million laboratory at Ames Field. I certainly hope that this amendment will be defeated.

I may say, Mr. Chairman, in conclusion, while a good deal of this research work is being done and while NASA has the ability and competence in that field to do the research work, they have no tools with which to do the work. This $5 million item that is now being asked to be stricken from the bill is merely for tools to do the work that needs to be done. I do not think under any stretch of the imagination should we deny this agency of our Government the facilities to do the necessary research in life sciences.

Mr. DADDARIO. Mr. Chairman, I rise in opposition to the pending amendment.

Mr. Chairman, I recognize that the gentleman from Pennsylvania is trying to be constructive in an attempt to further bind together the scientific and medical resources of the Government so that we can have a better life science program in NASA. I would like to call the attention of the committee to the fact that this has already been done. If you will turn to three sections of the committee report, the "Aerospace Medicine" section at page 170, shows how the committee, in order to force coordination between NASA and the Department of Defense, has already eliminated $5 million in facilities alone and there is a commensurate and proportionate reduction in personnel.

Under biosciences, and if you will turn to page 173, you will note that there has been a reduction of from $35 million to $21 million in this part of the program. Under the human factors system section, at page 174 which is the third section through which NASA operates its life sciences program, there has been a further reduction of about $5 million. It is well recognized that the School of Aviation Medicine at Brooks Air Force Base has the foremost life sciences capability in the biosciences field. It is a facility which should be used and admittedly can be used better. Our committe has often brought NASA and the Department of Defense before it so that there could be a more effective program in the medicine area. It is our belief that we have taken the necessary steps already and this additional cut, as reflected in the offered amendment, will be a crippling and harmful one. It should be defeated and we should allow

the Space Committee to continue its surveillance which has already shown itself to be so constructive in binding together these resources in the most efficient manner.

Mr. STAEBLER. Mr. Chairman, I rise in opposition to the amendment. I have enjoyed serving on the same committee as the author of this amendment, the gentleman from Pennsylvania. We have talked about this subject many times. As the chairman of our subcommittee, the gentleman from Minnesota [Mr. KARTH], has said, this matter has already been handled. The question of possible duplication has been raised with the Department of Defense, with NASA, and machinery has been set in motion to take care of any possible duplication of effort.

The author of the amendment quoted Mr. Brown, Harold Brown, of the Department of Defense. Harold Brown is one of the signatories to an agreement dated June 24 with NASA and with the Department of Defense in which a Life Sciences Subpanel Coordinating Committee is established. That committee has already begun meeting. I read one of the responsibilities of that committee which is described as follows:

Periodically to review NASA, Department of Defense, and, wherever applicable, other national industry and university life sciences research facilities and requirements on a regular basis in order to provide up-to-date information for planning and budgeting purposes as well as appropriate coordination.

I think in the light of the fact that we have already established a coordinating agency for this purpose, the gentleman from Pennsylvania is beating a dead dog and I suggest that the amendment be defeated.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Pennsylvania [Mr. WEAVER].

The question was taken; and on a division (demanded by Mr. WEAVER) there were—ayes 63, noes 67.

Mr. WEAVER. Mr. Chairman, I demand tellers.

Tellers were ordered, and the Chairman appointed as tellers Mr. WEAVER and Mr. KARTH.

The Committee again divided, and the tellers reported that there were—ayes 102, noes 107.

So the amendment was rejected.

AMENDMENT OFFERED BY MR. ROUDEBUSH

Mr. ROUDEBUSH. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. ROUDEBUSH, of Indiana: Page 1, line 5, strike out "$5,238,119,400" and insert "$5,213,719,000."

Page 1, line 6, strike out "$4,037,575,000" and insert "$4,013,175,000."

Page 3, line 17, after the period, insert the following: "Of the funds appropriated under subsection (a) of this section, the amount authorized for facilities, training and research grants shall not exceed $30,600,000."

Mr. ROUDEBUSH. Mr. Chairman, the purpose of this amendment I think is quite clear. However, I would like to explain just briefly what it proposes to do.

The bill authorizes the amount of $55 million for fiscal year 1964 for "Facility, training, and research grants." This is actually an increase of about $25 million over fiscal 1963 and is more than four times the amount allowed for fiscal 1962, since at that time the authorization was $12 million.

The purpose of these facility, training, and research grants is to help universities in their scientific research and college graduate students throughout the Nation in the fields of science, and especially those sciences peculiar to our space program.

If this money is granted by the Congress, it would result in the number of students enrolled in this program being increased from 900 in September of 1963 to an anticipated level of 1,500 students in 1964.

And then it is the plan of NASA—according to testimony in committee—to continue increasing the number to an anticipated level of 4,000 total student enrollees.

I think we are all aware of the financial participation by the Federal Government in the field of education. I would like to just single out one agency in addition to NASA as an example of this point.

The National Science Foundation alone spent about a quarter of a billion dollars in fiscal year 1962, and in 1963 this was increased to $322 million. And it is my understanding that they are asking $589 million for fiscal 1964.

I think we in the Congress are faced with the dilemma of having more than 40 separate and distinct Government agencies having programs with subsidies for education, without any effective means of coordinating these programs.

The purpose of my amendment is not to cut this program, but rather to stabilize it. My amendment gives NASA exactly the same amount of money for fiscal year 1964 which it had in fiscal 1963.

Therefore, to repeat and make it crystal clear, this is not a reduction of the some $25 million but rather the allowance of the same amount the program had last year.

To give you an example of the size and extent of this program, if we permit NASA to reach its estimated goal of 4,000 graduate students, it would represent about 13 percent of the current number of NASA employees, and would mean that for about every nine employees in NASA there would be one college student supported with Government funds.

In closing, let me make it perfectly clear that I fully appreciate the value of research in our country, and I know that the proponents of this legislation will tell you of the tremendous drain NASA has been on scientific personnel from private industry. I believe this problem is greatly overemphasized.

May I tell you that I have carefully studied the subcommittee hearings concerning these funds, and I simply don't think that expansion of the program is justified.

I was most pleased to note that several scientific publications in their recent issues have agreed with my stand that the size of this training program and facility grants is getting completely out of hand.

I ask that this amendment be adopted and that we save about $25 million for the taxpayers of the United States. I assure you that this will not in any way affect our space program or the announced efforts of our Nation concerning our space goals.

Mr. HALLECK. Mr. Chairman, will the gentleman yield?

Mr. ROUDEBUSH. I am glad to yield to the gentleman.

Mr. HALLECK. As the gentleman knows, he and I, together with others, have discussed this amendment. I do want to say I think the amendment is very much in order and it should be adopted. I think it will carry on the programs that the gentleman has pointed out with all necessary speed and diligence, and it may very well avoid some waste and, certainly, a lot of duplication that otherwise might occur.

Mr. ROUDEBUSH. I thank the gentleman for his contribution.

Mr. PELLY. Mr. Chairman, will the gentleman yield?

Mr. ROUDEBUSH. I yield to the gentleman.

Mr. PELLY. The gentleman refers to 42 Government departments and agencies that have various educational programs. I am informed that the total cost of these programs is in excess of $2 billion. I would like to point out that our colleague, the gentlewoman from Oregon [Mrs. GREEN] headed a committee which has made a study of the interlapping and overlapping of these various educational programs. The recommendation that has been made in that connection is the creation within the executive branch of an interagency council on education to coordinate the educational activities of all Federal agencies.

I shall support the gentleman on his amendment.

Mr. KARTH. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, if there are further economies to be effected in this particular bill, I suggest that they not be done in the section suggested by the gentleman from Indiana [Mr. ROUDEBUSH].

In the first place, Mr. Chairman, members of the Committee must realize that the program we are talking about deals only with predoctoral grants. There are no other educational grants involved in the NASA training program. It is only predoctoral, 3-year predoctoral, training grants in the scientific disciplines.

Mr. Chairman, the gentleman from Indiana [Mr. ROUDEBUSH] says he does not want to cut this program; he does not want to cripple it; he merely wants to stabilize it. Let me tell you why his amendment cannot possibly do it. In the first instance this program was developed several years ago by NASA and it has already been adopted or at least the philosophy or the theory has been adopted by the House to the effect that by school year 1967–68 we should be graduating approximately 1,000 doctoral students in the scientific disciplines every year.

Yes, Mr. Chairman, it is true that by the 1967–68 school year we will have

4,000 trainees taking their predoctoral courses, but we will never graduate more than 1,000 per year.

Mr. Chairman, the cut which is proposed by this amendment is $25 million. Let me just call to the attention of the members of the Committee the fact that insofar as training grants are concerned for fiscal year 1964 the total request is $25 million. Inasmuch as the gentleman who offers the amendment is only concerned with these grants, the individual predoctoral grants, it would mean that all of the predoctoral grant money is taken from the fiscal year 1964 budget. If this is not the intention, then let me call to the attention of the members of the Committee, Mr. Chairman, that what the gentleman is doing is cutting not only the predoctoral grant section but he is also cutting the universities facilities section. This I say would be a real tragedy. Obviously, the universities today do not have the kind of wherewithal, the financial resources, to develop the new capabilities, buy the new machinery and purchase the new facilities necessary to cope with the racing technologies of the sixties.

But it is extremely important, Mr. Chairman, that we continue to educate. The only way we can educate in the new scientific disciplines is to, No. 1, have the proper facilities at the universities. I might say, Mr. Chairman, that insofar as the total U.S. Government support of all graduate students is concerned—that is, student support, education, new facilities, and so on for the fiscal year 1964—it will amount to about $580 million and in 1970 will amount to about $700 million. This is only about 3 percent of the Federal Government's expenditures in research, development, test, and evaluation.

Mr. Chairman, I really do not think it is too much to ask that this Government invest 3 percent in brainpower to do all of the research, all of the development, all of the tests and all of the evaluation in the various fields of research in which today we are making space history.

In addition to that the President's Scientific Advisory Board and the Bureau of the Budget have very well evaluated whatever duplication might exist, and are apparently satisfied with the results.

Certainly, Mr. Chairman, with the racing new technology of the sixties and seventies, it is very important that we train people in the new disciplines. It is well understood that the Soviet Union is graduating about three times as many engineers today as the United States is graduating.

I think it would indeed be one of the very falsest of economies if we cut in this particular area.

Mr. RANDALL. Mr. Chairman, I ask unanimous consent to extend my remarks at this point in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from Missouri?

There was no objection.

Mr. RANDALL. Mr. Chairman, I rise in opposition to the amendment of the gentleman from Indiana [Mr. ROUDEBUSH]. His complaint seems to be that the total of $55 million for the construction of laboratory facilities and the training of scientists, technicians and engineers in our universities and the research grants to our universities is too large an amount. He would propose to return the funding to the level of 1963, or from $55 million to $35 million. Before the close of this debate I think we should analyze some of the items in this authorization because the subcommittee spent a lot of time and held extensive hearings before it recommended the full $55 million.

The fact of the matter is you cannot train these predoctoral scientists very well unless you have adequate facilities, and this means laboratory facilities and equipment which in turn must be housed. Fiscal year 1963 had money for the construction of only 222,000 square feet in seven universities. Our fiscal year 1964 authorization proposed only 400,000 square feet at 11 universities, nationwide. This is a modest program. It is not a big program; it is not beyond what can reasonably be expected to provide the needed facilities.

Now let us look at the training grants. The program provides for only a limited supply of highly trained scientists and engineers. This training program provides a 3-year training opportunity to graduate students offering Ph. D.'s in space-related areas.

These trainees will—after their training—become high caliber scientists and engineers. These stipends are on a competitive level with other sources including other Federal agencies. They will not draw students away from other departments in these institutions of learning. It is hoped 1,250 students can be added in the fall of 1964 and another 1,300 in the fall of 1965. As has been mentioned here before, lead time is important and the goal of graduating 1,000 students a year will not be reached until the spring of 1967. If the proposed amendment is adopted here today, it will seriously damage the projected program which calls for a stabilized figure, of the graduating of 1,000 students per year. Every phase and feature of this program is reasonable. The stipend is $2,400 for a full year of graduate study.

Now, just a word about the proposed research grants. This is a more flexible program, than that where NASA contracts with industry for its research requirements. It is a plan whereby there is a consolidation of related research projects within a university and a multidisciplinary approach. This means that where a university has received a research grant and a project is outlined, then instead of following the traditional approach of dealing with several departments in several universities, a sort of package approach is followed.

This means that full efforts of a group will be focused on one objective and the group may include perhaps biologists, geologists, physicists, chemists, electronics specialists, meteorologists, and engineers who will work together as a closely knit group with one object in mind. I suppose this sort of approach might even be comparable to a miniature Manhattan project or a small scale Polaris project in which all eyes are focused upon obtaining fast results and reaching the objective as quickly as possible through the elimination of any possible time lags or administrative redtape by a multidisciplinary approach. This sort of an approach has the advantage that if there is a gap in research it may now receive quick attention and the gap will be filled in without any possible artificial distortion by traditional organization.

Mr. Chairman, there may be those who would make light and poke fun at some of these research activities as being offbeat, simply because some of this research has to do with investigation of such things as frog's eyes, flys, bats, dolphins, homing pigeons, and beetles, but all of this is not funny or as offbeat as it may seem upon first consideration. The frog's selective eye can see small objects as possible food and large objects as possible enemies. RCA's applied research laboratories thought enough of such an investigation that $200,000 has been spent to create a 500-pound electronic replica of a frog's eye. Many corporations and research institutions are trying to find out how nature does better in many fields than man's devices.

Someone has facetiously and in an effort to be funny criticized the study of the mating call of a Central American toad, but there are research institutions that think this will have a practical application. A few years ago there was some money spent on the love life of the worm fly. It was learned that they mate only once in a lifetime, and by sterilizing the males by irradiation it was possible to eradicate a disease of cattle in Florida that is estimated to have saved $20 million a year.

Some of our critics turned funny-man have jested about research into bats, but a lot has been learned about their system of radar which keeps them from slamming into walls. Some would-be humorists and self-styled jokesters have a lot of fun talking about experiments with dolphins. They should inform themselves that dolphins use sonar and these funny people should also remember that a homing pigeon is a better navigator than man. These wits and wisecrackers should take the time to find out that flying beetles have an eye that can measure landing speed so that they can slow down for the approach and that perhaps their system can be adopted for airplanes. Those who would lampoon some of the research done by NASA should know that many industries would be delighted to learn more about how nature performs its wonders and for that reason it is a proper pursuit for Federal research.

Now, Mr. Chairman, in conclusion, let me say that if there are some sincere Members who may honestly believe that there is no urgency in this race to the moon and may even believe that there should be a reduction in this year's total authorization then even these persons should not join in the approval of this amendment, which would reduce the authorization for training and research grants: I say this is so because among those who would oppose a lunar landing there is a substantial number who recognize the scientific value of a great part

of the space exploration program. I say additionally that even those who are not at all in favor of the space program and give as their reason that more money should be spent upon research that will lead to new discoveries and breakthroughs in the field of medical science, then even these persons should oppose this amendment because some of these research grants and some of these trained scientists will be working in the field of biosciences and the life sciences and may very well come upon a discovery or accomplish a breakthrough that will free the world from the curse of cancer. I hope that this proposed amendment will be defeated and the recommendation of the Subcommittee on Space Sciences sustained.

Mr. HECHLER. Mr. Chairman, I rise in opposition to the pending amendment.

The gentleman from Indiana [Mr. ROUDEBUSH] stated that there was a great drain on the scientific personnel of the Nation by NASA. It seems to me at a time when there is a great drain on scientific personnel of NASA it is incumbent upon us in Congress to try to enrich the wellsprings of that scientific talent by doing the very thing we are trying to do here today in providing for additional scientific fellowships and scholarships through NASA. People like Van Allen and our other great scientists of today will not last forever. We must train new people to take their place. That is the purpose of this NASA scientific fellowship program.

Mr. EDMONDSON. Mr. Chairman, will the gentleman yield?

Mr. HECHLER. I yield to the able gentleman from Oklahoma.

Mr. EDMONDSON. I appreciate the gentleman from West Virginia yielding because while I am not a member of the committee, I am keenly interested in this particular field of activity.

In 1950 the United States had a clear margin of superiority over the Soviet Union in the number of engineers and scientists that graduated every year. We were graduating about 16,000 more a year than was the Soviet Union in 1950. That completely reversed itself in the period of 1950 to 1960. By 1960 the Soviet Union at that time had 111,000 graduated annually as compared with 38,000 in the United States. It seems to me that this is right at the core of the problem that we ran into in the 1950's when they put sputnik up in the air ahead of us. This is vital to our preeminence in space. If we are going to have this superiority we need this trained scientific manpower. This goes right to the heart of the problem of space leadership.

I hope the amendment will be defeated.

Mr. HECHLER. Mr. Chairman, the gentleman from Oklahoma is absolutely right. It is easy to vote a billion dollars for a manned space flight program, something that has glamour, but it is very difficult to get a little money to train the brainpower to operate the program. The only way we can keep this program moving forward is by strengthening those universities that train the talent to keep America first in space. I trust the amendment will be defeated.

Mr. ROUSH. Mr. Chairman, I move to strike out the requisite number of words.

Mr. Chairman, it grieves me to have to stand up in opposition to my colleague from Indiana. We Hoosiers have a tendency to stick together except when it comes to politics. Then some of us seem to stray from the Republican leadership that the State of Indiana has provided in this House.

I must oppose the amendment which my beloved colleague who represents Indiana so ably on our committee has offered to the House today. Anticipating this move on the part of someone, I decided it would behoove me to check and see what university presidents in Indiana would say about this particular move and how they felt about the training program which NASA is providing through the great universities and colleges of this country.

I wrote to Dr. Hovde, of Purdue University, and to Dr. Stahr, of Indiana University, and asked them how they felt about a reduction of this $55 million amount. I received a very courteous and detailed reply from each of these two distinguished university presidents.

Dr. Stahr, president of Indiana University, said this:

As for Indiana University, we could easily have used twice as many traineeships as were allotted to us in 1963 with no diminution of quality in the graduate students so supported.

Dr. Hovde, president of Purdue University, who, by the way, wrote a very detailed letter of five pages in length supporting this request for an appropriation of $55 million, said this:

The projected 1964 expenditure of $55 million by the National Aeronautics and Space Administration for facility, training, and research grants for universities and colleges throughout the United States is extremely important to our country as well as to Purdue University. Should these funds be cut back in any significant amount, the consequences will be most serious.

At an appropriate time, Mr. Chairman, I will ask the House for permission to include these letters as part of my remarks.

PURDUE UNIVERSITY,
OFFICE OF THE PRESIDENT,
Lafayette, Ind., July 6, 1963.

Hon. J. EDWARD ROUSH,
The House of Representatives,
Washington, D.C.

MY DEAR CONGRESSMAN ROUSH: Thank you for your recent letter relative to the action of the House Science and Astronautics Committee. The projected 1954 expenditure of $55 million by the National Aeronautics and Space Administration for facility, training, and research grants for universities and colleges throughout the United States is extremely important to our country as well as to Purdue University. Should these funds be cut back in any significant amount, the consequences will be most serious.

The United States is rich, indeed, in material resources. So rich, in fact, that total involvement in World War II caused only minor rationing of goods at home and the effort to put a man on the moon will require only a small part of our financial resources. But, unfortunately, we have run into a new and entirely different obstacle that will limit our race with the Soviet Union to reach the moon or explore the universe—an obstacle that will limit our ability to compete in the market place and provide jobs for our children—an obstacle that may well prevent us from deterring nuclear annihilation. This obstacle is a shortage of highly educated scientists and engineers. The symptoms and consequences of this shortage are clear for all to see.

1. Since 1900 the economic growth of the United States has been closely related to the rate at which new technologies and science are discovered and made available to civilian industry by scientists and engineers. Today the rate of growth of productivity and the rate of growth of the standard of living in the United States fall far behind nearly every other industrialized nation of the world. Part of the reason is that our shortage of engineers and scientists requires that we devote less of their time to civilian industry than many of the other nations of the world. For example, Western Europe and England combined devote more technical effort to their civilian economy than all of the United States.

2. By 1970 the potential need for engineers is expected to exceed the supply by 250,000, according to the National Science Foundation and the Bureau of Labor statistics. It would take all the engineering colleges and schools in the United States nearly 8 years to graduate this number of men at the present rate of output.

3. The number of scientists and engineers capable of doing research and development work increases by only about 7 percent per year, while total appropriations for research and development have grown at the rate of approximately 15 percent per year. Therefore, the expenditure per technical man-year has grown from roughly $19,000 in 1950 to $36,000 in 1962 and is a measure of the rate at which the supply of highly trained people is falling behind the funds of research and development.

4. During the last decade the shortage of well-qualified technical people has increased the cost of research and development to the point where there has been little, if any growth in civilian research and development supported by firms with fewer than 5,000 employees.

A shortage of manpower clearly exists in engineering, mathematics, and the physical sciences at all levels from the technician to the Ph. D., but it is the greatest at the higher levels of training.

I cannot emphasize too strongly the responsibility which NASA should assume for the education of more students in the areas of knowledge related to our space effort. It has been estimated that the anticipated growth of the space program alone would absorb the total output of engineers, mathematicians, and physicial scientists from our colleges and universities for the next few years with nothing left over for the needs of defense, our civilian economy, and more teachers to handle a growing population with increasing needs for the highest of educational opportunities. The NASA program cannot grow at the expense of these activities.

To produce more college-trained engineers, mathematicians, and scientists, we need more students, more teachers, more facilities.

A tidal wave of students is on its way to college. We must be prepared to attract greater numbers and percentages of them into these critical areas and to educate them. We have evidence on our campus that this can be done.

The most critical need is for teachers whose education has gone beyond the level of the undergraduate and graduate students whom they will teach. This accentuates the already terrific pressure of demand for those who have had the educational and research experience leading to the Ph. D. degree—a demand reflected in current salary offerings by industry of $12,000 and up for Ph. D. graduates, reported by the Purdue Placement Service.

During the next decade institutions of higher education in the United States will need at least 400,000 new teachers to cope with bright young people who will need as much education as they can profit by. Yet, if the present rate of completions of graduate study continues, we will fall short some 90,000 college teachers possessing the doctorate, if minimum acceptable standards of a faculty consist of only 30 percent doctorate holders.

Intimately related to the above is the need for large-scale financing of capital improvements and of graduate study and research.

There are two reasons for such financial need. In the first place, original research by graduate students is indispensable, not not in adding to our fund of basic knowledge, but equally in giving the student the depth of understanding that comes only with experience in discovering and attacking significant problems not yet solved. The capital investment needed for research laboratories per graduate student is vastly greater than for undergraduates.

In the second place, financial support in the form of fellowships is usually required for this rigorously selected corps of able and scholarly people, for parental support is usually not provided at the graduate level.

It is a fact that this year the Purdue Schools of Engineering are turning away hundreds of well-qualified applicants for graduate enrollment for lack of the above types of financing.

If the graduate schools in the United States are to accept the obvious challenge of increasing predoctoral enrollment in engineering and science without lowering standards, then the needs are clear.

1. Since the Federal Government now supports about 75 percent of the dollar value of university grants and contracts in the area of science and engineering, a large increase in the dollar value of university grants and contracts is necessary to increase the output of advanced degree holders over the next 10 years.

2. Since present academic facilities are already overcrowded, graduate academic facilities, including buildings and scientific equipment, must be provided through facilities grants such as proposed by the NASA. Appropriations through State and local sources fall far short of the total university needs. For instance, to provide for additional students, replace obsolete structures, and modernize usable buildings, institutions of higher learning should invest $2,300 million annually over the next decade. Current expenditures annually fall short $1 billion. In its last biennial session, the General Assembly of the State of Indiana cut the heart of Purdue University's capital requirements by providing appropriations of only $7 million to meet a requested need of $17 million. Thus universities can no longer share with the Federal Government the cost of educating predoctoral students for Federal programs. And facility, training, and research grants from the Federal Government for universities must bear a reasonable relation to the equipment, building, and overhead or indirect cost of the university.

3. Support must be provided promptly for graduate work before the tidal wave of undergraduate students hits the universities. The distractions created by either program will be difficult for the university to bear and any delay must be added to the 3 or 4 years necessary for predoctoral work.

I submit that these are urgent reasons why pending NASA appropriations should reflect greatly increased support for universities. The $55 million requested by the NASA for facility, training, and research grants for universities and colleges in 1964 is not large when it is considered that last year NASA recruited for its own staff over 2,000 professional personnel with previous research and development experience, 80 percent of whom were engineers, and 800 engineers and scientists coming directly from their college work. It is apparent that NASA is a seeker of a major fraction of the Nation's topflight professional talent and that major development costs must be a necessary and legitimate part of its program.

Purdue University's experience with the current NASA program for encouraging graduate work in engineering and the space-related sciences has been limited but nevertheless very satisfactory. We have found the general objectives of NASA research and traineeship support to be well stated and flexible enough to enable us to meet the objectives of the university, as well as those of NASA.

An outstanding example has been our experience with the NASA predoctoral research training grant program. The university has considerable freedom under this program in establishing its method of selection of trainees, their replacements, if any, and the selection of eligible areas of study in the university.

The continuity of support in the predoctoral traineeship program is a highly desirable feature. Through this continuity, the production of Ph. D.'s is substantially accelerated. Students who would otherwise seek support through part-time employment are supported as full-time students for the 3-year period.

The number of traineeships allotted to Purdue University has been much smaller than we now find we can accommodate. For the coming academic year the university proposed 20 traineeships as a starting number and was allotted 12. Applications from well-qualified students for traineeships totaled 109. Twenty-one offers were finally made to obtain 12 acceptances. While this may seem to be a high ratio of declinations to offers, it is almost exactly the same ratio experienced in our other fellowship programs. It is apparent, therefore, that of the 109 well-qualified applicants, 88 were left without offers in this program. As a result of this experience, Purdue University will most certainly request considerably more traineeships for the next academic year.

I hope that the Congress will reflect on our current critical shortage of highly talented engineers and scientists and the expanding manpower needs of the NASA program as good reasons to accept the recommendations of your House Science and Astronautics Committee.

Yours sincerely,

FREDERICK L. HOVDE,
President.

INDIANA UNIVERSITY,
Bloomington, Ind., July 23, 1963.

Hon. J. EDWARD ROUSH,
House of Representatives,
1407 New House Office Building,
Washington, D.C.

DEAR CONGRESSMAN ROUSH: I am most happy to learn that you oppose the cutback in funds requested by the National Aeronautics and Space Administration for the support of predoctoral work in space-related sciences and technology from the $55 million approved by the subcommittee to the $30,600,000 programed in fiscal year 1963, as indicated in your letter of June 27.

The 10 traineeships granted to Indiana University in 1963 were of inestimable help in making it possible to hold top young predoctoral scientists in the Midwest who otherwise might have been drained away to prestigious eastern and western universities. We think that a better distribution of scientific talent over the United States is desirable not only for ourselves but for the entire Nation. As for Indiana University, we could easily have used twice as many traineeships as were allotted to us in 1963 with no diminution of quality in the graduate students so supported.

A particularly attractive feature of the NASA traineeship is the provision for 3 years of uninterrupted support. This makes it possible for the young scientist to progress to his degree in the shortest possible time, tending thereby to guarantee completion of the degree, and conserving what has been demonstrated to be the most productive years of the scientist for work after the degree is awarded. Over a period of years this arrangement should bring about a steady increase in the number of Ph. D.'s who will become available to the profession in each succeeding year.

To broaden the basis of your argument for the larger appropriation, it might be helpful to cite our experience at Indiana University in this year's competition for university fellowships, of which we gave 78 supplemented by 8 Edwards fellowships and 13 Woodrow Wilson Supplementary Fund fellowships. After all unqualified candidates for university fellowships were carefully screened out by departmental selection committees, we still were left with seven times the number of qualified candidates as compared to the number of available fellowships. Further, there is impressive evidence in our files of the high quality of those who were not successful in the fellowship competition. Of course many, possibly most, of those rejected obtained another support of one kind or another for study somewhere in the United States, but almost inevitably the nature of this support necessitates a slowing down in the progress toward completion of a degree. And, if past experience is borne out, many who might have finished will be forced out before completing the degree by the unrelenting drain on personal economic resources.

Although progress is undoubtedly being made in attracting top talent to scientific and scholarly careers, the increasing demand for such trainees leaves the Nation still in the position of a significant imbalance between the numbers entering these professions and the need. Our own experience in recent years convinces us of the greatly increased potential for graduate study among students coming up from the high schools today. If support of these people is forthcoming, the greatly expanded need for scientists can be met.

While I am writing you, let me add that it is our hope that increased funds can be made available to NASA for grants to colleges and universities for facilities, training, and research. It has only been during the past year that Indiana University has received support from NASA. We have four projects totaling $375,000 plus the above-mentioned fellowship program supporting 10 students. You can see that this is a modest amount. However, the need is here, and we like NASA's policies; and if more funds were available, we would greatly benefit.

We especially need funds for facilities (laboratories and scientific equipment) and NASA supports these needs to a greater degree than other agencies. We could also use substantially more fellowship assistance, as I have said.

We have recently submitted a most imaginative application from our medical school for funds with which to do research on problems encountered in space exploration. This we are certain cannot be supported unless NASA receives increased funds.

The Department of Defense agencies have leveled off in their support to universities. In fact, it amounts to a reduction, since their support has remained more or less fixed while costs have increased. So, if it were not for the increased funds which have been appropriated to NIH, NSF, and NASA, the

universities would be haplessly behind in the training of graduates required by industry, education, and Government.

We appreciate very much your own enlightened interest and insight into the problem of support for graduate education.

With warm regards.

Sincerely,

ELVIS J. STAHR, Jr.,
President.

A reduction of requested funds for facility, training, and research grants may not be detrimental to present activity but it can have a far-reaching effect next year and the years after.

We are rich in material resources in the United States. We have the financial resources as well to insure our continued and vital progress and leadership in space. But we have run into a new and entirely different obstacle which will limit our ability to compete not only in space but in the marketplace, in our ability to provide jobs for our children.

This is a shortage of highly educated scientists and engineers.

Frederick L. Hovde the distinguished president of Purdue University to whom I previously referred, warns that the potential need for engineers in 1970 will exceed the supply by 270,000. He points out that a shortage of manpower clearly exists in engineering, mathematics, and the physical sciences at all levels from the technician to the Ph. D., but it is the greatest at the higher levels of training.

Dr. Hovde also emphasizes we will need at least 400,000 new teachers in institutions of higher learning in the next decade to meet the tidal wave of students on its way to college. And yet, he warns, if the present rate of completions of graduate study continues we will fall short some 90,000 college teachers possessing a doctorate degree. We will fall short this great number even if we are to adhere to minimum acceptable standards of a faculty of only 30 percent doctorate holders.

Dr. Elvis Stahr, former Secretary of the Army and now president of Indiana University, points out the NASA traineeship program provides 3 years of uninterrupted support. This makes it possible for the young scientist to progress to his degree in the shortest possible time. This conserves the most productive years of the scientist for work after the degree is awarded as well as provides a steady increase in the number of Ph. D.'s who become available to the profession in each succeeding year.

Financial support in the form of fellowships is most generally required for this rigorously selected corps of able and scholarly individuals because parental support is usually not provided at the graduate level.

Dr. Stahr emphasized the case at Indiana University in regard to the potential number of potential graduate students compared to the fellowships available. Last year the university was still left with seven times the number of qualified candidates as compared to the number of available fellowships.

Dr. Hovde also stressed that of the 109 well-qualified applicants for NASA traineeships at Purdue, 88 were left without offers in this program.

The space program is just as much a part of our efforts to win the cold war as are our other efforts. We cannot relax our vigilance, we cannot do other than our utmost.

We have an abundance of the material and financial resources to fight this war. We must insure the intellectual capability to use these resources.

I ask that the House defeat the amendment of my colleague from Indiana.

Mr. DAVIS of Georgia. Mr. Chairman, the basic objective of the meteorological systems program of the National Aeronautics and Space Administration is to develop meteorological satellites and sounding rocket technology to provide accurate and continuing weather information. NASA, in cooperation with the Weather Bureau, is working toward the fulfillment of this objective. This program is in keeping with our national policy of the peaceful use of space for the benefit of all mankind, and is dedicated toward maintaining and enhancing the leadership of the United States in the development and operation of space meteorological systems.

The NASA effort in the meteorological systems is divided into two areas: the satellite and sounding rocket programs. The meteorological satellites provide cloud photographs and infrared data pertaining to the earth's heat balance. The sounding rockets are used to obtain atmospheric data up to about 60 miles. This region is not covered by satellites or balloons and is necessary for study of the dynamics of our atmosphere.

Since the launch of the first Tiros on April 1, 1960, seven Tiros weather satellites have been launched—a record of seven successes out of seven launches. Further, with the exception of a total of about 9 months, these satellites have been producing cloud photographs continuously to the present. Tiros VI launched on September 18, 1962, continues to operate with one of its two cameras, and has been transmitting cloud photographs for over 10 months—7 months beyond the designed expectancy. Tiros VII is in orbit with both cameras and other experiments operating successfully.

Tiros has provided extensive operational support to the Weather Bureau based on over a quarter million cloud photographs, in addition to infrared meteorological data. From these pictures, over 5,000 cloud cover analyses were prepared, over 700 special storm advisories have been issued, and there have been 300 specific instances where weather analysis has been improved. Ten hurricanes and 21 typhoons were observed, reported and tracked. This type of support has proven invaluable to the Weather Bureau and the Department of Defense in their day-to-day operations. Lastly, but not least, Tiros has provided a wealth of very useful data to research meteorologists not only in Government agencies but to universities and research institutes throughout the world and has thus increased our Nation's knowledge and advancement in the understanding of atmospheric phenomena.

During the fiscal year 1964, and especially to cover the hurricane-typhoon season, additional Tiros satellites will be launched. An improved, second generation weather satellite, Nimbus, now nearing completion will also be placed in orbit. Nimbus will have wider capabilities than Tiros as a result of its improved sensors and its near polar orbit.

Incorporated into the next Tiros to be launched is an automatic picture transmission—APT—system. This system will televise local cloud pictures for local use. This means weather people will be able to get cloud pictures over their immediate area anywhere in the world. The Department of Defense and Weather Bureau are installing receiving equipment for this system in various parts of the world.

Since Tiros is space oriented, that is, it faces the earth only on a portion of its orbit, and is inclined at 58° to the equator, it is limited in its coverage of the world. Therefore, a polar orbiting, earth oriented cartwheel Tiros is planned for the near future and this spacecraft will also carry the automatic picture transmission system for local users. This means weather people equipped with low-cost ground equipment will be able to obtain cloud pictures over their immediate area anywhere in the world.

To acquire necessary atmospheric data from the earth's surface to an altitude of about 60 miles, 110 small sounding rockets of the Arcas and Loki class will be launched during the current fiscal year. Forty-eight large sounding rockets of the Nike-Cajun class are scheduled. Temperatures, wind velocity, and direction, air density and pressure and other useful data will be measured or collected.

It is desirable to extend the meteorological coverage capability beyond that of the Tiros and Nimbus satellites by providing continuous cloud coverage of the earth. It is planned to continue work already initiated which will lead to the eventual development of a synchronous meteorological system. This system will be earth oriented and will continuously view an assigned portion of the earth. Three such satellites properly positioned in an orbit having an altitude of 22,300 miles will cover essentially the entire globe.

In order to furnish necessary information for the synchronous satellite, two Tiros satellites will be launched in eccentric orbits to test sensors and other equipments, and to gain knowledge on the effects of radiation on components at synchronous altitudes.

Mr. CASEY. Mr. Chairman, the authorization bill before the House includes $489,116,000 for the construction of new facilities and the modernization and expansion of existing plant in support of the manned space flight program. The National Aeronautics and Space Administration requested $564,538,000 for this purpose. An exhaustive review of the requirements for new facilities by the Subcommittee on Manned Space Flight resulted in a reduction of $75,422,000 or 13.4 percent.

The very careful scrutiny of this program has paid dividends. In general,

the committee has tried to avoid elimination from the program of any item included therein which would in any way impair the effectiveness of our national space effort. However, where deferral seemed reasonably possible, we felt it to be in the national interest to do so.

The achievement of a 13.4-percent reduction in this part of the Nation's space program is without precedent in the history of NASA. To achieve such a reduction without in any way adversely affecting the space effort required a painstaking line item review of 64 individual budget requests, as well as numerous onsite inspections in the field by various members of the committee. Of the 64 projects for which new authorization was requested, only 19 survived without some adjustment having been made by the committee.

The amount remaining in the bill will provide the minimum essential facilities in fiscal year 1964 to realize an orderly, planned increment of the physical plant necessary to achieve our national goal of placing a man on the moon and returning him safely to earth within this decade. The authorization will provide vital construction at five NASA centers and eight contractor installations, in eight States. The States of Oklahoma, California, Florida, Louisiana, Mississippi, Missouri, New Mexico, and Texas will benefit from this effort. The construction to be provided by this year's increment is primarily operational, developmental, and support type facilities.

Over half of the fiscal year 1964 construction effort—$274 million—in manned space flight is programed for the further buildup of launch and launch supporting facilities at the launch operations center, Cape Canaveral, Fla. Here, construction is continuing at a rapid pace on the unique facilities required for the preflight assembly, checkout, and the launching of the manned space flight vehicles. With the advent of the Saturn class of launch vehicles, launch and ground support facilities moved to a new level of significance, owing chiefly to their increased complexity. The new launch complex No. 39, which will provide the assembly building, launching pads and other facilities for the manned lunar landing program, is now under construction, and the fiscal year 1964 increment will complete 90 percent of the requirement.

Construction of new developmental testing installation, the Mississippi Test Facility, was started this past spring. This program includes the second increment of these facilities—$92.7 million—which are so vital to the success of the manned space flight program. Here, test stands and other testing devices are being constructed to provide for the static testing of heavy rocket stages and engines required to launch the Apollo lunar missions. The Advanced Saturn S–1C and S–II stages with their clustered F–1 engines, to be assembled at the Michoud plant, will be transported by barge from the plant and static test fired at the Mississippi Test Facility, prior to final assembly and mating with the Apollo spacecraft for the lunar mission at Cape Canaveral.

This program also includes the second increment of facilities—$35.1 million—for the Manned Spacecraft Center near Houston, Tex. This Center, the home of America's astronauts, has as its primary mission the development of spacecraft for manned space flight, the training of astronauts and the conduct of manned flight operations. The fiscal year 1964 program will provide only the minimum operational, developmental, and support facilities needed to meet early development and training objectives.

Another increment of construction at the Marshall Space Flight Center—$29 million—is being provided in fiscal year 1964. At this Center launch vehicles and space transportation systems to meet the space program requirements are being developed. The facilities to be provided are primarily of an operational and developmental nature. The Marshall Center supervises the Mississippi Test Facility, and also the Michoud plant near New Orleans, La., where additional production facilities are being provided in fiscal year 1964—$8.7 million.

In addition to the major program elements I have mentioned, contractor facilities necessary for the research and development of spacecraft, launch vehicles, rocket engines, and other components, are being provided in California, Missouri, New Mexico, and Florida—$49.7 million. These facilities include further testing and evaluation devices, manufacturing equipment, and a lunar excursion module testing area.

Time has permitted only a brief outline of the construction of facilities included in the manned space flight program. The committee has subjected this portion of the program to an exhaustive analysis. I believe that we have included for fiscal year 1964 only those items which are absolutely essential to the success of the program.

Mr. FULTON of Tennessee. Mr. Chairman, 2 years ago President Kennedy and Congress committed this Nation to a position of preeminence in the conquest of space. At that time the United States was dangerously trailing in this field. In these 2 years we have made great strides.

Credit for the achievements of these years, culminating with Major Cooper's dramatic flight and the successful completion of Project Mercury must be given to many. Certainly the President's decision was of immeasurable value. To the men of the National Aeronautics and Space Administration this Nation owes a real debt of gratitude for their vision, ability, teamwork and tenacity in getting the job done in a generally rapid and efficient manner.

A great deal of credit must go to the Members of the Congress who recognized the challenge of outer space and moved without hesitation to meet that challenge.

Finally, and in the last analysis, the bulk of the credit must be given to the people of this Nation. For, without their realization of the need for this program and without their dedicated support, there would have been no progress. When the Congress gave legislative approval to the space program, it was reflecting the overwhelming sentiment of the people of the United States.

Some are puzzled as to why the United States would spend the necessary billions to go to the moon and into outer space. Some ask: "Why go there at all?" Why indeed? The drive to explore the unknown led to the building of our great Nation, it led to its discovery. Christopher Columbus sought a passage to the east by sailing west. His voyage was a failure, but the most profitable failure in the world's history. Columbus, of course, to many was insane. Everyone knew there was nothing to be gained by his voyage, and that his ships would probably sail right to the end of this flat old earth and cascade into eternal blackness.

After Columbus came a long line of so-called madmen—Hudson, De Soto, Crocket, Boone, Lewis and Clark. It was men like these who blazed the trail to a great America. Today we have a new breed of so-called nuts—those affected with lunar madness—the von Brauns, the Gilruths, the Webbs—and the Gordon Coopers and the John Glenns. It is such men as these who will lead a great America in the conquest of outer space.

When I came to the Congress in January I was honored with a seat on the Committee for Science and Astronautics. In these short months I have watched the drafting of this NASA authorization, and I have participated in it. The members of this committee have worked long and diligently at this task. The $5.2 billion approved is nearly half a billion dollars less than requested, a substantial saving in tax dollars. But this authorization is adequate to let the United States fill the role in the conquest of space to which this Nation is committed.

Gentlemen, I fully support H.R. 7500. I support this bill because the program of exploration and conquest of outer space is vital to the national interest of the United States, I support it because it is in keeping with the pioneer spirit of this great Nation, I support it because the American people support this program, and I support it because if ever a Russian cosmonaut lands on the moon I want him to be greeted by an American flag planted by an American astronaut.

SPACE IS OUR CHALLENGE

Mr. FUQUA. Mr. Chairman, I rise today in support of H.R. 7500 which authorizes $5.2 billion for the National Aeronautics and Space Administration.

As a member of the Science and Astronautics Committee of the House, I have had the privilege of assisting in a careful study of this budget, and in my opinion it is a good one.

Long hours of careful study have gone into this proposed authorization. I feel that we have made all of the necessary economy measures needed, and that this is a realistic authorization to meet the goals of this Nation in space.

We realize that we are in a race with the Communists to be first in space. This Nation must be first, for just as the Nation that once could control the skies, could control the outcome of armed conflict, so can the Nation today that can control space have military superiority

in the years to come. We dare not do less. We do so not to conquer, but rather to have the might that will deter aggression. We seek superiority in space not for conquest, but to stand as a bulwark for free men everywhere against the forces of tyranny.

Space is the challenge of our time. We stand on the threshold of advancements such as the world has never seen. As Columbus charted new worlds, as the Wright brothers ushered in a new era, so the American people today, united in a gigantic effort, are charting new worlds of scientific advancement.

I think the reasons that this Nation has dedicated itself to superiority in the space race is obvious. I think this is one of the most momentous decisions that this Nation has made, and I am confident that we will succeed.

This budget or authorization which we are voting on today is our method of speaking for the American people that we are meeting this challenge. I know that those of you who have had the opportunity to following the hearings and study that went into this proposal know that we have made the needed economy moves, while maintaining all of the needed and necessary programs.

I trust that we will pass this authorization with an overwhelming vote in another chapter in this tremendously important program for Americans of today and tomorrow, and in truth for all mankind for ages yet to come.

Mr. STAEBLER. Mr. Chairman, I ask unanimous consent to extend my remarks at this point in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from Michigan?

There was no objection.

Mr. STAEBLER. Mr. Chairman, the portion of the program dealing with geophysics and astronomy consists of a dozen different studies concerned with the problems we will encounter as we move farther from the surface of the earth.

The space surrounding the earth can be divided into three regions: the upper atmosphere, the ionosphere, and the magnetosphere. The upper atmosphere begins at an altitude of about 18 miles, where the mix of components of the atmosphere changes significantly from that at sea level. The upper atmosphere extends from 18 miles out to approximately 60 miles, where the significant components are no longer neutral atoms and molecules but consist of electrons and ions. The ionosphere begins at about 60 miles and extends to about 300 miles. It is this layer which forms the mirror against which radio waves bounce and return to earth. The magnetosphere extends from 300 miles to a region many thousands of miles distant from the earth.

So far, our space travel has taken place in the upper atmosphere and the ionosphere. Our next significant travels will take us into the magnetosphere. We have been studying the upper atmosphere, for some little time but there is much that we do not know and much that we will need to know before we begin our programs of travel beyond the immediate vicinity of the earth. We need more information on radiation, on the magnetic phenomena in space, on the characteristics of the ionosphere and magnetosphere as they affect radio communication, on the many kinds of particles that will be encountered in space, and on the tremendous variations in temperature which occur, ranging from around 400° Fahrenheit to more than 2,000°. Such variations have an important effect upon the orbits of satellites. As temperature increases, it raises the height of the atmosphere and changes its density.

To study these and the many other phenomena we have a rapidly increasing collection of scientific tools. One of the most productive and least expensive is the sounding rocket. It is a device which has been utilized over many years and is very reliable. Its peculiar advantage is that it provides a horizontal cross-section sampling of the atmosphere and ionosphere. Another tool is the satellite, which has now been developed in a wide range of capabilities. Satellites, placed in orbit around the earth at various altitudes, provide long-term capabilities for gathering data. In the committee report you will see these referred to as "explorers," "monitors," "observatories," or other designations. Explorers are designed to look for things which are completely unknown; monitors are used for the continuous collection of data needed for checking on behavior and phenomena which are known to exist; and observatories are the larger, heavier, and more expensive satellites designed to carry out more intensive and more accurate experiments.

Most of the phenomena in our atmosphere, the ionosphere, and the magnetosphere are connected with the sun and with variations in its behavior. Much of the geophysics and astronomy program is devoted to a study of the sun. In view of the fact that all terrestrial life depends upon the sun, it is rather astonishing to discover how little we know about it and how inadequate our understanding of it really is. We know its size—approximately 1,300,000 times the size of our globe. We can make some estimates of its temperature, which in some of the processes that occur in the sun may go as high as 20 million degrees centigrade.

The sun, which affects a wide variety of activities on this earth, has an equally profound relation to all space travel. As is well known, solar activity bears some relation to the emergence of sun spots. These have been studied over a period of years and we find that they occur in a fairly regular 11-year cycle. We are near the end of one of these 11-year cycles and next year, 1964, will be the low point of sunspot activity, the so-called year of the quiet sun. It is a period of unusual opportunity for research and study.

Much of the program will be devoted to a study of earth-sun relationships, solar emissions, and a correlation of solar phenomena with changes in magnetic activity, the intensity of radiation and particles in space.

One of the twelve studies included in the geophysics and astronomy program will deal with the earth gravitational field, designed to refine our calibrations for space travel. In our measurements of our globe, our points of reference are accurate enough for earth travel, but a very small inaccuracy multiplies many times over in the long distances encountered in space travel.

The development of orbiting satellites has made possible another breakthrough in the study of more distant stars, planets, and other bodies. All observation from the earth's surface is restricted by our atmospheric cover. Consequently the development of the new orbiting observatories is permitting a very fruitful, deeper and more accurate look at the bodies around us.

Finally, one further part of the program provides for cooperative participation in international exploration of space. By cooperating with scientists in the United Kingdom, Canada, Italy, and France, we are securing an increase in the body of knowledge open to everyone at modest cost to ourselves.

What we are learning through the geophysics and astronomy program is an indispensable prerequisite to space travel but it has far greater significance than that. It will provide the indispensable body of knowledge on which to base future developments in communication, weather forecasting, and the conversion of energy. But the full effect of what we learn will go far beyond these immediate applications: We are unlocking some of the great secrets of the universe and they will provide building blocks of knowledge for an infinite variety of uses.

Mr. SNYDER. Mr. Chairman, I rise in support of the amendment. I would like to direct a few questions to those who have risen in opposition to this amendment, particularly the gentlemen from Minnesota and West Virginia. I have here some correspondence I have had with NASA, and I am particularly interested in knowing whether or not supporting this amendment would prohibit additional grants for studies of ways to communicate between humans and dolphins. These are fish, as I understand it. I am interested in knowing whether or not this particular appropriation that is here attempted to be cut is the one which includes things like this.

Mr. MILLER of California. I believe that if the gentleman will go into this, he will find that this is a project that the Navy is carrying on and not NASA.

Mr. SNYDER. If the gentleman would like to see my correspondence, I have a copy of the contract which NASA entered into for $80,700. Their explanation of the contract is as follows:

> Acknowledging the possibility of encountering life forms in exploration of the planets, research into various means of communication is within the theoretical concepts of the space research program.

We have NASA conducting research with dolphins and apparently they want to talk to dolphins on the various planets. My question is, will supporting this amendment be voting to cut out things like this.

Mr. MILLER of California. No, I do not think you will, because this is not the school program. If the gentleman is interested in this subject, may I say that for many years I served as chairman of the Subcommittee on Oceanography of the Committee on Merchant Marine and Fisheries and I cannot think of a program that is of much more value than this dolphin program. There are great strides that have been made in it, and it is something that has been kept under wraps.

Mr. SNYDER. Will the gentleman tell me what they have been able to find out from these dolphins?

Mr. MILLER of California. I think they found out that the dolphins can communicate and that the dolphins can be trained to do a lot of things that you and I have no conception of. I would suggest that if the gentleman wants to go out to the naval laboratory, I think they would give him some information that I am not privileged to give him but which would be very interesting to him. This program has all been carried on at Bimini for quite some time.

Mr. SNYDER. I can conceive of the dolphin program within the concept of the Navy, but I have a little difficulty in conceiving of a program such as this within the NASA authorizations.

Mr. ROUDEBUSH. Mr. Chairman, will the gentleman yield?

Mr. SNYDER. I yield to the gentleman.

Mr. ROUDEBUSH. Mr. Chairman, I asked the gentleman to yield so that I could correct something that might be a misapprehension or a misstatement, unintentionally, I am sure, on the part of the gentleman from Minnesota. First, the purpose of my amendment is not to cut the appropriation at all. It continues at the same amount that was in existence for 1963, which is $10 million for facility grants, $15 million for training grants, and $5,600,000 for research grants. Therefore, I believe the dolphin-type programs will be included.

Mr. BRUCE. Mr. Chairman, will the gentleman yield?

Mr. SNYDER. I yield to the gentleman.

Mr. BRUCE. Mr. Chairman, I would like to make one observation. The gentleman from Indiana, our esteemed colleague [Mr. ROUSH], pointed out that in Indiana the one thing we never agree on apparently is politics. I would point out that the easy way to play politics would be for us on this side to acquiesce to the requests of educators. The difficult role is to rise above politics and stand in opposition to requests which we think are unsound.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Indiana [Mr. ROUDEBUSH].

Mr. ROUDEBUSH. Mr. Chairman, I demand tellers.

Tellers were ordered, and the Chairman appointed as tellers Mr. ROUDEBUSH and Mr. KARTH.

The committee divided, and the tellers reported that there were—ayes 140, noes 129.

So the amendment was agreed to.

AMENDMENT OFFERED BY MR. WYDLER

Mr. WYDLER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. WYDLER: Page 4, strike out line 16 and all that follows down through page 5, line 2, and insert the following:

"(h) No part of the funds authorized by this section may be expended for the establishment of, nor hiring personnel connected with, an Electronic Research Center. The Administrator (prior to the consideration of the next authorization Act by the Committee on Aeronautical and Space Sciences of the Senate and the Committee on Science and Astronautics of the House of Representatives) shall transmit to the Congress a detailed study of the geographic location of, the need for, and the nature of the proposed Center, together with such request for an authorization of appropriations for such Center as may be appropriate in the light of such study."

Page 2, line 23, strike out "$148,653,000" and insert "$144,753,000".

Mr. WYDLER. Mr. Chairman, I rise to offer this amendment because I agree with my colleagues on the committee that the evidence before Congress is inconclusive and that the establishment of an electronic research center is not now justified.

In spite of this finding in the report, the bill now before the Congress provides that we should authorize the money at this time, before the facts are presented, and leave the determination to the few of us on the committee to make later as we see fit.

In other words, you are being asked to give up your prerogatives and avoid your responsibilities and to give us a blank check. I submit there is no reason in logic for this to be done. You should not vote to authorize money, the need for which the committee reports has not been shown.

My amendment merely states that the funds should not be authorized until the need for them is proven. My amendment deletes the funds at this time and directs the Administrator of NASA to submit his further report to Congress justifying the program and site selection, together with an appropriate request for an authorization of appropriations for such a research center.

Under my amendment, when you vote on that request you will know what you are voting for. In the meanwhile, you will reduce the proposed spending in this budget by $3.9 million and retain control over future spending which will amount to at least $56 million, the estimated cost of the project completion.

For those of us who campaigned on a slogan of cutting unnecessary spending—a group which includes us all—this is a rare and perfect opportunity for performance.

I am sure that most of you by this time are thoroughly confused by the purposes of the drafters of this particular section of the bill. This is just the last example of the strange behavior of those dealing with this proposal to build an electronic research center. Those dealing with the question seem at times to be possessed of a demon, and some have suggested that the mysteries surrounding this proposal compare favorably with those to be found in outer space.

To begin with, the usual two-step procedure of first asking Congress to authorize the project and then determining where it should be built was not followed. Here the site selected, namely Boston, was included as a part of the original authorizing proposal. From the start the proposed center and its location were treated with equal importance. It was only with the greatest reluctance that any witness would admit there was another choice location in the whole United States of America. When NASA requested an electronic research center in Boston, it made clear it meant just that.

I do not intend to rehash all the innuendos of "undue influence" that have been leveled against this proposal. By this time nearly every responsible official of NASA has denied vehemently that the President's brother before last fall's election or the junior Senator from Massachusetts after the election played any part in the determination of the site selected. In fact, we are assured by the Administrator himself that the secret was kept from him for months.

On the other hand, the Director of the Electronics and Control Office of the Department of Advance Research and Technology, the man who suggested Boston, when asked why he chose Boston as a site, testified that it was a "hot house environment" necessary for a "little orchid." There are some of us who take exception to calling a $50 million research center a "little orchid." When pressed as to why it could not be built anywhere else in the United States, he stated you could not grow an orchid in the "desert."

And I do not find reassuring this explanation by NASA on how this matter was handled before the Bureau of the Budget. When asked for an explanation of what happened NASA submitted the following, and I quote:

In the process of presenting NASA's fiscal year 1964 budget to the President for approval, the Administrator of NASA initially discussed the proposed electronics research center and the suggested Boston location in mid-October 1962. It was decided at that time that the proposed center would be handled discreetly within the executive department until a reasonable time had elapsed after the November elections in order to obviate the impact this proposal might have had. The NASA Administrator reviewed the proposed center with the Director of the Bureau of the Budget in the first half of December 1962 during detailed discussions of the total NASA budget. These discussions included the requirement for the center, the role of the center within and without the agency, the proposed location, and other details. After review of proposals for the national budget, taking into consideration the recommendations of the Director of the Bureau of the Budget and agency heads, the President included the proposed center in the fiscal year 1964 budget sent to Congress.

It is, indeed, strange that this matter which had been under consideration for 10 months was decided upon so late that it had to be inserted in the budget estimate books of NASA after the books had been originally ordered and printed.

However, let us get clear what the issue is today. The committee agrees that the need for the center has to be fully established. I asked the Associate Administrator what specific research projects would be performed at this center, and he told me that they were going to get 25 to 30 people together who would "plan out in detail what projects should be carried out in the Boston area." This was on March 20, long after the proposal to build the center had been submitted to Congress. It is even more revealing to find that NASA has two completely different site concepts under study even now. Originally a vast 1,000-acre site was requested in the budget, but now they have ordered a $10,000 study of a site, to be built on stilts over a highway, of about 100 acres. This indicates to me that the committee is right in concluding that this suggestion needs more thoughtful objective consideration. The question of the need for this center should be established first, independent of the question of its location.

There is, I believe, a serious constitutional question whether Congress can, as this bill now provides, delegate authorizing authority to its committees under these conditions. In any case, and more important, there is no reason to do so.

This is a vast and long-range proposal. The center will gradually employ people, and it is planned that this will reach at least 2,000 or more. The center will cost at least $56 million to build. It will cost at least $30 million a year to operate.

I am not against Boston as a site. I am of the opinion that Congress should know all the facts before it embarks on such a vast project. To me the center is so important that I do not believe it should come into existence under a cloud with a bad name like an illegitimate child. Boston may be the right choice, but we should be sure. Whatever site is selected, the center will be a boon to any area in which it locates. It will direct procurement of hundreds of millions of dollars every year and will act as a magnet to attract industrial development. All areas should be considered fairly, squarely, fully—including even other areas in New England. I am sure there are many men here who wish to be heard from in this connection.

As it stands now, we are being asked to authorize $3.9 million for this purpose and then to conduct a study to determine if some of us believe that we need it. The fact is that we may not need it at all, or we may need less, or we may need more. Whatever happens, we are almost sure to be wrong.

Under my amendment we will be sure to do what we want and intend to do and will have all the facts before us when we act.

Mr. Chairman, I respectfully urge the adoption of my amendment.

Mr. BECKER. Mr. Chairman, will the gentleman yield?

Mr. WYDLER. I yield to the gentleman from New York.

Mr. BECKER. Mr. Chairman, I want to compliment my colleague the gentleman from New York [Mr. WYDLER], for that very fine and factual statement which he has made on the floor of the House this afternoon.

Mr. WYDLER. I thank my colleague.

Mr. MARTIN of Massachusetts. Mr. Chairman, I rise in opposition to the pending amendment.

Mr. Chairman, I am surprised that so much hysteria has been built up here concerning this suggested authorization. To my knowledge there is not as much politics in this proposal as they are trying to make out.

I never knew Senator KENNEDY until after the elections. But he was elected. I do know politics to a certain extent, and I am around where I hear the gossip. I do not think Senator KENNEDY had the slightest thing to do with this until after he was elected Senator. Overtures might have been made, but to my knowledge there is no politics like they suggest. The allegation is a red herring being drawn to defeat the New England proposal.

I know of course, Senator KENNEDY is in favor of the Massachusetts research laboratory. If he did oppose it he would not be Senator now, or probably would not be the next time, because any Senator or Representative must stand up for his State and work for his State when he is in office.

I do not think the Republicans opposed to the Massachusetts site are making much political hay by trying to create this issue.

I want to say one thing more, and then get to my own State. There were only one or two people on that committee who were not convinced that the group of scientists that selected this had selected the right place for the site. There was a spirit of fairness in the committee. They did not want to run over any other person who might have had a site to offer who had not had the opportunity to present their views. So they came to an understanding that they would not recommend the site, that they would put it where it had to be reviewed again by the scientists, who presumably know more about the program than we who are here know about it. Then the proposal had to come back to the committee.

What committee would it come back to if it would not go back to the Science Committee? This Science Committee consists of a good group of men and they all know their stuff, speaking in the language of the street. They could send it to the Committee on Foreign Affairs or some other committee, but the committee would not be acquainted with the situation. Therefore, we named the right committee.

So I think the opposition is being built up on reports and false theories. I heard about the Kennedy business ever since I have been here this year because the papers have been printing a good deal about it, but I do not believe that is a proper charge to be made against the administration. I would not knowingly offend the President of the United States. I know him. He is a friend of mine. And I dislike to be forced by my Republican friends to come to his defense.

I say I do not believe the charge is true. I know that Massachusetts can present a case before any jury, any fair jury, any jury that is not politically minded, and win it. I want, as I hope everybody else does in Massachusetts, and in the country as far as that is concerned, to do that which is best for the space effort. We want to do that which is best for the conquest of space. I believe in leaving it to the scientists to make this selection. We present our case and the gentleman from New York can present his case or the gentleman from California or wherever he may be from. However, let us not rebuke this committee. This committee is made up of intelligent men and women. Let us not rebuke our own committee and take it away from them. I hope the amendment will be defeated.

Mr. SHRIVER. Mr. Chairman, I ask unanimous consent that the gentleman from Massachusetts [Mr. CONTE] may extend his remarks at this point in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. CONTE. Mr. Chairman, I want to join my colleagues from Massachusetts in stressing the importance of the proposed electronics research center in the Greater Boston area.

It is certainly true that all New England would benefit from this center.

There is a critical need for a research-development effort in space-related electronics and control. For this reason, it is important that the center be placed in an area rich with academic achievement and close to a budding industrial region.

The NASA commitment requires coordination at all levels, and this research center will provide impetus in this area, and will contribute greatly to the space efforts of the United States.

The center will provide a focal point for scientists, engineers, technicians, and other personnel participating in electronics and related physics research required for our future space explorations.

Specified in-house research and development, which is essential to the lofty U.S. space goals, will be performed at this center.

It is obvious, Mr. Chairman, that New England and the Commonwealth of Massachusetts is ideally equipped educationally and industrially for this center.

In Massachusetts, Mr. Chairman, we have the greatest concentration of brain power in the world. As the Science and Astronautics Committee report suggested, it is essential that this center be in close proximity to this great abundance of talent, brains, and industrial know-how.

Mr. WAGGONNER. Mr. Chairman, I ask unanimous consent that the gentleman from Massachusetts [Mr. MACDONALD] may extend his remarks at this point in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. MACDONALD. Mr. Chairman, when President Kennedy recommended expansion and acceleration of the national space program in his first state of the Union message, he described the program as part of "the battle that is going on around the world between freedom and tyranny—the battle for men's minds." He made it clear to the Congress that a difficult, expensive, and comprehensive program, in space sciences and technology, would be necessary. In this connection he stated: "This decision demands a major national commitment of scientific and technical manpower, material and facilities, and the possibility of their diversion from other important activities where they are already thinly spread." This continues to be the problem of the space program. It is absolutely essential that H.R. 7500, the legislation we are considering today which authorizes appropriations for the National Aeronautics and Space Administration, be given most serious and objective attention.

This authorization bill reflects the many facets of the scientific, research, and development work of the National Aeronautics and Space Administration. Each part is essential to the proper functioning of the total NASA program. In the past, NASA has been able to build on known technology or to accelerate previously instituted programs of research and development. For example NASA was able to expand on the talents available from the National Advisory Committee for Aeronautics. It was able to integrate into its program certain of the work of the Army Ballistics Missile Agency, under Dr. Wernher von Braun, at Hunstville, Ala., the Vanguard team from the Naval Research Laboratory, and the Jet Propulsion Laboratory which had been under Army contract. NASA has been able to integrate the work of these separate teams and on them to build sound and forward-looking space programs in the aeronautical and propulsion fields.

However, a less satisfactory foundation has existed with respect to electronics and its related physics disciplines. Extraordinary steps were deemed necessary to keep this vital phase of the space sciences in pace with the rest of the program. The major importance of electronics components, technology, and instrumentation, in all space endeavors, made it doubly necessary to broaden NASA's space electronics research base as rapidly as possible.

An extensive study of the best way to approach this problem was inaugurated by NASA, in which various approaches were explored. After careful analysis, NASA decided that the most effective solution was to establish a new research center, specifically devoted to research in electronics and related physics disciplines. This research center would permit a concentration of scientific talent in one place; it would avoid conflicts between development missions and research efforts in other fields; and it would provide a variety of research facilities under a singleness of direction. NASA officials told members of the House Committee on Science and Astronautics that such a center would lead to a rapid development of a critical mass of electronics research data. I wish to point out to my colleagues that this center is for research and not for development of hardware or for production of electronic components or subsystems. The results of its research will be available to all. It should be a factor in the growth of electronic and related industries in every section of the country. There are estimates that about three-fourths of the cost of spacecraft goes for electronics. However at present, members of the industrial community undertaking spacecraft contracts spend no more than 5 percent of their resources for electronic research.

Once this decision was made, further studies were conducted as to the proper location of such a facility. These studies included consideration of a host of criteria. One paramount consideration was the availability of adequate utilities and services such as power, water, communications, and sanitary facilities. Another involved the proximity of institutions of higher scientific and engineering education. I wish to emphasize that such institutions serve not only as a basis for the interchange of ideas but also provide facilities for additional study by members of the research center's staff. Still other considerations included the need for the new center to be located in an industrial community in which interests with similar technical work were available. It was essential, because of the proposed size of the center, that the new installation would have available to it satisfactory community facilities such as housing, recreation, schools, colleges, and a variety of transportation services.

The National Aeronautics and Space Administration, after careful consideration, decided that the best place to locate the electronics research center was in the Greater Boston area. The conclusion that the Greater Boston area represented the single most desirable location for the center was reached only after thorough scrutiny of potential areas throughout the country. NASA authorities found that Greater Boston contained the best overall combination of university and industrial strength, accessible community and transportation facilities, and capability for electronics and guidance research. In addition, Boston has long been known for its concentration on electronics and related physics research, both in industry and universities. NASA officials felt that this would provide a stimulating atmosphere for the new center. After weighing all these factors, the final decision was reached and Greater Boston was selected as the most suitable location.

On behalf of myself and the entire Massachusetts delegation, I should like to commend the foresight, vision, and decision of the National Aeronautics and Space Administration in this matter. I would also like to commend to my colleagues the favorable consideration of H.R. 7500, the authorization before us today which initiates this very important phase of America's space effort.

Mr. DONOHUE. Mr. Chairman, I most earnestly urge my colleagues here to thoroughly and conscientiously examine the meaning and effect of this proposed amendment and when that has been done I am confident the great majority of the House will reject it.

The meaning and purpose of this amendment is to eliminate from the committee bill, section (h) and reduce, by several million dollars, the recommended appropriation for various locations, item 12, in section (b).

In truth and reality the result of any acceptance of this amendment would be an enforced delay, of at least a year, not of the actual start of construction of an electronic research center, anywhere, but also of the further study, by NASA of the need of such a research center in the public and national interest.

Let us bear in mind that the officials of this vitally important agency have, in fulfillment of their directed and public responsibility, already recommended, after considerable study, the construction of such a center and presented impressive evidence as to the need for it. This is their job, this is their sworn duty. It is, indeed, the duty of congressional committees to review departmental recommendations and scrutinize the evidence presented by departmental witnesses. I submit that the record before us clearly shows that the NASA witnesses conscientiously attempted to fulfill their duty and, certainly, the distinguished chairman and dedicated members of the House Committee on Science and Astronautics have fully discharged their onerous responsibility of insuring that this Nation maintains its competitive position in space exploration and related projections, with good sense and economical expenditures. In accord with this wise attitude the committee instructed, in this bill, the agency to further study the need for an electronic research center and to justify, further, the recommended location. Pending the congressional committees review, over a 45-day period, of these additional agency reports the agency shall take no implementing action; could anything be fairer or more protective of the legislative duty and responsibility involved?

Mr. Chairman, I submit that space exploration and its associated activities is of vital importance to national security and development; that the subject itself is a highly technical one requiring intense and persevering study; and that the acclaimed chairman and respected members of the Committee on Science and Astronautics are the most qualified judges and advisers in this difficult legislative field. Let us, therefore, accept their studious judgment and patriotic recommendations, as presented in this bill, and reject this amendment.

The CHAIRMAN. The question is on the amendment offered by the gentleman from New York [Mr. WYDLER].

The question was taken; and on a division (demanded by Mr. WYDLER) there were—ayes 64, noes 111.

So the amendment was rejected.

The CHAIRMAN. Under the rule, the Committee rises.

Accordingly, the Committee rose; and the Speaker having resumed the chair, Mr. THOMAS, Chairman of the Commit-

tee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H.R. 7500) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and administrative operations; and for other purposes, pursuant to House Resolution 467, he reported the bill back to the House with sundry amendments adopted by the Committee of the Whole.

The SPEAKER. Under the rule, the previous question is ordered. Is a separate vote demanded on any amendment? If not, the Chair will put them en gros.

The amendments were agreed to.

The SPEAKER. The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

MOTION OFFERED BY MR. SILER

Mr. SILER. Mr. Speaker, I offer a motion to recommit.

The SPEAKER. Is the gentleman opposed to the bill?

Mr. SILER. I am, sir, in its present condition.

The SPEAKER. The gentleman qualifies.

The Clerk read as follows:

Mr. SILER moves that the bill (H.R. 7500) be recommitted to the Committee on Science and Astronautics.

The motion was rejected.

The SPEAKER. The question is on passage of the bill.

Mr. MILLER of California. Mr. Speaker, on that I ask for the yeas and nays.

The yeas and nays were ordered.

The question was taken; and there were—yeas 335, nays 57, not voting 40, as follows:

[Roll No. 111]

YEAS—335

Abbitt
Abernethy
Adair
Addabbo
Albert
Alger
Anderson
Andrews
Ashley
Ashmore
Aspinall
Auchincloss
Avery
Ayres
Baker
Baldwin
Baring
Barrett
Barry
Bates
Becker
Beckworth
Belcher
Bell
Bennett, Fla.
Bennett, Mich.
Boggs
Boland
Bolling
Bolton, Frances P.
Bolton, Oliver P.
Bonner
Brademas
Bray
Brock
Bromwell
Brooks
Broomfield
Brown, Calif.
Broyhill, N.C.
Broyhill, Va.
Bruce
Burke
Burkhalter
Burleson
Burton
Byrne, Pa.
Cahill
Cameron
Cannon
Carey
Casey
Cederberg
Celler
Chamberlain
Chelf
Chenoweth
Clancy
Clark
Clawson, Del
Cleveland
Cohelan
Conte
Cooley
Corbett
Corman
Curtin
Daddario
Dague
Daniels
Davis, Ga.
Dawson
Delaney
Denton
Derounian
Diggs
Donohue
Dorn
Dowdy
Downing
Dulski
Duncan
Dwyer
Edmondson
Edwards
Elliott
Ellsworth
Fallon
Farbstein
Fascell
Feighan
Finnegan
Fisher
Flood
Fogarty
Ford
Foreman
Forrester
Fountain
Fraser
Frelinghuysen
Friedel
Fulton, Pa.
Fulton, Tenn.
Fuqua
Gallagher
Garmatz
Gary
Gavin
Giaimo
Gibbons
Gilbert
Gill
Glenn
Goodell
Goodling
Grabowski
Grant
Green, Oreg.
Green, Pa.
Griffiths
Grover
Gubser
Gurney
Hagan, Ga.
Hagen, Calif.
Haley
Halleck
Halpern
Hanna
Hansen
Harding
Hardy
Harris
Harrison
Harsha
Harvey, Ind.
Harvey, Mich.
Hawkins
Hays
Healey
Hébert
Hechler
Hemphill
Henderson
Herlong
Holifield
Holland
Horton
Huddleston
Hull
Ichord
Jarman
Jennings
Joelson
Johnson, Wis.
Jonas
Jones, Ala.
Karsten
Karth
Kastenmeier
Keith
Kelly
Keogh
Kilgore
King, Calif.
Kirwan
Kluczynski
Kornegay
Kunkel
Kyl
Landrum
Lankford
Latta
Leggett
Lennon
Lesinski
Lindsay
Lipscomb
Lloyd
Long, La.
Long, Md.
McClory
McCulloch
McDade
McDowell
McFall
McIntire
McLoskey
McMillan
MacGregor
Madden
Mahon
Mailliard
Marsh
Martin, Mass.
Mathias
Matsunaga
Matthews
May
Meader
Miller, Calif.
Milliken
Mills
Minish
Monagan
Montoya
Moore
Moorhead
Morgan
Morris
Morrison
Morse
Mosher
Moss
Multer
Murphy, Ill.
Murphy, N.Y.
Murray
Natcher
Norblad
O'Brien, N.Y.
O'Hara, Ill.
O'Hara, Mich.
Olsen, Mont.
Olson, Minn.
O'Neill
Osmers
Ostertag
Passman
Patman
Patten
Pelly
Pepper
Perkins
Philbin
Pike
Pilcher
Pirnie
Poff
Pool
Powell
Pucinski
Purcell
Quie
Quillen
Randall
Reid, Ill.
Reid, N.Y.
Reuss
Rhodes, Pa.
Riehlman
Rivers, Alaska
Rivers, S.C.
Roberts, Ala.
Roberts, Tex.
Rodino
Rogers, Colo.
Rogers, Fla.
Rogers, Tex.
Rooney
Roosevelt
Rosenthal
Rostenkowski
Roudebush
Roush
Roybal
Rumsfeld
Ryan, Mich.
Ryan, N.Y.
St. George
St Germain
St. Onge
Schneebeli
Schweiker
Schwengel
Secrest
Selden
Senner
Shelley
Shipley
Shriver
Sibal
Sickles
Sikes
Sisk
Slack
Snyder
Springer
Staebler
Staggers
Steed
Stephens
Stinson
Stratton
Stubblefield
Sullivan
Taft
Talcott
Taylor
Teague, Calif.
Teague, Tex.
Thomas
Thompson, N.J.
Thompson, Tex.
Toll
Tollefson
Tuck
Tupper
Tuten
Udall
Ullman
Van Deerlin
Vanik
Van Pelt
Waggonner
Wallhauser
Watson
Watts
Weaver
Weltner
Westland
Whalley
White
Whitener
Wickersham
Widnall
Williams
Willis
Wilson, Bob
Wilson, Charles H.
Wright
Wydler
Young
Zablocki

NAYS—57

Abele
Arends
Ashbrook
Beermann
Berry
Betts
Bow
Brown, Ohio
Byrnes, Wis.
Clausen, Don H.
Collier
Cunningham
Curtis
Derwinski
Devine
Dole
Findley
Gathings
Gross
Hall
Hoeven
Hoffman
Horan
Hosmer
Hutchinson
Jensen
Johansen
Kilburn
King, N.Y.
Knox
Laird
Langen
Martin, Calif.
Martin, Nebr.
Michel
Minshall
Morton
Nelsen
O'Konski
Pillion
Reifel
Rhodes, Ariz.
Rich
Saylor
Schadeberg
Schenck
Short
Siler
Skubitz
Smith, Calif.
Smith, Va.
Thomson, Wis.
Utt
Wharton
Wilson, Ind.
Wyman
Younger

NOT VOTING—40

Bass
Battin
Blatnik
Brotzman
Buckley
Colmer
Cramer
Davis, Tenn.
Dent
Dingell
Everett
Evins
Fino
Flynt
Gonzalez
Gray
Griffin
Johnson, Calif.
Jones, Mo.
Kee
Libonati
Macdonald
Miller, N.Y.
Nedzi
Nix
O'Brien, Ill.
Poage
Price
Rains
Robison
Scott
Sheppard
Smith, Iowa
Stafford
Thompson, La.
Thornberry
Trimble
Vinson
Whitten
Winstead

So the bill was passed.

The Clerk announced the following pairs:

Mr. Macdonald with Mr. Miller of New York.
Mr. Blatnik with Mr. Griffin.
Mr. Vinson with Mr. Cramer.
Mr. Trimble with Mr. Battin.
Mr. Dent with Mr. Brotzman.
Mr. Libonati with Mr. Stafford.
Mr. Johnson of California with Mr. Fino.
Mr. Buckley with Mr. Robison.
Mr. Dingell with Mr. Nix.
Mr. Nedzi with Mr. Price.
Mr. Sheppard with Mr. Scott.
Mr. Gray with Mr. Gonzalez.
Mr. O'Brien of Illinois with Mr. Evins.
Mr. Thompson of Louisiana with Mr. Colmer.
Mr. Bass with Mr. Everett.
Mr. Rains with Mr. Whitten.
Mr. Davis of Tennessee with Mr. Smith of Iowa.
Mr. Winstead with Mr. Flynt.

Messrs. JOHANSEN and HUTCHINSON changed their vote from "yea" to "nay."

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

GENERAL LEAVE TO EXTEND REMARKS

Mr. MILLER of California. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to extend their remarks in the RECORD on the bill just passed, H.R. 7500.

The SPEAKER. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. HECHLER. Mr. Speaker, although I am very pleased that this bill has been passed by such an overwhelming majority, I deplore the fact that the bill makes such deep cuts in the recommendations of the committee for NASA support of university grants. The gentleman from Indiana [Mr. ROUDEBUSH] very properly pointed out that his amendment only retained the program at last year's level, but I vigorously dispute his contentions concerning the effect of such a reduction. The gentleman from Indiana would have this valuable program stand still at a time when we are trying to surge forward in the space effort. If we stand still in providing talent for the future, how can America hope to maintain future leadership in space?

I have the greatest admiration and sympathy for the gentleman from Indiana [Mr. ROUDEBUSH] and the gentleman from Kentucky [Mr. SNYDER] in the attacks which they made on certain silly sounding projects sponsored by NASA. The New York Herald Tribune and other newspapers deserve great credit for bringing to light these unfortunate projects. I have no doubt that much good has emerged in the past from studies which sounded a little stupid when they started. I have no doubt that some scientific justification could be mustered to support some of these studies. But for the life of me I cannot figure out why these ridiculous sounding

studies cannot be financed by universities, private foundations, or individuals outside the Government.

The space program is too vital to America's future to be hurt so much by those who administer it. The blame for this situation lies right on NASA's doorstep. At a time when the need is so desperate for training the scientists and engineers needed to carry on the space program in future years, NASA is really hurting that vital effort by using taxpayers' money for a few questionable projects which are difficult if not impossible to defend. You can scarcely blame some Members of Congress for getting stampeded when it turns out that Government funds are being used for studies which are on the face ridiculous.

What NASA really ought to do is to detail one of its staff from West Virginia to go through these projects and throw out the silly ones. All this needs is a down-to-earth person with a sense of humor. We may not have many NASA contracts in West Virginia, but we sure know how to pick a few rotten apples out of a barrel.

COMMITTEE ON BANKING AND CURRENCY

Mr. PATMAN. Mr. Speaker, I ask unanimous consent that the Committee on Banking and Currency may have until midnight Saturday to file a report on the bill S. 1163.

The SPEAKER. Is there objection to the request of the gentleman from Texas?

There was no objection.

STRENGTHENING AND IMPROVING THE QUALITY OF VOCATIONAL EDUCATION

Mr. SISK, from the Committee on Rules, reported the following privileged resolution (H. Res. 469, Rept. No. 632), which was referred to the House Calendar and ordered to be printed:

Resolved, That upon the adoption of this resolution, it shall be in order to move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 4955) to strengthen and improve the quality of vocational education and to expand the vocational education opportunities in the Nation. After general debate, which shall be confined to the bill and shall continue not to exceed three hours, to be equally divided and controlled by the chairman and ranking minority member of the Committee on Education and Labor, the bill shall be read for amendment under the five-minute rule. It shall be in order to consider the substitute amendment recommended by the Committee on Education and Labor now in the bill, and such substitute for the purpose of amendment shall be considered under the five-minute rule as an original bill. At the conclusion of such consideration the Committee shall rise and report the bill to the House with such amendments as may have been adopted, and any Member may demand a separate vote in the House on any of the amendments adopted in the Committee of the Whole to the bill or committee substitute. The previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit with or without instructions.

PETROLEUM STUDY COMMITTEE REPORT

Mr. FOREMAN. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. FOREMAN. Mr. Speaker, I have requested a 2 hour special order for next Tuesday for the purpose of a bipartisan discussion of a Petroleum Study Committee report to the President. This study, or report, on the petroleum industry was submitted to the President early in September 1962, but was not made public until last month.

This study was submitted on behalf of the Departments of State, Treasury, Defense, Justice, Commerce, Labor, and Interior. It reveals the thinking of those in Government whose philosophy would lead to complete control of the petroleum industry. The conclusion and recommendations of this study group are quite misleading and dangerous indeed. They constitute an open invitation to paralyzing Government controls and threaten the liquidation of the competitive oil and gas industry.

Domestic oil prices are low, not high, by any standard. During the period of import controls, prices have been reduced. State conservation programs and percentage depletion have resulted in more oil and gas at lower prices to the consuming public. During the time we have had an import control program, crude oil prices have declined 3.2 percent while prices on other commodities, excluding farm products and foods, increased 1.6 percent.

The relatively low price at which oil is presently sold may also be demonstrated by the fact that crude oil today sells for less than 7 cents per gallon and is the cheapest liquid bought and sold in our economy. Because of this low cost some 2,500 petroleum products are available at prices within the means of all Americans. A gallon of gasoline, for example, not including taxes, costs less than two cups of coffee, about half as much as a gallon of distilled water and one-fifth as much as a gallon of milk.

Mr. Speaker, additional Federal controls cannot assure national security as to oil or adequate supplies at low prices for the consuming public. It is my belief—and apparently the belief of a great majority of this Congress—that the highest national interest is served by maintaining a healthy dynamic oil industry. We cannot accomplish this through greater control and Federal regulation of this vital industry. I invite my colleagues to join a group of us in this very important bipartisan discussion next Tuesday.

NUCLEAR TEST BAN

Mr. ROGERS of Florida. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from Florida?

There was no objection.

Mr. ROGERS of Florida. Mr. Speaker, every year since coming to the Congress it has been my practice to submit a questionnaire to the people of the Sixth District of Florida asking their views on matters of national importance.

This year over 52,047 people responded to the poll. I believe this to be the largest return to a congressional poll in the country. Because of the size and makeup of the district, it reflects a good cross section of American opinion.

Florida's Sixth District has a population now estimated at 800,000. During the period 1950–60 the largest county grew 297.9 percent, the second largest 98 percent. This growth indicates that residents have come from all over the Nation and their opinions reflect to great extent those views which were acquired in other areas. Southern Florida is therefore all-American in origin and background.

An adequate sampling, then, of the residents of this district is most significant—52,047 represents 10 percent of the estimated adult population, considerably beyond the standard for most opinion polls.

Tabulation has been completed on the question, "Do you believe the United States should work for a nuclear test ban treaty with adequate controls?" and 81.6 responded yes, 13.4 responded no, 5 percent did not answer.

I know this result will be of interest to all, as it is a clear expression of the views of over 52,000 representative Americans.

The Sixth District of Florida is basically conservative. The 81.6 percent supporting a treaty with adequate controls are not "leftwingers," "ban-the-bomb" marchers, or even disarmament champions. They are average Americans, concerned about the nuclear arms race and its effects on our present generation and of generations yet unborn. They will support a test-ban treaty with adequate controls.

The Senate of the United States will have the responsibility to insure that the present treaty adequately provides for the security of our country. If in their wisdom they determine that it is such a treaty and give the President their advice and consent, the American people will support their decision.

PENNSYLVANIA VOTERS FOR AREA REDEVELOPMENT

Mr. RHODES of Pennsylvania. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

Mr. RHODES of Pennsylvania. Mr. Speaker, I again direct your attention to the special election held in the 15th District of Pennsylvania to fill the vacancy created by the death of our distinguished colleague, Francis Walter.

The outcome of this election was an overwhelming endorsement of President Kennedy and the administration program. The man who will replace our late colleague campaigned on the President's program and he campaigned as a "liberal, Kennedy Democrat."

Unlike other special elections where the turnout has been comparatively light, 60 percent of the voters turned out for this one. They elected the Democratic candidate by more than 6,500 votes.

An important point in the campaign of our new colleague was his contention that the area redevelopment program is good, that it has benefited Pennsylvania, that it should be expanded.

The Democratic candidate repeatedly stressed his belief in this effort to create more jobs, to provide needed public facilities, to combat automation, to diversify local economies.

The voters endorsed his position.

They endorsed area redevelopment.

Those of you who have said the administration program is lacking in popular support obviously have missed your mark.

I believe it is also important to note that the far right through its mouthpiece Human Events loudly acclaimed the merits of the Republican candidate. This election is indicative of the revulsion the American people feel toward this extremist movement whose leader has called democracy a fraud.

Area redevelopment is important to Pennsylvania's 15th Congressional District, and the voters knew it. The program has already creatd 8,000 jobs in Pennsylvania. It is of vital importance to the Sixth Pennsylvania District which I represent and where there are many coal region communities suffering economic distress.

Under the area redevelopment program studies have already begun in the 15th Congressional District. From these studies have come proposals for projects, projects which depend on the passage of the President's ARA proposals, which would mean 500 jobs to the people of the 15th District, 366 coming directly as the result of the ARA projects.

We can begin to realize the importance of these jobs to the district when we consider that any time you bring into a community an industry with 100 jobs, on the average you bring in 359 people, $710,000 of additional spending power, $229,000 in new bank deposits, $330,000 in spending in local stores and about 100 more autos.

And, of course, the well-being of the 15th Congressional District is closely tied to the well-being of the entire State of Pennsylvania.

The voters are aware of the importance of a program which could bring their State 47,641 new jobs—of which almost 29,000 would come directly from the programs of area redevelopment.

Mr. Speaker, too often, when recited on the floor, these figures emerge as just cold statistics. They are not cold statistics to those benefited by this program.

To the voters of Pennsylvania's 15th District—and other voters in my district and other districts in every State in the Union—they are new job opportunities that mean a chance for human beings to live in dignity and to lead lives that are useful to themselves, their families, and their community. They are new or expanding industries that mean survival, growth, progress to the communities in which these people live.

Mr. Speaker, the voters do not forget these things, even if many of us occasionally do, as we did by rejecting ARA extension last June 12.

The overwhelming turnout came despite the fact that a Republican Governor had deliberately scheduled the election in the midsummer to reduce the size of the vote and thereby allow his party's political apparatus to push through its candidate. They came to give a victory of more than 6,500 votes to the candidate who championed the programs that are so important to them, and they soundly repudiated the Republican candidate who, ignoring the needs of his district, opposed these programs.

Mr. Speaker, I congratulate the new Representative of Pennsylvania's 15th District, FRED ROONEY, on his resounding victory, and I look forward to working with him here.

I know that his voice will be heard frequently here. I only hope that the voice of his constituents, who spoke so clearly yesterday, will not be ignored by this body when we next consider the area redevelopment program.

APPOINTMENT OF POSTMASTERS BY POSTMASTER GENERAL IN COMPETITIVE CIVIL SERVICE

Mr. DUNCAN. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from Oregon?

There was no objection.

Mr. DUNCAN. Mr. Speaker, I have today introduced a bill which would provide for the appointment of postmasters by the Postmaster General in the competitive civil service and, accordingly, removes these offices from the field of congressional patronage. I am pleased to join with my distinguished colleague, Congresswoman GREEN, in proposing this change which, in my opinion, will strengthen the postal services, relieve Members of Congress from a time-consuming task for which we are ill-equipped and, further, will aid in strengthening the political organizations by eliminating what all too frequently is a most disruptive influence.

The postal service, as everyone knows, has become a most complex department of Government. As the Postmaster General recently said, it is not only a big business but it is one of the most important services rendered by Government to the American people. Good Government and sound business practices demand that the executive management of the many post offices be in the hands of experienced well-trained people appointed in an atmosphere free from the clash of partisan political considerations. Further demanded is the encouragement and reward for work well done to members of the postal service who will have an opportunity to advance on the basis of merit rather than on the winds of political change.

It may be said that more rather than less patronage would strengthen the political parties. I am sure that there is not a Member of Congress who has been concerned with these matters who would not agree that the intense competition for these positions engenders bitterness between party workers which results in far more disunity than it does harmony. Many officials of my own Democratic Party have so expressed themselves to me. The great Postmaster General and master politician Jim Farley's pithy comments on the subject of political patronage are too well known to bear repeating.

I introduce this proposal with no disrespect at all intended to those fine people from both political parties who have and are filling postmaster offices with distinction and devotion under the system in effect today. I am sure that many of them would agree that the series of recommendatory procedures commonly used—that is, a patronage committee makes a recommendation to a central committee which makes a recommendation to the Congressman who makes a recommendation to the Postmaster General who makes a recommendation to the President who makes an appointment to which, in most instances, the Senate must give its advice and consent—is unnecessarily complex and outmoded.

The savings in time alone of the many officials involved would justify the changes proposed, for time and redtape cost money. The Members of Congress will find that they have more time to better perform their job of representing their districts on local, national, and international issues on which we already have too little time to spend.

I respectfully commend this bill to the consideration of my colleagues in both parties.

DISTINGUISHED SCIENTISTS SUPPORT TEST-BAN TREATY

Mr. COHELAN. Mr. Speaker, I ask unanimous consent to address the House for 1 minute, to revise and extend my remarks, and to include a letter and an article.

The SPEAKER. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. COHELAN. Mr. Speaker, a very distinguished constituent of mine—the recipient of a Nobel Prize in physics—Prof. Owen Chamberlain of Berkeley and the University of California, has spoken out decisively, in a letter to the President of the United States, in support of the nuclear test-ban treaty initialed in Moscow last week. Professor Chamberlain is one of this country's most noted and knowledgeable experts in the field of nuclear physics. His letter carries a thoughtful but penetrating message which I believe our colleagues will find of importance.

Professor Chamberlain has been joined in his position by the Federation of American Scientists—a national, nonpartisan organization of more than 2,500 scientists concerned with the importance of science on national and international affairs. In a statement released yesterday, the federation stressed that:

Those of us who know from our work the capabilities of nuclear weapons and the risks of annihilation to which mankind is exposed believe that our Nation should make every reasonable effort to achieve a system of effective international disarmament under proper safeguards. We are greatly encouraged by the test ban agreement and believe it deserves prompt and overwhelming support from the American people.

The federation's paper provides a thoughtful and informed critique to the voices which have been raised in opposition to the limited test ban treaty. It is a critique which deserves the full attention of the Congress.

BERKELEY, CALIF., *July 25, 1963.*

President JOHN F. KENNEDY,
The White House,
Washington, D.C.

DEAR MR. PRESIDENT: It is my hope that you will very soon be putting before Congress a test ban agreement. I want you to know that I am an enthusiastic supporter of the administration in this matter.

Besides the substantive value of a test ban agreement in slowing the arms race, it has taken on great symbolic value. Ratification of the agreement will indicate to the world the acceptance by the great powers of their responsibility to maintain the present uneasy peace and to build for a firmer peace.

I am aware that you will be bombarded with literature from those who still say that the United States is behind in the arms race and cannot catch up under a test ban, or who say that the United States is ahead and could not maintain its lead under a test ban, or that the United States has urgent need for such and such weapon development that could not proceed under a test ban. Of course some of these statements are true, and, to a degree, will always be true. There will never be a time when we can expect to negotiate what are essentially military limitations on the Soviet Union without simultaneously accepting military limitations for ourselves. We must remember that complete freedom of action by all nations means continuation of the arms race. Only by tempering that freedom can we hope to improve the climate in this troubled world.

I am not familiar with the details of the contemplated new agreement, but I am familiar with the thinking within the administration that is behind such an agreement and I respect it highly.

At the present time there are only three nuclear powers of military significance. No one can foresee what the world might be like if there were many more strong nuclear powers, but it is clear that international tensions could be much worse than they are now. While few would argue that a test ban agreement between the United States and the Soviet Union would be sufficient to halt nuclear developments in other countries, it is clear that the test ban is a necessary first step toward discouraging other countries. In this sense it is a first step toward a more rational world order.

According to newspaper reports, the new agreement may be very similar to that proposed by both the present and the previous administrations in the United States. If the Soviet Union has finally become reasonable on this point, I hope we are prepared to capitalize on the situation.

I commend you, Mr. President, on your test ban policy and I hope the Congress can be counted on to give solid support.

Sincerely yours,

OWEN CHAMBERLAIN.

STATEMENT OF THE FEDERATION OF AMERICAN SCIENTISTS ON THE NUCLEAR TEST BAN TREATY

The three-power nuclear test ban agreement recently initialed in Moscow is strongly endorsed by the Federation of American Scientists. Our members who have participated in the development of nuclear weapons welcome this first step in the control of the nuclear arms race. The federation believes that this treaty is in the overall interest and that the risks involved are small compared with those in a world without such an agreement. We hope that this agreement may contribute to the reduction of international tensions and lead to more substantial arms control and disarmament agreements. Those of us who know from our work the capabilities of nuclear weapons and the risks of annihilation to which mankind is exposed believe that our Nation should make every reasonable effort to achieve a system of effective international disarmament under proper safeguards. We are greatly encouraged by the test ban agreement and believe it deserves prompt and overwhelming support from the American people as a demonstration to the world that our Nation plans to lead in the path away from nuclear destruction.

President Kennedy's speech last Friday night summarized eloquently the great risks of a continued arms spiral and the spread of nuclear weapons. We feel that the public may wish to have more information about possible risks of the nuclear test ban agreement, and we therefore discuss briefly here some relevant technical questions.

There is almost no chance that a nation could perform a series of militarily important nuclear test explosions without being detected. Techniques which have been developed during the past few years allow the detection and identification of nuclear explosions at all altitude ranges out to very great distances in space. For example, new electronic techniques for measuring perturbations in the ionosphere provide a very sensitive means of detecting explosions at upper altitudes. Methods of sampling for radioactivity, including both capture of actual debris on filters and observations of delayed gamma rays, provide a very sensitive method of identifying low-yield nuclear explosions.

It is conceivable that nuclear test explosions could be conducted so far out in space as to escape detection. However, present ground-based equipment can detect megaton tests taking place 1 million kilometers from the earth, and larger tests can be detected at correspondingly larger distances. If the United States decides to deploy satellite detection systems, then megaton tests could be detected at distances greater than the distance to the sun, out of several hundred million kilometers. Similarly, a megaton test behind the moon could be detected by delayed gamma radiation.

There are other reasons why tests at these distances must be considered unlikely. They would be difficult to conduct, would be very expensive, and might require months to elapse between the launch and the explosion. There is a high probability that the launchings would be noted and special efforts made to identify or to follow the space vehicles. The lack of experience of both the United States and the U.S.S.R. in conducting such experiments, would be another hindrance to such a program.

It has been suggested that the Soviet Union might attempt to shield multimegaton explosions in space by interposing shields containing lead dust between the explosion and the earth. Shields could reduce the detection range by perhaps a factor of 10. Such a shielded test in deep space could cost on the order of $100 million and, like all untried systems, would involve considerable risk of failure and detection. In view of the costs and uncertainties involved, it seems unlikely that the Soviet Union would consider it worthwhile to carry out such tests. Smaller tests could be far more easily conducted underground on earth.

Because of the great expense and difficulty of methods of concealing useful nuclear test explosions in the prohibited environments, any signatory nation that decided that it needed to conduct further tests would probably use the escape clause rather than embark on secret tests in violation of the treaty. Yet there is good reason to expect that none of the major nuclear nations will wish to end the agreement, for the continued ban on tests offers more advantages to the nuclear powers than a period of renewed testing.

If the Soviet Union should resume nuclear testing in the prohibited environments, our Nation would be prepared to conduct then such tests as required to maintain our position of nuclear deterrence. No decisive change in relative defense postures could be achieved by a sudden resumption of tests. Thus, since no major nuclear power can gain greatly by testing, we can hope that the test agreement will endure. Our Nation's weapon development laboratories can be maintained by a program of underground test explosions until satisfactory arrangements are found to ban these tests also.

It is sometimes asserted that further testing is necessary for the United States to develop a defense against missiles. In fact, nuclear weapons technology is only one of many fields that must be mastered if a missile defense is to be achieved, and it appears that these other areas represent far more significant barriers to the achievement of such a system than does the area of weapon technology. Thus, the problem of discriminating between an incoming missile warhead and various decoys that might be accompanying it is exceedingly difficult, as is the related problem of handling a large number of incoming vehicles at the same time. If these critical technical problems are solved, warheads for the antimissile missile can be developed underground. It is only measurements of radar blackout, warhead vulnerability, and actual live system tests that might require atmospheric testing. Measurements of blackout were made in recent tests in the Pacific. While atmospheric tests could assist in these developments, General Wheeler, Chief of Staff of the U.S. Army, stated in a television interview last weekend that the United States could now develop an antimissile system without further atmospheric nuclear explosions.

Similarly, the development of missile systems to penetrate any Soviet missile defense can proceed without atmospheric nuclear testing. Here is involved the development of smaller warheads and penetration aids such as new guidance, communication, decoy, and jamming techniques, and all these can proceed under the test ban agreement.

It has been suggested that the United States must develop a very high yield nuclear weapon to keep pace with the Soviet Union. On the contrary, there does not appear to be any justifiable military reason for the United States to have such a weapon. Our arsenal of nuclear weapons is already much more than adequate for any probable military targets. Smaller weapons, when used in sufficient quantity, provide a more reliable, more effective, and perhaps cheaper method of attacking targets than do a few high yield weapons. This is in fact the di-

rection in which the United States has been moving in its weapon development and for which its present delivery systems are designed. If the United States had a military requirement for such large yield weapons, it would have tested them during the past years when there have been many nuclear explosions.

There are firm indications that other nations will soon sign the test-ban agreement. All mankind is exposed to the dangers of radioactive contamination, and there will be great pressure from public opinion in all countries to urge governments to sign the agreement.

The Federation of American Scientists believes that it would be a national catastrophe if the pending test ban agreement were not ratified by the U.S. Senate. Ratification is clearly in our national interest. Moreover, peoples throughout the world would be deeply disappointed if our Nation should reject this chance to halt the dangers of radioactive contamination of the atmosphere, and to improve the chance for further agreements. Rejection by the Senate would have a disastrous effect on U.S. prestige. On the other hand, prompt ratification by a very substantial margin will demonstrate to all the world that the United States stands ready to join in further steps to control nuclear armaments and to reduce the worldwide dangers of the arms race.

WILDERNESS BILL

Mr. LINDSAY. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. LINDSAY. Mr. Speaker, I am proposing a wilderness bill in support of Mr. SAYLOR'S bill, H.R. 930, the many similar bills in the House of Representatives, and S. 4 in the Senate.

The wording of this bill incorporates 7 years' work of many contributors. The present bill does not depart from that work. The time has come to save wilderness areas, "not temporarily by administrative decision, but permanently by law." Our remaining wilderness is an impermanent asset requiring immediate protection.

This is not a complicated bill. It pinpoints responsibility for wilderness areas in the Congress, where by the Constitution the responsibility must be.

This means that the preservation of wilderness must be governed by law. It cannot be governed by the discretionary powers of administrators, subject as they are to the extraordinary pressures that have always existed in this area.

It is the constitutional duty of Congress to protect the Nation's wilderness. By article IV, section 3, clause 2:

> Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States.

The areas dealt with in this bill constitute "territory" within the meaning of this clause. But pending enactment of a wilderness bill, Congress is without an enabling law by which to observe this power. No detractor or obstructor of this bill ever goes so far as to deny the basic need for subjecting to the congressional control stipulated by the Constitution an activity which has become de facto a matter of executive discretion. The broad present limits of this discretion were set out by Mr. SAYLOR, addressing the House on June 27:

> In present circumstances, in the absence of positive congressional action regarding wilderness, a Secretary of Agriculture, if he wished to, could put 7.1 million acres of presently unclassified national forest land within wilderness areas that he could now establish. Or, if he wished to, he could abolish areas within which there are now preserved more than 14 million acres of wilderness. The fate of 21 million acres of wilderness is in his hands, in the absence of congressional directives.

But by section 3(h) of this bill, wilderness areas, once established as such according to the bill, can only be changed by law. This is a legal guarantee for wilderness areas.

Further, anyone considering this bill must consider this characteristic of wilderness: each year it erodes. Each year there is less of it. Once gone, it cannot be brought back. As time goes by, the opportunity to save the wilderness evaporates. To delay this subject indefinitely is to kill it.

Three points might be expressed in argument against the bill at the present time. These are:

First. There should be a review of primitive areas before they are declared protected by the wilderness bill. Find out what sort of resource we have here, before we "lock 'em up."

Second. Preserve existing uses—chiefly water resources development and mining—now allowed.

Third. There should be a requirement of affirmative action by Congress to approve change in wilderness areas.

The answer to the first point—that there should be a review of all primitive areas before they are declared wilderness—is contained in the bill. The bill says that wilderness, wild, and canoe areas shall be protected immediately. That is just as definite as though Pennsylvania, New York, and Maryland were named. These categories are known, mapped, and surveyed as such. Then the bill says the primitive areas will also be protected, but orders a 10-year review of primitive areas. About 6 million acres of the rough total of 14 million acres protected by this bill are primitive.

The second point—that existing uses should be preserved—is also in large measure contained in the bill. This bill is careful about reasonableness. The most important existing uses—mining and grazing rights—are preserved. Wilderness areas are protected against the acquisition of further rights.

The third point against the bill—that Congress should act affirmatively in the case of each proposed change in the wilderness area—is specious. Section 3(f) in the bill specifically reserves to Congress the right of veto over any change. The subsection advocates machinery which long inquiry has established as practical. This is a probable focus point of opposition to the bill, for it can be attacked here on the grounds of violation of the dignity of Congress, instead of the probable real basis of hostility to the bill, the desire not to sequester 14 million acres of useful property as sacrosanct wilderness. Any reasonable reading of section 3(f) will recognize that there is no violation of the supervisory powers of Congress therein.

It may be objected that the only wilderness I represent is Central Park. But the sparseness of wilderness in my district makes the need for it all the greater. That need is common to many of us Americans. It does not depend on means. Americans either find the time or good shape or inclination to go to the wilderness themselves, or remain in some way glad that our country still produces people who can live in a wilderness for a while, and glad that the country still keeps this wilderness preserved for any future American to turn to. Sooner or later those values are indispensable to us.

For these reasons, Mr. Speaker, I in my turn submit a wilderness bill to this Congress.

LEGISLATIVE PROGRAM FOR WEEK OF AUGUST 5

Mr. ARENDS. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Illinois?

There was no objection.

Mr. ARENDS. Mr. Speaker, I take this time to ask the majority leader if he will please inform the House of the program for next week.

Mr. ALBERT. Mr. Speaker, will the gentleman yield?

Mr. ARENDS. I yield to the gentleman.

Mr. ALBERT. Mr. Speaker, we have concluded the legislative business for this week. The program for next week is as follows: Monday, Consent Calendar. There are seven bills under suspension of the rules:

S. 874, to design, construct, and equip buildings required for the Bureau of the Mint.

S. 1652, amending the National Cultural Center Act.

H.R. 82, to amend the Merchant Marine Act, 1936, in order to provide for the reimbursement of certain vessel construction expenses.

H.R. 1157, to exclude cargo which is lumber from certain tariff filing requirements under the Shipping Act, 1916.

S. 1194, to remove the percentage limitations on retirement of enlisted men of the Coast Guard.

H.R. 5623, to amend the provisions of title 14, United States Code, relating to the appointment, promotion, separation, and retirement of officers of the Coast Guard.

H.R. 6997, to provide for a comprehensive, long-range, and coordinated national program in oceanography.

On Tuesday, Wednesday, and Thursday we have the Private Calendar and H.R. 4955, the Vocational Educational Act of 1963, on which there is an open rule with 3 hours of debate.

Next we have H.R. 7824, to continue for the period ending November 30, 1963, the existing temporary increase in the public debt limit set forth in section 21 of the Second Liberty Bond Act.

This announcement, of course, is made subject to the general reservation that conference reports may be brought up at any time and any further program may be announced later.

ADJOURNMENT TO MONDAY, AUGUST 5

Mr. ALBERT. Mr. Speaker, I ask unanimous consent that when the House adjourns today it adjourn to meet on Monday next.

The SPEAKER. Is there objection to the request of the gentleman from Oklahoma?

There was no objection.

DISPENSING WITH CALENDAR WEDNESDAY BUSINESS

Mr. ALBERT. Mr. Speaker, I ask unanimous consent that the business in order on Calendar Wednesday next week may be dispensed with.

The SPEAKER. Is there objection to the request of the gentleman from Oklahoma?

There was no objection.

THE SOURCES OF A SO-CALLED CUBAN EXPERT, OR WHAT DO WE MEAN BY CONFIRMATION?

Mr. STRATTON. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. STRATTON. Mr. Speaker, on July 16, 1963, in the CONGRESSIONAL RECORD for that date on page 12708, I had occasion to bring to the attention of the House a published report to the effect that a certain well-known self-styled expert on Cuba in another body actually did not have the special, inside mysterious intelligence information he has tried to suggest he had, but instead had gotten his information from newspaper stories which had already been in print before he spoke to newspapers not regularly read in Washington.

This report was made in a syndicated column which appeared in the New York Herald Tribune of July 12, 1963, by Rowland Evans and Robert Novak. I challenged that Cuban expert in the other body either to institute suit for libel against these two reporters or else apologize to the American people and to the Congress of the United States.

To date that Cuban expert has not sued, he has not apologized, but he also has been careful not specifically and unequivocally to deny the published report.

Mr. Speaker, since reading that report I have done some research of my own on the speeches of that expert, and I have compared them with certain newspaper reports. I think Members may be interested in the result of this research.

Of course there has been a lot of interest in the sources of this expert's information.

From the outset the sources of the information out of which his charges arose have been surrounded with much secrecy. On "Meet the Press" on May 12, 1963, the Senator said:

> All of the information that I have received and have ever used * * * has come from either one of two sources: (1) Government sources, or (2) other sources later confirmed by official Government sources, and most of it was directly from official Government sources.

Again on June 25, 1963, an editorial in the Binghamton Sun-Bulletin based on an interview with the junior Senator from New York contained the following:

> We asked where he had gotten the information last year. It came, he said, mostly from middle and lower level officials within the Government who were somehow unable to get their intelligence reports across to the high-level decisionmakers in the administration. A small amount of information—perhaps 5 percent—came from Cuban exiles, and the rest from American officials.

On the "Today" television show on September 4, 1962, Senator KEATING said:

> I certainly am not going to compromise my sources.

And again on "Meet the Press" on May 12, 1963, the Senator said:

> I would not reveal the names of the dedicated and patriotic people in government who have given me this information. I think that would be a disservice to them and would result in injury to fine, patriotic Americans.

Now on July 12, 1963, in a syndicated column which appeared in the New York Herald Tribune written by Rowland Evans and Robert Novak, the following statement was made about the junior Senator from New York:

> To this very day, the White House is dying to know the identify of KEATING'S Government leak.
>
> The answer is hilariously simple: He had no Government informants. At least no direct Government informants.
>
> KEATING'S chief source was a friendly newspaper correspondent who gave his remarkably reliable tips to KEATING after—not before—the information appeared in his own newspaper back home.

On July 16, 1963, I challenged the Senator either to sue these two columnists for libel or else to apologize to the Congress and the American people for this massive scissors and pastepot hoax over Cuba. The Senator has not apologized, but neither has he sued, and neither has he specifically denied the Evans and Novak charges.

A careful comparison between several key Keating speeches and some newspaper stories already in print before the Senator spoke will be enlightening.

Take, for example, the speech which Senator KEATING made in the Senate on Cuba on August 31, 1962. It appears in the RECORD for that date in volume 108, part 14, page 18359. This speech bears a number of very remarkable similarities to an article by Nat Finney which appeared on the front page of the Buffalo Evening News of 2 days earlier, August 29. For example, compare the following direct quotations:

> 1. Finney: "It was not until reports had accumulated about a landing August 2 and 3 at the former Marania docks at Mariel and could be checked and double checked that American intelligence had to accept as fact that Soviet troops were arriving in Cuba in force and that a new pattern had developed. * * * From 10 to 12 Soviet ships unloaded."
>
> KEATING. "I am reliably informed—when I say 'reliably informed,' I mean that has been checked out from five different sources, and I am certain I can state it as a fact—that between the dates of August 4 and August 15, 10 to 12 Soviet vessels anchored at the Marante dock area at Mariel.
>
> 2. Finney. "A high cinderblock wall had been built around the dock area in Mariel and the unloadings were handled under heavy security guard."
>
> KEATING. "The dock area previously had been surrounded by the construction of a high cinderblock wall."
>
> 3. Finney. "From 10 to 12 Soviet ships unloaded. They ranged from 6,000 to 10,000 tons burden. A contingent of 1,200 Soviet troops wearing fatigue uniforms disembarked from these ships and helped unload them under strict military discipline."
>
> KEATING. "The Soviet ships unloaded 1,200 troops. Troops is what I mean, not technicians. They were wearing Soviet fatigue uniforms."
>
> 4. Finney. "Soviet torpedo boats, suitable for the support of Central American insurrectos, were unloaded August 2 and 3 at Mariel, Cuba, and are now moored at LaBase, near Mariel."
>
> KEATING. "On August 13, five Soviet torpedo boats unloaded from Soviet ships, and are now moored at LaBase."
>
> 5. Finney. "A large Soviet convoy—reliably observed August 3 on the Carretera Central, between LaEsperanze and Jicotea, west of Santa Clara—contained a number of amphibious vehicles in addition to other military supplies. * * * This convoy was manned by Soviet military personnel and unmistakably military order."
>
> KEATING. "On August 3, a large convoy of military vehicles manned by Soviet personnel was observed on the highway in Las Villas Province. The convoy moved in military order and contained the first amphibious vehicles observed in Cuba; also jeeps, 6 by 6 trucks, and tracked trucks."
>
> (NOTE.—LaEsperanze, Jicotea, and Santa Clara are in Las Villas Province.)

The Senator was proud of his special contribution here. He said this:

> If the President has no evidence, I'm giving him the evidence this afternoon.

Four days after that speech which was, of course, a publicity sensation, the junior Senator appeared on the "Today" television show on September 4, 1962. See how closely his remarks there paralleled a front page story that had appeared in the New York Herald Tribune of just the day before, September 3, 1962, by Keith Morfett, of the London Daily Mail. Incidentally, these statements were made by the Senator as "new information which will document his contention":

> 6. Tribune: "I watched the Russians in two separate encampments."
>
> KEATING: "Many of them are located in two camps, just outside of Havana."
>
> 7. Tribune: "Many of the Russians at this encampment were billeted in what was the

former boys reformatory at Torrens, about 14 miles from Havana."

KEATING: "One group is billeted in a former boys' reformatory, 14 miles from Havana."

8. Tribune: "10 more Soviet vessels are at this moment Havana-bound on the high seas."

KEATING: There are 10 ships now on their way to Cuba, now on the high seas."

9. Tribune: "From Soviet ports also now Havana-bound are the East German *Westfalen*, the Norwegian *Tive Lillian*, the Greek cargo ship *Parnow*, the Italian *Airone*, the West German *Atlas*, and half a dozen ships flying the Liberian flag."

KEATING: "One East German, one Norwegian, one Italian, one Greek, one West German, and four to six ships carrying the Liberian flag."

10. Tribune: "A number of British vessels are on the way to Russian ports to begin the long haul to the Caribbean."

KEATING: "There are several British ships on their way from English ports to the Black Sea."

11. Tribune: "A continuous 'armada' of cargo ships is now stretched out between Russia's Black Sea ports and Cuba, carrying trucks, jeeps, machinery, food, guns, and ground-to-air missiles."

KEATING: "These ships that are now on the high seas, like the ones which have been landed there, carry trucks, jeeps, some food, guns, ground-to-air missiles, electronic equipment, and other material."

12. Tribune: "The contrast between the El Cano crowd and the next lot I looked at was so great that it became clear Cuba's Russians fall into two distinct categories. The El Cano Russians were recruited into 'labor battalions' rather like the British Army's Pioneer Corps."

KEATING: "These camps that are located that house these personnel near Havana are divided into—there are either two or three—one of them is a labor battalian. Now those are the types that we use in our Army."

13. Tribune: "Hundreds more military trucks, jeeps, and command vehicles were lined up five deep for quarter of a mile along the street called San Pedro on the Havana waterfront. These vehicles are all marked in Russian 'Goriskovsky Avtozavod' and are being moved quickly to all parts of the island."

KEATING: "Why they're a quarter of a mile along San Pedro Street in Havana. There are Russian military vehicles, with Russian markings on them, parked five deep, for a quarter of a mile, and those are taken all over the island, as needed."

Senator KEATING made another speech on this same subject in the CONGRESSIONAL RECORD, volume 108, part 17, page 22957. Oddly enough, the verbal parallels with another published newspaper story are remarkable. This time it was a story by Hal Hendrix which appeared on the front page of the Miami News 3 days earlier, on October 7, 1962. It was this speech, you will recall, which really established the Senator's reputation as a great intelligence expert. But notice the parallels with a story already in print in a newspaper not generally read in Washington:

14. Hendrix: "Construction has begun in Communist Cuba on at least a half dozen launching sites for intermediate range tactical missiles. U.S. intelligence authorities have advised the White House."

KEATING: "Mr. President, yesterday I spoke on the subject of Cuba. At that time I did not have fully confirmed the matter to which I shall address myself now. I now have it fully confirmed. * * * Construction has begun on at least a half dozen launching sites for intermediate range tactical missiles."

15. Hendrix: "Although official U.S. spokesmen have declined to disclose the intelligence reports, the Miami News has learned that experts have advised President Kennedy that the ground-to-ground missiles can be operational from inland Cuba within 6 months."

KEATING: "Intelligence authorities must have advised the President and top Government officials of this fact, and they must now have been told that ground-to-ground missiles can be operational from the island of Cuba within 6 months."

16. Hendrix: "From the type of construction underway it has been determined that the launching pads will have the capability of hurling rockets that could penetrate deeply into the United States in one direction and reach the Panama Canal Zone in the opposite direction."

KEATING: "The fact of the matter is, according to my reliable sources, that six launching sites are under construction—pads which will have the power to hurl rockets into the American heartland and as far as the Panama Canal Zone."

Of course, after that the U-2 plane came back with its picture on October 14, and the Cuban crisis was on. But the junior Senator from New York had tasted the heady wine of mysterious prophecy. He made another speech in the Senate on January 31, 1963—RECORD, page 1462—and his information, referred to as "continuing, absolutely confirmed and undeniable evidence" almost rocked the Nation. But, unknown in Washington, Nat Finney had written another page 1 story in the Buffalo Evening News 2 days earlier, on January 29. How remarkably similar to Mr. Finney's language is the Senator's:

17. Finney: "The second Soviet ship arrival, last Friday."

KEATING: "On Friday, January 25, a second large vessel arrived."

18. Finney: "Two large Soviet ships have docked in the island during the past 10 days and are unloading military cargo. * * * High security dockage facilities in Cuba are being used by the ship [the second ship]."

KEATING: "Under maximum security conditions, it [the second ship] unloaded a cargo of armaments."

19. Finney: "This route is not specified by intelligence sources, but it is described as a 'high-security route' that can be followed with the least exposure of secret cargo to free world espionage."

KEATING: "The route followed by these two ships is generally termed a 'maximum security route,' a passage traveled by the Soviets through areas where the United States is least able to maintain adequate surveillance of ships' contents."

20. Finney: "The route followed by this ship in reaching Cuba is the same that was used by Soviet ships that carried the first medium-range ballistic missiles brought to the island during the final weeks of September 1962."

KEATING: "It [the route] is also, ominously enough, the identical route followed last summer by the first of the Soviet vessels carrying medium-range, ground-to-ground missiles into Cuba."

21. Finney: "The event of this ship's arrival has been made more ominous by the fact that Soviet forces on the island have been observed doing routine maintenance work on the MRBM sites from which the Soviets removed their missiles while close U.S. aerial surveillance of the island continued."

KEATING: "There is continuing, absolutely confirmed and undeniable evidence that the Soviets are maintaining and guarding the medium-range sites they had previously constructed in Cuba. There has been no Soviet move to dismantle these concrete sites or withdraw the launching bases."

And so it rather looks as though Nat Finney of the Buffalo Evening News is the "friendly newsman, who works for an Eastern newspaper not generally read in Washington" to whom Messrs. Evans and Novak referred. In fact a column by Kenneth Crawford in the February 18, 1963 issue of Newsweek, almost 5 months before the Evans and Novak column appeared, says this:

Just where KEATING got his information is still his secret. However, it is a fact that a series of dispatches by Nat Finney, Washington correspondent for the Buffalo Evening News, closely paralleled and anticipated KEATING's early pronouncements, which is suggestive of his source.

In any event, the Keating speeches certainly bore an amazing similarity to the page one news stories already in print before he spoke. Such deadly parallels in so many instances would be virtually impossible for any fairminded observer to dismiss as mere coincidence. Indeed they do amount to solid proof of the earlier Evans and Novak charges.

Finally, we have the claim by the Senator that, whatever his sources might have been, all his information had been confirmed by official Government sources. This claim to official Government confirmation for his newspaper cribbing is of course absurd. The plain fact is that all of the Senator's major alleged inside private intelligence about Cuba has now been refuted by all the solid evidence available, including the unanimous report of the Senate Preparedness Subcommittee, which the junior Senator from New York has tried to suggest really supports his charges.

The Senator really made three sensational charges. The first, on October 10, was that the Russians had long-range missiles in Cuba.

However, the Senate Preparedness Subcommittee report on Cuban intelligence, unanimously approved on May 9, 1963, says flatly on page 7:

None of these reports [of long-range missiles in Cuba] were confirmed prior to October 14, 1962.

So the Senator obviously cannot have had the substance of his October 10 speech confirmed by the Government.

The second sensational charge was the one made on January 31, 1963, and described as "absolutely confirmed and undeniable evidence," to the effect that the concrete Cuban long-range missile sites had not been dismantled and were still being maintained. This charge was completely refuted on nationwide television by Secretary McNamara on February 6, 1963, and was not even considered worthy of examination by the Senate subcommittee. Obviously, it, too, was never confirmed by official Government sources, and once again the Senator is wrong.

Third is the charge made on April 18, 1963, before the American Society of Newspaper Editors:

Several thousand more [Russians] have arrived [in Cuba] * * * there is no reliable evidence whatsoever of a decline in Soviet military strength or capability since those first withdrawals in November.

However, once again, the unanimous Senate subcommittee report, states on page 3:

A net of 4,000 to 5,000 additional have been withdrawn since the first of the year, our intelligence people say.

They make no reference to any substantial Russian troops going back into Cuba, certainly not by the "thousands." So once again, the Senator obviously could not have had his information confirmed by official Government sources when, as the Senate report shows, it is so wrong.

Mr. Speaker, I believe the people of America are entitled either to an apology or to an explanation. How long must we wait?

THE IMMIGRATION LAWS

Mr. ROOSEVELT. Mr. Speaker, I ask unanimous consent to revise and extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. ROOSEVELT. Mr. Speaker, the President of the United States has urgently called upon the Congress to implement long overdue and sorely needed changes in our immigration laws.

Five years ago the then Senator Kennedy wrote a pamphlet entitled "A Nation of Immigrants," pointing out at that time that the post-World War I immigration law was discriminatory because of its national origins quota system, whose only test was whether or not an immigrant was born in the right place. Now as President he has offered legislation, whose most important proposal is the gradual elimination of the "national origins" system for selecting immigrants.

It seems almost inconceivable to me that our present annual quotas are based not upon the national origins of our population of 1950 or even 1960, which I might add, is an odious concept at any time for determining who should come to the United States, but upon the national origins of our population in 1920.

Because of the composition of the population at that time, favor was given to immigrants from northern Europe while limiting immigration from southern and eastern Europe and from other parts of the world. Forty-three years later we are still following a system of immigration based on a 1920 census. Why this should be at a time in world history when it is so incumbent upon us to be an example to the world of a nation which is doing its best to be fair, equitable, and nondiscriminatory, continues to elude me.

And as far as I can see, it eludes many many thousands of other Americans too, not least among them our own esteemed President, who has clearly stated in his message to Congress:

The use of a national origins system is without basis in either logic or reason. It neither satisfies a national need nor accomplishes an international purpose. In an age of interdependence among nations such a system is an anachronism, for it discriminates among applicants for admission in the United States on the basis of accident of birth.

I could not agree more completely.

Mr. Speaker, today, in another area of great concern to us, among the Members of Congress and the people across the Nation, are many of us who are attempting to correct the intolerable and longstanding conditions of discrimination against the Negro in this country. Through the introduction of strong civil rights legislation, including equal employment opportunities legislation, we are attempting to put an end to a deplorable situation that has racked many a conscience and kind heart, and which on a very practical political level, has always lowered the prestige of the United States in the eyes of the rest of the world.

Now, I say, it is time to put an end to another deplorable and discriminatory situation, that of inequitable and outmoded immigration procedures. Because we have been basing our immigration on this 1920 census, we find ourselves denying admission to this country of so many persons, especially of Greek, Italian, Polish and Asian origin. These nations for many years have had way oversubscribed quotas and backlogs up to 100,000 persons trying to gain entrance to the United States.

Mr. Speaker, there are those among us who might fear that the passage of these new immigration laws would result in an indiscriminate flood of immigrants to this country. This is not so. All it would mean is that we would probably fill our present quota of around 157,000 with the addition of a possible few thousand more, and that we would be in a position to allow persons from the countries I have mentioned as well as others, to make use of the unused quota allotments by such countries, for example, as Britain and Ireland, who for years have not filled their immigration quotas.

To me, this is the very least we can do to fulfill our promise of long ago and to justify to ourselves and to the rest of the world the eloquent message of welcome and hope, written on the base of the Statue of Liberty, which greets so many of those who come to America for the first time.

In offering others an opportunity to live in America we are also offering many of our own American citizens the chance to be reunited with many of their relatives of other countries, from whom they have long been separated.

With the passage of new immigration laws, we could end the kind of situation in which an American citizen of Greek origin must wait a year and a half to be reunited with his mother and father, or his brothers and sisters, or as happened in my own congressional district, an American citizen of Turkish origin faces an indefinite waiting period to have her sister join her in the United States.

We have another reason for opening our gates a little wider, a reason that has long been part of the American tradition. This great country was built, as we all know, by immigrants and is today the country of their children and their children's children, whether their parents originally came in the 18th century or the 20th century. We are a melting pot of many people from many lands. What is it we have to fear by adding a little more fresh variety to the melting pot?

My esteemed colleague, the gentleman from New York, the Honorable EMANUEL CELLER, who as the longstanding chairman of the Judiciary Committee has had years and years of experience with the immigration problem has expressed his views in no uncertain terms in a report he recently released to the American people, and I quote:

The system of national origins has, over the years shown itself to be completely unworkable and unrealistic.

For humanitarian reasons, for emergency purposes, and under pressure of world events, there has been, through a variety of acts of Congress, superimposed upon that principle, a structure of special laws, special exceptions, special private laws, and a contrived technique of seeking and finding loopholes in the law until the law itself has become a maze of contradictions. It is my considered opinion that the President's bill offers a broad and firm basis for a long overdue revision of our policies and practices in this most important area of domestic and foreign human relations.

I am in complete accord with the gentleman from New York [Mr. CELLER], and I would like to strongly urge my colleagues to join with me in supporting with as little delay as possible this new and far-reaching immigration proposal of the President's, introduced by the gentleman from New York [Mr. CELLER], as H.R. 7700. I have today introduced a similar bill to indicate my full support of the bill of the gentleman from New York [Mr. CELLER].

REPORT ON ILO CONVENTION

Mr. ROOSEVELT. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. ROOSEVELT. Mr. Speaker, I take this time merely to say that on Monday next, under my unanimous consent request, I intend to make a report to the House on the ILO Convention which I had the honor of attending, representing the House of Representatives.

NORTHEAST AIRLINES

Mr. SHRIVER. Mr. Speaker, I ask unanimous consent that the gentleman from New Hampshire [Mr. CLEVELAND] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. CLEVELAND. Mr. Speaker, twice before this week, I called the attention of my colleagues to the recent 3-to-2 CAB decision which has decapitated Northeast Airlines by taking away its

New York-Miami run. I have pointed out, during the course of my remarks, the shocking fact that the decision will reduce competition by Government edict and graciously offers to the bleeding corpse a tranquilizing but unnecessary Government subsidy. This is waste at its worse. It has always been my understanding regulatory agencies are meant to control competition but not to obliterate it.

As the decision is scrutinized further, Mr. Speaker, its enormity becomes more apparent. This decision is based upon a finding that there is no present need for a third carrier in the New York-Florida run. As I pointed out yesterday, there are at least two comparable routes that support four airlines and twelve that support three. Removing Northeast will leave this important, and one of the most heavily traveled routes, in the possession of just two airlines, Eastern and National.

Northeast in a period of 7 years increased its share of the market to 60 percent in competition with Eastern and National, at the same time carrying the burden of the profitless New England hauls. If there are only going to be two airlines on this run, why is the most successful the one to be kicked out? Why not take Eastern or National out of the picture? There is an aroma prevading this decision that is cause for concern.

Of the three airlines handling the east coast passenger service, Northeast carried 60.2 percent of the Boston-Miami traffic—35,544 passengers—in the first quarter of 1963 and over half of this business in 1962. It also carried a majority—61.9 percent—of the passengers flying from Boston to Philadelphia and 52.4 percent of the Boston-to-Washington trade.

Compare this, Mr. Speaker, to the number of passengers served on those runs by one of the two airlines which the CAB considers more capable of competing—National Airlines. Only 47 round-trip passengers have been carried from Boston to Miami by that company in 1963—one-tenth of 1 percent of the total. National carried only 1 percent of the passengers between Boston and Philadelphia. Yet the CAB questions whether Northeast can compete with its rivals.

In April a CAB examiner recommended that Northeast be denied the Florida franchise, stating that the Hughes Tool Co., which had controlling interest in the airline, was not interested enough. Mr. Speaker, I do not know how much the CAB considers enough, but the Hughes Tool Co. has put $31,400,000 into rehabilitating the finances of Northeast Airlines. On the very day that the CAB dealt the deathblow to Northeast, it approved another $1 million loan from Hughes. The two members of the CAB who delivered the dissenting opinion pointed out that the Hughes investments more than proves their interest and ability.

Mr. Speaker, if the route's two major airlines cannot compete successfully with Northeast in the market, why should the company which has just won its struggle to overcome acute financial difficulties, caused in part by the weight of the New England short-haul runs, be grounded? For a regulatory agency to thus penalize success is as unfair as it is unwise. Eastern and National of course are delighted as I pointed out yesterday. Laughing heirs always are.

Mr. Speaker, as I mentioned yesterday, a CAB examiner recently turned down the proposed merger betwen Eastern and American. At that time, it was suggested that this type of merger would reduce competition. CAB now takes away a route suggesting that leaving it with Northeast has created too much competition. This flagrant inconsistency is appalling; there must be more to this than meets the eye. I think the decision and its effect on New England and healthy competition should be most carefully examined by the appropriate committees of this House and by the Department of Justice.

THE PEACE-LOVING REDS

Mr. SHRIVER. Mr. Speaker, I ask unanimous consent that the gentleman from Texas [Mr. ALGER] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. ALGER. Mr. Speaker, I ask my colleagues to pause in the midst of the administration-sponsored victory dance because of the test-ban treaty with the Soviet Union, to consider what the peace-loving Reds are still doing to wreck our country. President Kennedy and Averell Harriman seem to be readying us for the nonaggression pact Mr. Khrushchev is so anxious to get as his next step in disarming and weakening the United States for the final Communist takeover, but they have either forgotten or simply will not admit the Communist subversion and agitation constantly going on in America as part of the Communist conspiracy directed from Moscow.

Two articles from the August 3 issue of Human Events, serve to remind us the Reds have changed neither their color nor their program to destroy us. The first, "Reds Want Negro Unrest," by Holmes Alexander, should serve to remind us that, in spite of denials by the Attorney General, Bobby Kennedy, the Communists have a stake in creating racial tensions here and it will be a grave mistake to underestimate what Red agents may do on August 28 when the Negro march on Washington may easily be turned into a tragedy of death and destruction.

The second article, by Fulton Lewis, Jr., outlines the Communist program to seize the minds of American youth as "Red Recruiters Concentrate on Youth."

The articles follow:

REDS WANT NEGRO UNREST

(By Holmes Alexander)

On January 16, 1958, when Director J. Edgar Hoover was asking a House Appropriations Subcommittee for funds to run the FBI during the next fiscal year, he said:

"The Negro situation is also being exploited fully and continuously by Communists on a national scale. Current programs include intensified attempts to infiltrate Negro mass organizations. The party's objectives are not to aid the Negroes—but are designed to take advantage of all controversial issues on the race question so as to create unrest, dissension, and confusion in the minds of the American people."

Mass demonstrations by Negroes in the North and South, to be culminated with a huge march on Washington next month, were not in the news, as they are now, when Director Hoover gave this dispassionate, succinct, and informed statement of Communist intentions. Last week southern Governors Barnett, of Mississippi, and Wallace, of Alabama, flapped the Red flag in words much like Hoover's. But the Barnett-Wallace testimony before the Commerce Committee's civil rights hearings was too self-interested to be effective.

Another Red object—the Red herring of McCarthyism—came scurrying into the caucus room where McCarthy once performed. The subject of Communist complicity soon got lost amid pious horror of "smearing" the Negro race and its leaders. Somebody suggested that J. Edgar Hoover be summoned as a star witness on the subject, but Chairman WARREN MAGNUSON, Democrat, of Washington, was against it.

Fortunately, it is hardly necessary to call Hoover. A little page leafing through House appropriations hearings show that the FBI Director has several times asked Congress for money for the very purpose of investigating Communist incitation of the Negroes. On March 3, 1961:

"The sit-in demonstrations in the South were a made-to-order issue which the party fully exploited to further its ends."

By now the Director was giving names, places and dates. He mentioned James E. Jackson and Joseph North, "national Communist Party functionaries," who came around for the demonstrations at Richmond, Va., in February 1960. He quoted the Negro Communist, Ben Davis, "the party's national secretary," as stating in March 1960 that Negro demonstrations are the next best thing to "proletarian revolution."

Again, on January 24, 1962:

"Since its inception the Communist Party, U.S.A., has been alert to capitalize on every possible issue or event which could be used to exploit the American Negro in furtherance of party aims. In its efforts to influence the American Negro, the party attempts to infiltrate the legitimate Negro organizations for the purpose of stirring up racial prejudice and hatred. In this way, the party strikes a blow at our democratic form of government by attempting to influence public opinion throughout the world against the United States."

RED RECRUITERS CONCENTRATE ON YOUTH

(By Fulton Lewis, Jr.)

Under consideration in ruling circles of the Communist Party, U.S.A., is a proposal that party membership be extended to youngsters under 18 years of age.

It is only one plank in a proposed program designed to pump new blood into the party, according to J. Edgar Hoover, Director of the Federal Bureau of Investigation.

"The party's aggressiveness in the youth area is so great," Hoover recently told Congressmen, "that it is now considering for membership individuals who meet only some of the qualifications heretofore required."

Prior exposure to Marxist-Leninist teachings, for instance, is no longer required. All that is needed is an "interest" in the party.

Communist speakers have fanned out across the country, addressing youth groups and student claques in an attempt to recruit new members and to make communism "respectable."

There have been few efforts to combat the massive invasion of U.S. schools by Communist orators. Only in Ohio has the State

legislature acted to ban Communist speakers from State-supported schools. Such a bill was signed by Gov. James Rhodes 2 weeks ago.

G-man Hoover insists the Communist danger has not ebbed. He quotes party boss Gus Hall to the effect that 10,000 Americans are official members of the Communist Party while another 100,000 are "state-of-mind" members described as persons sympathetic to the party line and objectives. He says:

"The Communist Party, U.S.A., wields an influence and constitutes a security danger far out of proportion to its membership. It is organized to penetrate with its ideas and tactics almost every segment of our society. The party need not be nor does it want to be a large mass organization. It prefers to remain small, developing mass strength through front organizations it controls and directs in its own interest."

Under Hoover's direction, the FBI now has under investigation some 165 known or suspected Communist-front or Communist-infiltrated organizations.

Some of these groups are Communist-created. In many instances, however, the party urges its members to join and infiltrate legitimate nonsubversive organizations and gain control.

Communists infiltrated the New York branch of the Committee for a Sane Nuclear Policy, gaining considerable influence before they were exposed by a Senate subcommittee. The national organization then purged the New York chapter of all known Reds.

Communist Party members have joined Women Strike for Peace in droves. They have tried to infiltrate organizations working for civil rights, such as the NAACP and Southern Christian Leadership Conference.

ADMINISTRATION TURNS PLANNED SURPLUS INTO LARGE DEFICIT

Mr. SHRIVER. Mr. Speaker, I ask unanimous consent that the gentleman from Missouri [Mr. CURTIS] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. CURTIS. Mr. Speaker, July 17 President Kennedy announced that the final figures for the fiscal year ending June 30 showed an administrative budget deficit of $6.2 billion—or $2.6 billion less than estimated in January 1963. The administration cited increased sales of Government-owned financial assets, expenditure reductions, and increased Federal tax collections as the three primary reasons for reduction in the size of the deficit.

However, neither the Presidential statement nor the joint statement issued by Treasury Secretary Dillon and Budget Director Gordon the next day, made any mention of the original fiscal 1963 budget estimate made in January 1962. It should be recalled that at that time the administration predicted a 1963 budget surplus of $463 million. Contrasting the final results to the original estimates casts an entirely different light on the administration's fiscal performance over the past year.

I have had a table prepared comparing the original budget estimates with the final figures for fiscal 1963. I ask unanimous consent that this table be included in the RECORD at the conclusion of my remarks. The table shows that despite the administration's claim to have made "widespread" expenditure reductions, spending actually increased $53 million over the original estimate.

The major increases were in the Agriculture Department, which spent $1 billion more than originally estimated. Post Office expenditures increased by nearly a half a billion dollars. Interest on the public debt was $9.8 billion, $600 million more than estimated in January 1962.

It is interesting to note that military and space expenditures, which the administration generally cites as the primary reason for higher overall spending totals, were actually lower than originally estimated. This means that domestic spending—principally for agriculture—increased sharply over the year.

Also, the President's report emphasized increased tax collections. Although the amount of revenue collected during the second half of the year is in excess of January 1963 expectations, we should note that receipts for the entire year were $6.6 billion below the January 1962 estimate.

Mr. Speaker, the original January 1962 budget figures should be borne in mind when evaluating the administration's budgetary performance during the past year. On this basis, the administration turned a predicted surplus of half a billion dollars into a $6.2 billion deficit, and this would have been worse except for large sales of Government-owned financial assets.

Administrative budget, fiscal 1963, original January 1962 estimate compared with actual expenditures

[In millions]

	Original estimate	Actual	Actual as changed from original estimate
Receipts:			
Individual income tax	$49,300	$47,596	−$1,704
Corporation income tax	26,600	21,567	−5,033
Excise taxes	9,956	9,914	−42
Miscellaneous receipts	4,192	4,423	+231
All other receipts	3,645	3,371	−274
Subtotal	93,693	86,870	−6,823
Deduct interfund transactions	693	513	−180
Net receipts	93,000	86,357	−6,643
Expenditures by major agencies:			
Military and space agencies:			
Department of Defense, military	49,700	48,249	−1,451
Foreign assistance, military	1,400	1,711	+311
Atomic Energy Commission	2,880	2,758	−122
National Aeronautics and Space	2,400	2,552	+152
Total, military and space	56,380	55,270	−1,110
Civilian agencies (selected):			
Agriculture	6,709	7,763	+1,054
Commerce	815	667	−148
Health, Education, and Welfare	5,183	4,904	−279
Labor	386	253	−133
Post Office	261	755	+494
Treasury	10,431	11,024	+593
Housing and Home Finance Agency	1,383	400	−983
Veterans' Administration	5,285	5,173	−112
Total, all agencies	92,537	92,590	+53

WHAT IS WRONG WITH THE AREA REDEVELOPMENT PROGRAM?

Mr. SHRIVER. Mr. Speaker, I ask unanimous consent that the gentleman from New Jersey [Mr. WIDNALL] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. WIDNALL. Mr. Speaker, I have long been an advocate for legislation designed to aid the truly depressed areas with problems of chronic unemployment. I offered bills during the Eisenhower administration and sponsored the substitute bill when the Area Redevelopment Agency was created in 1961. The members of the minority in both the House Banking and Currency Committee and on the floor of this Chamber has consistently stated that the present depressed areas program does not accomplish and cannot accomplish its alleged goal. For this reason, I want to call the attention of my colleagues to a very pertinent editorial in today's Washington Post.

In tracing the unfortunate dilution of a good idea by political maneuvers, the Post observes:

First, the scope of the program was diluted by including under it a large number of rural counties, whose problems are essentially different.

Mr. Speaker, this has since been recognized implicitly by the new rural development program by the Department of Agriculture. The Post continues:

Next, the standards of admission were lowered, so that areas not clearly in distress got into the program. About 1,000 counties, one-third of the United States, with 36 million people, are now classed as in need of redevelopment. Of the total funds 60 percent are being assigned to rural counties.

This is the aid to underemployed areas part of the present law which would

have been eliminated under my alternative bill in 1961. According to the Post:

As a result, the program has been so diluted that no real impact can be made on the areas that need it most.

I am happy to see the press taking a look at the facts, and I am sure that any Member of this body doing the same can only come to a similar conclusion.

We have also heard a great deal, in testimony before the House Banking and Currency Committee on two separate occasions and also on the floor of the House, that the Area Redevolopment Administration is sorely in need of funds. The reason for this is, as the Post also points out, the inclusion of two times the number of appropriate areas under the loosely worded and even more loosely administered Area Redevelopment Act.

Unfortunately, we have not heard the last of the efforts to deposit the taxpayers' money down a mohole built by bad legislation, bureaucratic incompetence and political favoritism. Another attempt will be made in the near future. No doubt the proponents of the measure will tell this body, which has already voted the bill down once this year, that this is a new bill with amendments made to correct past errors. Glossed over will be the fact that the Senate version has even more errors than before which will be carried to a conference no matter what is done in the House. In point of fact, however, the Washington Post editorial makes no delineation between the two bills. The basic fallacies are still there, and will remain there until the present politically motivated approach to solving our Nation's depressed areas problem is junked and replaced with a bipartisan effort to find a reasonable and workable solution.

The Washington Post editorial of August 1, 1963, follows:

[From the Washington Post, Aug. 1, 1963]

AREA REDEVELOPMENT

The House Banking and Currency Committee has approved with cuts of some magnitude the area redevelopment bill. An earlier version failed to pass the House by a margin of five votes earlier in the session, but a similar measure has been passed by the Senate. Unfortunately, the fate of this bill, which has been sadly diluted in the logrolling process, appears to hinge upon the passage of a thoroughly reprehensible cotton subsidy measure.

The purpose of the area redevelopment program is to reduce pockets of unemployment that have come into being because industries have declined, or moved away, or automated severely. It is to help the "structurally" unemployed, who might not find jobs even if the economy should begin to boom. This is an attractive idea, and one would have little difficulty recommending the bill if the program had stuck to its original concept. But what has happened?

First, the scope of the program was diluted by including under it a large number of rural counties, whose problems are essentially different. This was done to get the southern vote behind it. Next, the standards of admission were lowered, so that areas not clearly in distress got into the program. About 1,000 counties, one-third of the United States, with 36 million people, are now classed as in need of redevelopment. Of the total funds, 60 percent are being assigned to rural counties. As a result, the program has been so diluted that no real impact can be made on the areas that need it most. As a further result, the ARA in 2 years has run through its original appropriation of $375 million, which should have carried it for 4 years. That is why it is now coming in for an added $456 million.

This is a classical case of logrolling, in which congressional acceptance of a modest amount of high priority expenditures has had to be purchased with a larger amount of low priority items. The process has reached the point where the low priority purposes have substantially diluted those of high priority, but it is not yet at an end. It is now reported that the passage of the bill through the House is to be linked informally with the cotton bill. The southern votes needed for the area redevelopment bill are to be obtained by a promise of northern votes for the bill dear to southern interests. The cotton bill is undesirable on several counts, its principal features being a subsidy to cotton mills of 25 percent of the cost of cotton, plus a further subsidy of 10 percent to keep the smallest and least efficient producers of cotton in operation.

The passage of the thoroughly objectionable cotton bill certainly would be too high a price to pay for an ARA bill that has already been freighted with damaging departures from the initial purpose.

ARA AND THE POTATO BUSINESS

Mr. SHRIVER. Mr. Speaker, I ask unanimous consent that the gentleman from Minnesota [Mr. LANGEN] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. LANGEN. Mr. Speaker, it occurs to me that the Area Redevelopment Administration could put some areas of my home State of Minnesota out of business if its present policy is not reversed.

Earlier this year I called your attention to an ARA effort, with the help of the Department of Agriculture, to raise sugarbeets in Cayuga County, N.Y., in direct competition with established growing areas such as our own Red River Valley of the North. Now we find ARA considering the possibility of setting up a potato processing plant in one section of Minnesota to compete with processing plants in the very same State—plants that are presently operating well below capacity and are in serious trouble financially.

There are similarities between this potato proposal and the sugarbeet fiasco. The Area Redevelopment Administration and the Agriculture Department want to grow beets in a New York county where they do not even know if beets can be raised profitably—and ARA is now considering processing potatoes in Grasston, Minn., located in an area where there is some doubt as to a sufficient supply of potatoes.

The cost of the project was listed at $2,270,000, with ARA furnishing $1,378,000 of the total.

For every job created by ARA projects such as these, a job would be eliminated in the Red River Valley area of Minnesota and North Dakota, where similar industries are already overexpanded.

The proposed plant at Grasston has created so much dissension that even the Democrats are criticizing it. The Democrats in Polk County, Minn., for instance, passed a resolution to protest any Federal aid for the plant.

The people of the Grasston area are to be praised for wanting to improve their economy. But I am sure that industries can be found that will not compete with existing industries already in trouble. You just cannot rob Peter to pay Paul, which is exactly what the Area Redevelopment Administration has attempted to do up to this point. We need a reevaluation of the whole ARA program so that taxpayer money will be used to help our people instead of hurt them.

COMMEMORATION OF THE 150TH ANNIVERSARY OF THE BATTLE OF FORT STEPHENSON

Mr. SHRIVER. Mr. Speaker, I ask unanimous consent that the gentleman from Ohio [Mr. MOSHER] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. MOSHER. Mr. Speaker, on this Saturday, August 3, 1963, the citizens of Fremont and Sandusky County, Ohio, will conclude 10 great days of celebration in commemoration of the 150th anniversary of the Battle of Fort Stephenson.

The four-county area I have the honor of representing in the U.S. Congress is very rich in history, but of all the noteworthy historical facts of which my district can boast, none is more significant than the Battle of Fort Stephenson.

In fact, of all the battles fought during the War of 1812, this battle, was perhaps the most significant.

I make such a statement, not because I lack appreciation for the many other important events of that war, but because the Battle of Fort Stephen was the first, really decisive victory for our young Republic in those desperate days. Had it not been for those 160 stubborn Americans, the ingenious and courageous planning of their 21-year-old leader, George Croghan, not to mention the skillful use of the now famous little "six-pounder" cannon, "Old Betsy," the course of our United States could have been vastly altered.

That famous victory at Fort Stephenson was truly the turning point of the war. It freed a young America from the longtime harassment of British and Indian forces in the Northwest Territory. It was the first real sign of ultimate victory. No longer were the Americans at a psychological disadvantage.

Mr. Speaker, it was a great moment in American history.

Briefly, the actual course of that battle deserves review here. Fort Stephenson was a 1-acre fort, built in 1812 at Lower Sandusky, now known as Fremont, Ohio. It had three blockhouses,

a stockade 14 to 16 feet in height, and was protected by a deep ditch. Its main function was to serve as a supply depot and communications post for the other U.S. forts in the territory.

George Croghan, who commanded the fort, had little previous military experience. Born in Kentucky, the young major came from fighting stock of Irish ancestory. His father had fought in the Revolutionary War, and he was the nephew of Gen. George Rogers Clarke.

The American forces in the Northwest were headed by William Henry Harrison, hero of the Battle of Tippecanoe and later President of the United States. When Harrison received word that the British were moving on Fort Stephenson, he ordered Croghan to abandon and burn the fort.

Despite this command, Croghan replied:

> We are determined to hold this place, and by heavens, we can.

As Croghan expected, British troops, 500 in number, and gunboats, part of Commodore Barclay's fleet, were soon moving up the Sandusky River, which the fort overlooked. British General Henry "the Barber" Procter's ultimatum was that unless Croghan surrendered the small fort, a massacre from his restless Indian allies was imminent.

Croghan felt that this was another one of Procter's scare techniques, and boldly replied that the Indians would find no one to slay when the fort fell because every man had sworn to die before surrender.

The young major didn't really have much to carry out his bluff, just one cannon, "Old Betsy," a small supply of ammunition, and a group of fellow Kentucky "sharpshooters." The Americans used their ammunition sparingly, and Old Betsy was moved from one side of the fort to the other, in an effort to convince Procter that they had more than one cannon.

Impatient and frustrated with their inability to hit the fort with their cannons, the British advanced under a haze of gunsmoke, and concentrated their fire on the northwest corner of the fort. Anticipating such an attack, Croghan had the little "six pounder" camouflaged and tightly packed with grapeshot, 12 pounds of lead slugs, and scraps of metal.

When the British forces came within 30 feet, Croghan's men fired with such unison and accuracy that the enemy became confused, panicked, and headed for the ditch surrounding Fort Stephenson. Little did Procter's forces realize that "Old Betsy's" muzzle was pointed directly at the ditch.

Before the British had a chance to get reorganized, Old Betsy's brazen voice ripped through the atmosphere. She sent a fiery blast of her death-dealing contents into the close-packed mass of enemy. This was followed by yet another blast.

The British and the Indians retreated in such a hurry that they left behind 150 dead and wounded, a gunboat, much ammunition and many weapons. One American was killed and seven wounded, despite being outnumbered almost 10 to 1.

Once word of Croghan's victory reached the outside world, praise for the gallant 21-year-old soldier and his fighters poured in, including congratulations from the President and the Congress of the United States. Croghan was immediately brevetted lieutenant colonel by President James Monroe. Years later, on January 27, 1835, the House of Representatives passed a joint resolution asking the President to present a gold medal to Croghan for his brilliant defense and gallantry at Fort Stephenson.

Austere, but glowing with well-earned dignity, Old Betsy has remained in Fremont, Ohio, on the site of the battlefield that made her famous, now the grounds of the Birchard Public Library. In 1906, the Sandusky County chapter of the Daughters of the American Revolution had the body of George Croghan transferred from a grave in Kentucky and placed near the little cannon.

Side by side, the two remain as silent reminders to one of the most significant battles of the War of 1812.

Hundreds of tourists are attracted to the location yearly, as well as to Fremont's other famous landmark, the library and museum, home and burial place of U.S. President Rutherford B. Hayes.

Mr. Speaker, in these days when the tensions of the cold war are paramount in the minds of all of us, and when the mood of the country often seems so chaotic, the commemoration of an heroic event in our Nation's past, such as the Battle of Fort Stephenson, serves as an important and valuable reminder of the courage and determination with which earlier generations of Americans met their own great crises. They worked tirelessly and heroically in defense of our Republic and of the freedoms we are privileged to enjoy today, and so must we.

PERSONAL EXPLANATION

Mr. QUILLEN. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from Tennessee?

There was no objection.

Mr. QUILLEN. Mr. Speaker, the Select Subcommittee on Real Property Acquisition of the House Public Works Committee, of which I am a member, conducted official public hearings and sessions on Monday, Tuesday, and Wednesday of this week in Knoxville, Tenn. In carrying out my official duties as a member of this subcommittee I was not present when the House voted on the conference report on H.R. 3872, the Export-Import Bank Act extension, and House Resolution 453, which provided for the consideration of, and waiving points of order against, the conference report on H.R. 5207, the Foreign Service Buildings-Philippine War Damage Claims Act.

Had I been present during these votes I would have voted "aye" in support of the motion of the chairman of the House Committee on Banking and Currency to sustain the position of the House conferees opposing the back-door spending provision inserted by the other body in the bill, H.R. 3872, the Export-Import Bank Act extension.

On House Resolution 453, I would have voted "no" which would be consistent with my previous votes in the House opposing the authorizing or appropriating of funds for Philippine war damage payments.

THE COURT DECISION

Mr. SHRIVER. Mr. Speaker, I ask unanimous consent that the gentleman from Kansas [Mr. AVERY] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Kansas?

There was no objection.

Mr. AVERY. Mr. Speaker, under unanimous consent, I include in the body of the RECORD an editorial which appeared in the Baptist Digest on July 6, supporting the recent Supreme Court decision on Bible reading and prayer in the public schools.

Although I am not in complete agreement with the views reflected in this editorial, I do recognize it as being very well written and it will be of interest to many persons who read the editorial, even though it is not in total conformity with their views.

This editorial was brought to my attention by C. Emanuel Carlson, executive director of the Baptist Joint Committee on Public Affairs.

THE COURT DECISION

"We can't pray in school any more," the junior boy solemnly told his training union fellows.

His statement, which is only half-true, points up the fact that we Baptists have a lot of educating to do—educating ourselves and our children.

First, we need to study carefully the recent Supreme Court decision regarding required Bible reading and prayer in the public schools. We need to be sure we know what it says, and what it does not say. In this issue of the digest, there is an article which answers many questions about the decision. It is the dynamic sermon which Wayne Dehoney preached to his congregation in First Baptist Church of Jackson, Tenn., immediately after the Supreme Court decision was announced. Dehoney, who is the president of the SBC Pastors Conference, is respected throughout the convention. We suggest that you read the article carefully. Don't let newspaper headlines convince you that the Court has ruled God out of the public schools.

Second, we need to know ourselves as Baptists, and to search our hearts to be sure we are being honest. We are a people who demand religious freedom for ourselves and for others. Can we honestly insist that our schools, supported by public taxes, and attended by children from homes of all faiths, do the work of the church and the home by having Christian devotions? "But Bible reading and prayer aren't sectarian," many people cry. To the Moslem, Buddhist, atheist and agnostic they are. And these people, whether we like it or not, are a part of our Nation, paying school taxes and sending their children to public schools.

In arguing these cases, there has been the claim that Bible reading and prayer are not

religious exercises, but only an influence toward morality. Can there be any statement more untrue, or more nauseating to the Bible-reading, praying Christian?

Of course, religious exercises enforced by the State do have a tendency to become mere formal rites, without spirit and without meaning. Is this what we want? The form without the spirit? Christianity has never lost a thing by refusing to force itself onto others. But it has lost a great deal when it alines itself with the state, and depends upon the power of the state to carry out the evangelizing and teaching that should be carried out under the power of God.

This decision will ruin our schools, many are saying. On the contrary, perhaps this will save our public school system. The efforts of strong parochial school interests to invade the public treasury have become more frenzied in recent years. Just this year, one powerful interest after another has endorsed the unconstitutional principle of state support for parochial schools. Perhaps this decision has come just in time. If public school money cannot be used to promote the reading of the Bible and prayer as devotional exercises, then surely it cannot be used for schools that teach the beliefs of a particular sect. Public support for private schools would be the best way to insure the downfall of our strong public school system.

In its opinion, the Supreme Court speaks of the "wholesome neutrality" which the Government must observe in its contacts with groups of religious believers and nonbelievers. Surely Baptists can say "amen" to that.

Let's not fall into the blind and selfish ways of other groups, who want freedom for themselves, but not for others; and freedom only as long as it promotes their particular interests. Let us carefully teach our children the facts of true freedom. There will be no confusion in their minds about the supremacy of God, if we will intelligently explain to them the reasons for this decision, and if we will live before them positive Christian lives.

The really sad fact isn't that prayer and Bible reading have been ruled out as devotional exercises in the school. It is the fact that in many Christian homes, the Bible is never opened from week to week, and the only prayers are hasty petitions mumbled at the Almighty just before the petitioner drops off to sleep.

BICENTENNIAL COMMISSION TO COMMEMORATE THE AMERICAN REVOLUTION

Mr. WAGGONNER. Mr. Speaker, I ask unanimous consent that the gentleman from Georgia [Mr. WELTNER] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. WELTNER. Mr. Speaker, my colleague, the gentleman from Virginia [JOHN O. MARSH, Jr.], has introduced House Joint Resolution 463, calling for the establishment by the Congress of a Bicentennial Commission to Commemorate the American Revolution.

In connection with his resolution, he has drafted a statement which outlines with exceptional clarity and insight the momentous events that shaped and framed the Revolution, and forged the concepts and ideals of our great Nation. I consider Congressman MARSH's document of such significance that I have asked unanimous consent for its insertion in the body of the RECORD.

The statement is as follows:

TO FORGE A STRATEGY FOR FREEDOM

The purpose of a Bicentennial Commission is to observe the American Revolution as not primarily a historical commemoration but rather a reexamination of the issues and idea forces which produced the American Revolution. In our Western heritage, the American Revolution was the fire that took the dross out of much of the 18th century English social-political institutions and refined many Western ideas. Concord Bridge did more than start a local conflict; rather, as Toynbee has said, it began a revolutionary era. The lamentable thing today is that we have permitted the Communists to opt the ideas and ideals of our revolutionary past.

We know that in nearly all of the great movements that have shaped history, there is a body of theory including certain idealistic goals that provides an inspiration and a framework in which the participants of the cause operate. In many instances, those involved are never aware of the broad spectrum of ideals or ideas which their cause involves.

Communism, as we know it, is an idea force, marked by many lofty aspirations and ideals, which has resulted in intense motivation and dedication of its disciples even though much of the theory is false.

Cursory examination of Fabian socialism points to a dedication of an intellectual elite to such causes as economic justice, greater opportunities for the poor and achievement of better working conditions through modern legislation to improve the lot of the English workingman.

Too often, I think, in our present approach to the Sino-Soviet challenge, if we are not negative, we frequently resort to sterile objectivity without promulgating some of the basic concepts of one of the greatest idea movements man has witnessed.

We need, in my opinion, to inject into U.S. policy more of the goals and purposes of the American Revolution which crystallize the issues of some of the best thinking of a momentous age. Frequently, we say in our country that we need more "Americanism" and, although I agree with this, what I am referring to is somewhat broader than this term, or even "patriotism," worthwhile though it may be. Too often, in some of our presentations these two concepts are treated in a "Fourth of July" oratorical sense, which has its place but which I feel sometimes fails to go to the substance of what this Republic is all about.

If anything, I would describe my own thoughts on this problem more in the sense of a renaissance of the concepts and ideas of the American Revolution and the application of the same to the problems of a changing world. As I mentioned, there are exemptions to the general trend of sterile objectivity in cold war discussions and there is sought to be injected a grasp of the values of our system that really stand in jeopardy.

I feel, however, there is a greater need to define more sharply a philosophy of freedom that will give us a positive framework of ideas wherein this Nation might operate in an ideological offensive. In short, we must forge a strategy for freedom.

To me, a great opportunity seems to be presented beginning in 1963 to focus national attention on a critical period of American history occurring 200 years previously, for 1963 marks the bicentennial anniversary of the signing of the Treaty of Paris. This treaty, signed on February 10, 1763, not only ended the Seven Years' War but cost France all of her colonial possessions in North America. Little did Wolfe realize on the Plains of Abraham that the capture of Quebec in 1759 would ultimately cost the Crown her richest colonial possession in the New World.

The Treaty of Paris also marks the beginning of the American Revolution. The 12 years from 1763 to 1775 have been described as the Golden Age of the American Revolution. These might be called the idea years.

The year 1763 marked the turning point in Anglo-American relations that grew progressively worse for a number of reasons.

First, England sought to reassert colonial control that had slipped from its grasp because of military necessities of the Seven Years' War.

Secondly, there was a question of economics and repayment of a huge war debt which had been incurred by the Crown in defense of the colonies.

Third, 1763 marked the end of what is termed the "old colonial period" and ushered in the "new colonial period" that got off to an inauspicious start under George III and Grenville who became Prime Minister in April of 1763.

Fourth, historians say in 1763 there can be discerned the emergence of what has been termed "the American character," symbolic of the breed of individual that was to conquer the West and endure the hardships and rigors of what was actually a terrifying wilderness. Later this temper or character would be described as we know it today by the soubriquet "the pioneer spirit."

Clearly, the 12-year span from 1763 to 1775 would develop the issues of legality and constitutional rights that became peculiar to the American Revolution. Many of the great Englishmen, such as Burke, Pitt, and others, would find in the colonial cause, prior to armed conflict, a struggle by Englishmen living in the Americas to protect the rights of Englishmen living in the British Isles. Burke, in the House of Commons in 1775, attributed to the colonial bar a substantial role in having produced the American temper and paid tribute to what the legal profession did in formulating and defining the issues of the Revolution. Perhaps of all the hallmarks that distinguished the American Revolution none is more prominent than the emphasis placed on "legality" and the need for civil authority to accomplish revolutionary ends. Historians point out that there was never associated with this conflict, bloody as it was, the terrorism, anarchism, and radicalism which accompanied the French and Russian revolutions.

As in our own age, we see the confluence of revolutionary changes, so the 1760's would feel the impact of the industrial revolution, the passing of mercantilism as a national economic policy and the emergence of the ideas of human rights and liberty espoused by Montesquieu, Rousseau, and Voltaire. Though their own countrymen listened to them, it took the English to learn from these great French thinkers and the American Colonies to apply the principles they advanced.

Events moved rapidly through the golden age, and there were no geographical limits in the American Colonies within which the revolutionary battle of ideas was fought. Not only did the Sugar Act of 1764, which was a reenactment of the Molasses Act of 1733, cripple the prosperous rum industry of New England, but it was accompanied by a strict enforcement of the custom laws which the American colonist viewed as serious danger to his personal liberty because of the manner in which the offenders were tried. Trial by jury became a thing of tremendous value to the American of that day. He feared the admiralty court which tried custom violators, because it required his being transported to Halifax—there to stand trial under a system of jurisprudence which did not recognize the presumption of innocence but rather condemned men on the probability of guilt.

The quartering of 10,000 British regulars in North America pursuant to a policy decision of the Crown to control the western frontier and discourage the French from seeking to reestablish lost colonial possessions would plague the royal governors and representatives of the Crown here and in England long before hostilities began. The cost of these troops would lead to a bitter clash between the royal governors and the legislature in the Colony of New York resulting in dissolution of the general assembly in 1767.

In the hated stamp tax of 1765, the Colonies saw an infringement upon the freedom of the press and the slogan of "taxation without representation" would also lead to the famous Virginia Resolves of 1765 and Patrick Henry's memorable speech: "If this be treason, then make the most of it." The Virginia Resolves swept through the Colonies and were adopted or cited favorably in nearly all of the 12 other Colonies.

Aside from being oppressive in the economic sense, the Townsend Act, which dealt with an enumerated list of items of import that gave Britain favored treatment, really angered the colonist because of the writs of assistance which were, in effect, blank search warrants to aid in the enforcement of the act. It was the unwise acts of Parliament that would cause Massachusetts to call for the convening of a Congress of all of the Colonies in New York in 1765.

The sixties would see the boisterous groups that complained so loud and bitterly about actions of the Crown. Groups of brash young men frequently resorted to burning and other types of violence to frustrate royal action. In the sixties they were to be identified as the "Sons of Liberty."

Events moved rapidly through the latter part of this fateful decade and in the first years of the next. The Boston Massacre, the tax on tea to save the bankrupt West Indian Company and the ensuing Boston Tea Party, would all take place before Concord Bridge.

Yet accompanying and supporting these acts of protest and petitions of wrongs and grievances was the brilliant writing and reason of such men as Jefferson, Franklin, Washington, Sam Adams, and a host of others. Dickinson, of Pennsylvania, in his famous "Farmer John's Letters" would expose the inequities, fallacies, and injustices of colonial policy. Such leadership as his would inspire the committees on correspondence that probably made the American Revolution the most clearly defined and best reasoned struggle that was ever fought.

If the Revolution was to be based on reason, it nevertheless was not a struggle between the "haves" and the "have nots." Men of wealth and influence could be found with the patriots or equally with the Tories. Merchantmen, clerics, educators and innkeepers cast their lots equally on one side or the other. Some of the poor were just as loyal to George III as those of similar estate were loyal to the patriots' cause.

The point I am trying to emphasize is that perhaps through this reexamination of the American past, we can better appreciate the values of our Republic and better understand the stakes involved in the present world struggle. After all, the words, "liberty," "freedom," and "justice," that are crudely painted on the posters carried by those who riot today through southeast Asia, Latin America and Africa do not have their origins in the Communist Manifesto but rather have their inspiration in the American Declaration of Independence. I also know that in looking back we can see great lessons in courage of the human spirit; willingness to sacrifice for principle; a sense of dedication to a great cause, and an inspiration to present Americans which would contribute to national will.

I have hardly touched on some of the great events that were to shape not just the destiny of 2½ million people who lived in the Colonies but rather, as Washington would say, "the destiny of unborn millions." The shot fired at Concord Bridge echoes today. I submit that before it was to signal the beginning of an armed conflict, men and women here and in England clearly understood why that sound would be heard. Today we need that same understanding.

DR. JOSEPH E. SMADEL

Mr. WAGGONNER. Mr. Speaker, I ask unanimous consent that the gentleman from Rhode Island [Mr. FOGARTY] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. FOGARTY. Mr. Speaker, medical science has suffered a great loss with the death of one of its outstanding leaders, Dr. Joseph E. Smadel. Few of us are able to contribute to society in such a way as to benefit all mankind. Yet Joseph Smadel was such a man.

Because of his work, tens of thousands of people throughout the world have been cured of typhoid fever, plague, scrub typhus, epidemic typhus fever, and Rocky Mountain spotted fever. He and his colleagues have prevented the occurrence of these diseases in untold numbers throughout the world.

His work has in no small measure paved the way for the transition of medical science from concern with the acute, infectious diseases to concern with the chronic killers such as cancer which, ironically, was the disease that took his life on July 21.

Joseph Smadel, born in Vincennes, Ind., 56 years ago, received his doctor of medicine degree from the Washington University Medical School in St. Louis. Soon after leaving medical school, and while still a resident physician, he helped to investigate the first recognized outbreak of a rare form of sleeping sickness—St. Louis encephalitis. Thus began his lifelong interest in virological research.

During his 12 years with the Rockefeller Institute, Dr. Smadel continued his research on virus diseases. He was particularly interested in a family of viruses known as the rickettsiae.

By 1948 he had demonstrated that the antibiotic, chloramphenicol, could effectively treat typhoid fever. Before his discovery 12 percent of all those who contracted the disease died. Today, fewer than 2 percent die.

Joseph Smadel's selfless dedication to science is illustrated best by his use of his own body as a testing ground for discoveries. And there were many discoveries. He made significant contributions toward the diagnosis, prevention, and treatment of a long and impressive list of diseases, working with the viruses of influenza, Venezuelan equine encephalitis, Russian spring-summer encephalitis, poliomyelitis, vaccinia, variola, lymphocytic choriomeningitis, psittacosis, and myxomatosis.

After serving in the Army during World War II, Dr. Smadel devoted much of his efforts to the typhus fevers and to spotted and Q fevers, demonstrating that the latter too could be effectively treated with chloramphenicol.

He traveled throughout the world. After serving in Europe and North Africa during World War II, he investigated epidemic and murine typhus in Mexico, scrub typhus and typhoid in Malaya, leptospirosis in Puerto Rico, pneumonic plague in Madagascar, and epidemic hemorrhagic fever in Korea.

Just before his death, the laboratory which he headed at the National Institutes of Health completed a measles research project in Upper Volta, Africa, where more than 730,000 West African children were vaccinated painlessly with jet injectors. Dr. Smadel had helped design the needleless inoculator which can immunize over 300 persons in an hour.

At the time of his death he was studying the bacterial organisms that cause cholera. The study was part of the SEATO Cholera Research program which he had helped to establish.

Joseph Smadel liked to teach. He held regular classes at the Army Medical School while on the medical staff of the Walter Reed Army Institute of Research from 1946 to 1956. He taught at a number of universities and particularly enjoyed giving preceptor training to young people who worked with him.

In 1962 he received one of the highest recognitions given to scientists when he received the Albert Lasker Clinical Research Award. The citation called special attention to the critical importance of his discoveries to America's military and civilian personnel and allies in southeast Asia.

The citation described him as "one of the outstanding scientists of this generation, a tireless investigator, creative and critical thinker, and an inspiring leader." This accolade only emphasizes the enormity of the loss that his death has brought to mankind, medical science, and to his wife, Elizabeth, to whom I extend my deepest sympathy.

Words spoken in praise of Joseph Smadel are a poor tribute to one who gave so much of himself.

SIXTH MEETING CONSUMER ADVISORY COUNCIL

Mr. WAGGONNER. Mr. Speaker, I ask unanimous consent that the gentleman from New York [Mr. ROSENTHAL] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. ROSENTHAL. Mr. Speaker, next Monday, August 5, 1963, the Consumer Advisory Council is scheduled to hold its sixth meeting. In addition to an organizational meeting last July, the council has held five 2-day meetings. The President attended the first meetings and also one meeting in January. But despite the manifest interest of the Presi-

dent in its program, the Consumer Advisory Council has displayed excessive timidity and administrative ineptitude during its brief history. It should stiffen its spine or be abandoned.

This judgment is not made hastily. I have followed closely the work of the Consumer Advisory Council and have patiently awaited indications that it will fulfill the intent of the consumer plank in the 1960 platform of the Democratic Party and the superb speech on consumer protection made in New York by the President, as a candidate, a few days before the 1960 election.

Thus far I have been disappointed, and so have millions of consumers, by the performance of the Consumer Advisory Council. Sylvia Porter, the widely respected economic columnist of the New York Post, has resigned from the council. She has not been replaced. Dr. Robert J. Lampman, the official overseer of the Consumer Advisory Council, has publicly stated that the council's activities will be leisurely and restrained, which perhaps explains why no progress has been made in filling the vacancy created by Miss Porter's resignation.

Mr. Speaker, I am deeply disturbed also by the fact that the Council of Economic Advisers, which incongruously keeps the Consumer Advisory Council on a tight checkrein, has adopted a policy of releasing to the public some, but not all, of the position statements adopted by the subordinate advisory body. For example, endorsements of the truth-in-lending bill and the truth-in-packaging bill were made public, but we were not permitted to know the position taken by the Consumer Advisory Council on alleged overcharges by 30 electric utilities, on the public-interest aspect of securities issued by public utilities, nor on the operations of the Food and Drug Administration, an extremely important and sensitive consumer protection agency.

If the work of the Consumer Advisory Council is to be confidential, so be it; although this to me would be a deplorable, ineffectual policy. But if the recommendations of the council are to be public property—as I believe they should be—then I submit that all the recommendations and reports of these public-spirited citizens should be released, and let the chips fall where they may. Why should honorable and experienced representatives of the consumers come down to Washington to render advice and then have some of their conscientious recommendations stifled and others trumpeted? I would not be surprised to hear of further resignations, if this arbitrary and capricious policy is continued.

Finally, Mr. Speaker, I believe the weak-kneed attitude of those currently in charge of the Consumer Advisory Council, as well as the great and growing need for better consumer representation in the structure of the Federal Government, both argue forcefully for enactment of my bill, H.R. 6865, which would establish an independent Office of Consumers. It would be extremely interesting to know the opinion that the members of the Consumer Advisory Council hold regarding this particular bill, the counterpart of which is sponsored in the other body by Senator ESTES KEFAUVER, as staunch and proved a friend as the consumer has in the United States today.

I trust that time will be found during the council's meeting next week to discuss this bill and to take a stand on it. I trust also that the judgment of the council on this bill, if one is formed, will be made known to Congress and the public so that we may act in the consumer interest.

RAILWAY LABOR DISPUTES

Mr. WAGGONNER. Mr. Speaker, I ask unanimous consent that the gentleman from West Virginia [Mr. STAGGERS] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. STAGGERS. Mr. Speaker, July 29 I introduced House Joint Resolution 579, which is a bill to provide for the settlement of the labor dispute between certain railroads and their employees.

I believe it is a fitting substitute for House Joint Resolution 565. As you recall, House Joint Resolution 565 would have the effect of turning over the issues in dispute to the Interstate Commerce Commission for arbitration. Now these disputes involve the basic work rules of the men who run the trains, and I do not agree that the ICC would be the proper forum for such a subject even if I favored this type of arbitration, which I do not.

I believe irreparable damage would result from the passage of House Joint Resolution 565, and in the end result, the parties would still be in dispute at the end of a 2-year period—possibly under worse circumstances than they are today.

This dispute on the railroads must be settled and it must be settled by the parties in collective bargaining. House Joint Resolution 579 will provide the setting for such bargaining.

The bill first provides for an indefinite status quo so that no changes may be made in existing rates of pay, rules, or working conditions encompassed by any of the notices in dispute, nor could the parties engage in any strike or lockout over any dispute arising from any of such notices.

Next, under section 2, the bill puts the disputing parties back into collective bargaining, with provision for any assistance necessary by the Secretary of Labor and the National Mediation Board.

To guarantee that these parties will actively work to dispose of the dispute between them, a Special Joint Emergency Railroad Committee consisting of five Members of the House of Representatives to be designated by the Speaker of the House and five Members of the Senate to be designated by the President of the Senate is provided.

At 10-day intervals, the Secretary of Labor and the National Mediation Board will report to the Special Joint Emergency Railroad Committee the progress of the negotiations.

If, at any time, the Special Joint Emergency Railroad Committee finds the procedures being followed afford no prospect of resolution of the disputes within a reasonable time, it may report to Congress together with recommendation for further action in the Congress.

Mr. Speaker, I support this bill because I am convinced this dispute can and should be settled between the parties.

Public interest opposes a nationwide railroad strike, but to deprive the employees of a right to strike is unfair. To balance the scales, the railroads must refrain from arbitrarily making the changes they seek. The parties must settle their differences face to face, as they have always done in the past, and I think House Joint Resolution 579 will provide the way.

A SECTION 213 HOUSING MUTUAL INSURANCE FUND

Mr. WAGGONNER. Mr. Speaker, I ask unanimous consent that the gentleman from New York [Mr. MULTER] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. MULTER. Mr. Speaker, I have joined today with my distinguished colleagues, the gentlemen from New York Mr. HALPERN, Mr. DELANEY, Mr. FINO, Mr. GILBERT, Mr. ADDABBO, Mr. ROSENTHAL, and Mr. MURPHY, in sponsoring legislation to amend the National Housing Act to create a separate mutual insurance fund for section 213 cooperative housing.

The condition of the fund warrants the putting of the fund on a mutual basis and I hope that the Housing Subcommittee will take action on the measure in the near future.

The result of the separate mutual fund will be to reduce insurance premium costs, something that we have long advocated. We have long looked for a solution to the problem of premium reduction and this bill will, I believe, provide the means to that end.

TO AUTHORIZE THE MAILING OF LOTTERY TICKETS

Mr. WAGGONNER. Mr. Speaker, I ask unanimous consent that the gentleman from New York [Mr. MULTER] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. MULTER. Mr. Speaker, I have introduced H.R. 7856, which would authorize the transmission through the mails of lottery tickets and other material relating to a lottery operated by a State or political subdivision thereof.

I have introduced this bill because I believe that the Federal law prohibiting the transmission through the mails of lottery information should be amended so as to exclude State and local governments.

I am very much in favor of the recent action of the New Hampshire State Legislature in establishing a State lottery for the purposes of raising revenue to provide that State with more and better

schools and hospitals and public debt amortization.

Governor King and the people of New Hampshire are to be congratulated for adopting a sensible solution to some of the fiscal problems facing all of our State and local governments.

As an example of the kind of proposal which would be possible if my bill were adopted, I would cite the resolution put before the New York City Council by Councilman Morris Stein which would provide for the sale of non-interest-bearing bonds by the city of New York with a substantial prize if the purchaser's bond number is picked in a lottery. If the New York State law was amended to permit this, the lifting of the Federal prohibition would aid greatly in the sale of such bonds.

A FAIR, IMPARTIAL, AND CONTROLLED TEST FOR KREBIOZEN

Mr. WAGGONNER. Mr. Speaker, I ask unanimous consent that the gentleman from New York [Mr. MULTER] may extend his remarks at this point in the RECORD and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. MULTER. Mr. Speaker, I have introduced House Joint Resolution 598, which would authorize and direct the National Institutes of Health to undertake a fair, impartial, and controlled test of Krebiozen and would direct the Food and Drug Administration to withhold action on any new drug application before it on Krebiozen until the completion of such a test. The resolution would further authorize the appropriation of $250,000 to conduct the test.

The arguments and discussions over Krebiozen have been going on now for many years; I believe it is now time to end the controversy by having the National Cancer Institute conduct the necessary tests immediately and without further delay so that we may determine whether Krebiozen serves any useful purpose in the treatment of cancer. It seems unnecessary to mention the pain and suffering caused by cancer and the number of people who lose their lives each year because of this dread disease. All of us are familiar with it; all of us know from personal experience, either through family or friends, the fearful toll taken by cancer.

I strongly urge that this resolution be given immediate consideration by the Congress so that those now using Krebiozen may continue to use it until the completion of the National Cancer Institute's tests. If there is the slightest chance that Krebiozen is helping those now using it, we must not allow the Food and Drug Administration to keep the drug from them.

KORTH'S BANK HAD SMALLEST PART OF GENERAL DYNAMICS LOAN

The SPEAKER. Under previous order of the House, the gentleman from Texas [Mr. WRIGHT] is recognized for 10 minutes.

Mr. WRIGHT. Mr. Speaker, I ask unanimous consent to revise and extend my remarks and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. WRIGHT. Mr. Speaker, in order that the matter earlier discussed concerning Secretary of the Navy Fred Korth may be seen in its proper perspective, I am including here a newspaper article which appeared in the Fort Worth Press on Wednesday, July 31:

CONTINENTAL GOT SMALLEST PART OF GENERAL DYNAMICS LOAN BEFORE KORTH TOOK OFFICE

(By Delbert Willis)

If Navy Secretary Fred Korth used his political influence to get loans for his bank, he was a piker.

If Republican Senators are truthful in saying he had a "conflict of interest" in the TFX plane contract, then Mr. Korth probably will go down as the most ineffective influence peddler in history.

General Dynamics Corp., parent company of General Dynamics/Fort Worth, negotiated with Chase Manhattan Bank of New York in 1961 to borrow up to $200 million.

Chase Manhattan spread the $200 million credit among 20 banks from the Atlantic coast to the Pacific coast, including some in the Midwest, one in Dallas and three in Fort Worth. One of those three Fort Worth banks was the Continental National, of which Mr. Korth was president before he resigned in 1962 to become Secretary of the Navy. But Continental finished in last place in money volume among the 20 banks who gave credit to General Dynamics. Total amount of the Continental credit, according to local bankers, was two-tenths of 1 percent.

Continental advanced less than half as much as did the next lowest bank down the list—19th from the top. Both the Fort Worth and the First National in Fort Worth loaned considerably more than did Continental. So did a Dallas bank.

Monday Mr. Korth was attacked on the floor of the Senate by Senator MILWARD SIMPSON, Republican of Wyoming, who said that the former Fort Worth banker and lawyer was involved in "political interest and favoritism" in the TFX contract.

He said that Korth's testimony before the Senate investigators last week was "shocking almost beyond belief."

The Wyoming Senator's blast was the third Republican, antiadministration blast at Korth leveled on the floor of Congress within the past 6 days.

The record of the General Dynamics loans or "credit agreements" is clearly pointed out in all of the corporation's annual reports.

As explained in the 1961 report, the agreement provided for borrowing a maximum of $200 million. But this total was never reached. The total of the short-term notes amounted to $169,171,264 at the end of 1961, but was reduced to $90,044,119 by the end of last year.

The last 6-month report revealed that all of the short-term loans were completely paid off as of July 1, 1963.

The agreement with Chase Manhattan Bank was made in the second half of 1961. At that time Mr. Korth was president of Continental and John Connally was Secretary of the Navy. The agreement between Chase and the 20 banks was made long before Mr. Korth became Secretary of the Navy on January 3, 1962.

Senator KARL MUNDT, in a transcript of testimony before the Senate investigating committee, made quite a point that Mr. Korth was president of the bank at the time the loan was made.

"Senator MUNDT. Were you the officer of any business institution which at the time you were officer of the institution did business with either Boeing or General Dynamics?

"Secretary KORTH. I have so testified. I was president of the Continental National Bank of Fort Worth. I previously in response to the third question before this last one testified that I had owned and do own stock in the Continental National Bank which did business on a very small scale with the General Dynamics Corp.

"Senator MUNDT. Did business with General Dynamics at the time you were a stockholder, having no control over who does business with General Dynamics, or Boeing, or anybody else, or did they do business at the time you were, did you say president or vice president? [sic]

"Secretary KORTH. I was president of the bank at the same time I was a stockholder in the bank. At the time I was president, the bank did business with General Dynamics on a modest scale.

"Senator MUNDT. While you were president?

"Secretary KORTH. Yes, sir. I have so stated three times now.

"Senator MUNDT. All right. Will you define what a modest scale is, because I don't know. Did they have a checking account with the bank?

"Secretary KORTH: Yes, sir; they had a checking account with the bank. The precise figure I am not aware. And I don't really know whether I should properly so testify here as to the amount of money."

Mr. Korth later testified under persistent questioning by Senator MUNDT, that the loan limit at the bank was $600,000.

The questioning then went off the record as Mr. Korth insisted that the amount of any loan was confidential between banker and client, just as information between a doctor and a patient, a lawyer and his client. But in the off-the-record discussion he did try to give the committee members some idea of the size of the loan.

Local bankers say Continental advanced credit up to $400,000, but this amount was never completely drawn. The next largest bank doing business with General Dynamics allowed credit almost up to $1 million.

When General Dynamics Corp. made the credit agreement with Chase Bank, it was for all of the General Dynamics subsidiaries, not just General Dynamics, Fort Worth. This includes Electric Boat Division, Electro Dynamic Division, General Atomic Division, General Dynamics/Astronautics, General Dynamics/Convair, General Dynamics/Fort Worth, General Dynamics/Pomona, Liquid Carbonic Division, Material Service Division, Stromberg-Carlson Division and Canadair, Ltd., Montreal, Canada. That was why it was such a big loan.

Continental still has a checking account with General Dynamics/Fort Worth, but it is much smaller than the accounts with Fort Worth National and First National.

KREBIOZEN

The SPEAKER. Under previous order of the House, the gentleman from New York [Mr. FARBSTEIN] is recognized for 10 minutes.

Mr. FARBSTEIN. Mr. Speaker, I would like to address the House on the subject of Krebiozen.

The legal entanglements relating to the testing and continued use of Krebiozen should not obscure the fact that hundreds of people believe they owe their lives to this drug. Nonetheless, numerous people who rely on Krebiozen are beginning to find it unavailable. This is so because, since July 15, compliance with the Kefauver-Harris drug amend-

ments has prevented its movement in interstate commerce. Under present laws, Krebiozen cannot be shipped in interstate commerce until plans are filed with the Food and Drug Administration, or until lengthy tests have been completed.

Thus the problem facing us today is twofold. First, we must seek to assure those who depend on Krebiozen that they will continue to receive it. Second, we must end the scientific hassle concerning Krebiozen's curative powers by providing that it be conclusively and safely tested.

I am today introducing a resolution to promote the achievement of these ends. This resolution is in accord with my previous activities, for, as early as May 23 of this year, I called upon the Secretary of Health, Education, and Welfare to ensure the drug's continued availability to those now receiving it.

What I am asking is not that special treatment be given to Krebiozen by the Department of Health, Education, and Welfare, nor that the Kefauver-Harris drug amendments be set aside. Rather, I am urging the Congress to pass legislation to provide funds for an effective test. Also, I ask Dr. Durovic to file plans with the Food and Drug Administration so that the distribution of Krebiozen in interstate commerce can be resumed. Finally, I express the hope that the organizations and individuals involved in this controversy will settle their personal differences and act in the best interests of medical advancement.

The urgency of the problem requires that Congress take immediate steps for its alleviation. We must not remain deaf to the cries of those who feel that the unavailability of Krebiozen poses an ever-increasing threat to their existence.

COOPERATIVE ACTION FOR COOPERATIVES

The SPEAKER. Under previous order of the House, the gentleman from New York [Mr. HALPERN] is recognized for 15 minutes.

Mr. HALPERN. Mr. Speaker, today I am privileged to join with the able gentleman from Brooklyn [Mr. MULTER] and a group of our distinguished colleagues in introducing legislation to set up a mutual insurance fund for section 213 housing cooperatives.

The other Members who have teamed up for this collective sponsorship include the highly respected dean of the Queens County delegation [Mr. DELANEY] and our outstanding Representatives [Mr. ADDABBO and Mr. ROSENTHAL]. The other sponsors are two of the able Members from the Bronx [Mr. FINO and Mr. GILBERT], and Staten Island's fine Representative [Mr. MURPHY].

This legislation, Mr. Speaker, is designed to reduce the mortgage insurance costs for the residents of 213 cooperative housing.

There should be little argument against the merits of the objective this legislation seeks. The superb insurance record enjoyed by this type of Government-insured housing certainly justifies any benefits that may be realized from the application of the mutual insurance principle.

It is significant that the sponsors of this legislation are from New York City. Greater New York leads the Nation in 213's, and the success of the program there exemplifies what can be done throughout the country to provide reasonable, comfortable, and desirable middle income housing. The owner-occupants of 213 units represent the finest examples of American community life. They take much pride in their ownership and in the collective interest they take in their communities.

Cooperative housing is not just a high sounding ideal as it was not too many years ago—a dream of model living that applied to Sweden or other nations of the world—it is now an accepted and important segment of the housing scene in America. And if ever any program epitomized democracy in action, it is 213 housing. More and more its significance is being realized in relationship to the general welfare of our nation. It provides the most feasible answers to the serious and growing problems confronting urban centers. It is the only housing program that offers real protection to middle income families. There is no question that section 213 has proven successful—more so, I feel, than any other section of the Housing Act. Little did the fathers of the concept of cooperative living in America ever dream of the success it would enjoy. And to think that the program is only 13 years old. Young, yes, but old enough to have a full evaluation given to its experience.

We cannot emphasize enough the contribution made by housing cooperatives and we urge officialdom on all levels to recognize the principle that the program should be enhanced and encouraged instead of being taken for granted, or neglected; moreover, that it should be kept current and up to date according to the changing realities of everyday situations.

With this in mind, there are certain conclusions based on the housings co-ops' 13-year history that are excellent and must be recognized. Outstanding among them is the superb mortgage insurance record enjoyed by the housing cooperatives. They have paid over $17 million into the housing fund and have had virtually no losses. Yet, the housing cooperators still pay one-half of 1 percent in mortgage insurance premiums—the same as 13 years ago. Ordinarily, good insurance experience brings direct reductions in premiums—or, under mutual programs, dividends are prorated on experience. Housing cooperatives have received neither. Co-ops have proven their superb, unmatched experience and any denial of a reduction in rates is inequitable to say the least. They have earned it and they are entitled to it.

That is why I am so greatly disappointed that the congressional authorization to the FHA to reduce insurance premiums from one-half to one-fourth of 1 percent has not been implemented. I feel the intent of Congress has obviously been ignored here. I am sure that is the motivation of the bill introduced earlier in the session by the hardworking gentleman from Brooklyn [Mr. MULTER] who has been relentless in the effort to win reduction in carrying costs for 213 cooperators. As one who has long advocated such a reduction and who has sponsored the present authority given to the FHA Commissioner to reduce the premiums to one-fourth of 1 percent, I enthusiastically joined the gentleman in sponsoring legislation calling for the mandatory approach. This effort was buttressed by our colleague, Mr. ROSENTHAL, who introduced an identical measure.

But the mandatory reduction of insurance rates by statute meets considerable administrative and legislative resistance. The administration contends that actuarially rate reduction cannot be justified. More time, it says, is needed to prove its soundness under actuarial formulas. Further, it maintains that co-ops are a part of the overall housing fund and that a reduction for 213's could jeopardize the fund itself. It also states that mandatory rate reduction is contrary to basic insurance principles—that rates must be discretionary, based on experience and the relationship of that experience to the reserves. What is more, it is argued that the Administrator has the power given under last year's law to which I referred, to reduce the premium to one-fourth of 1 percent.

When warranted, we must resist these arguments, insisting that the proven experience most certainly does justify a reduction; that as long as the co-op insurance is incorporated within the Housing Fund, it is victimized by the tremendously greater loss ratio of other FHA-insured sections, thereby diminishing hopes for a voluntary reduction. That is why mandatory legislation was offered.

This fight for MIP reduction must go on and we should leave no stone unturned to achieve it. Meanwhile, we must not lose sight of another means to accomplish a reduction in costs—insurance mutuality.

Following the basic insurance principle that rates are based on experience, this approach should result in decided reductions. Under the proposal two separate mutual funds would be established—the cooperative management insurance fund and a cooperative sales insurance fund. Under the mutuality program, the sales fund and the management fund would each have two separate accounts. The two accounts for each fund would be handled in the same manner as the section 203 mutual account that sets the precedent for this type of separation.

There is interesting legislative background for this legislation about which I would like to remind the House. In 1959 an amendment I proposed was approved by committee and included in the Housing Act. But, unfortunately the act itself was vetoed by the President. It was contained in the 1960 act which, regretfully, died in the Rules Committee. Also, it is with much regret the principle was not accepted in the housing bill enacted in the 87th Congress. Although there appeared to be general agreement that the principle is reasonable and sound, technical and other

considerations to properly expedite its implementation came up, and it was recommended that a little more time was needed before it could be accomplished. What's more it was pointed out that the 213 program was making strong advances in the 87th Congress through the approval of two amendments, one to reduce the premiums of one-fourth percent, and the other to provide means for supplemental financing for capital repairs and improvements.

Now here we are in the thick of the 88th Congress, and despite the optimism generated by the authorization to reduce the insurance premiums, the rate still remains the same as it was 13 years ago.

The time has come for action. And while the issue of reducing the rate by statute, or implementing existing authority to do so, is being debated, there is no sound reason why a separate mutual fund could not be established. It is conceivable that under mutuality the reduction in premiums will even be greater than hoped for. This may seem optimistic but I have every reason to believe that the unequalled successful experience of 213's will be maintained. And as time goes on, with a longer base of actuarial history, the benefits will increase even more. I can see no inconsistency with this approach and with advocating reduction to one-fourth of 1 percent. Both could be effectuated. As a matter of fact, if the MIP were lowered, and a mutual fund were in effect and the experience still warranted further reduction through refunds, then there would be no reason why this could not be done.

Mr. Speaker, I sincerely urge that this legislation be given early committee and floor approval. I wish to commend the cosponsors of the measure for their cooperative effort toward the realization of this equitable and reasonable goal. In particular, I wish to compliment the distinguished gentleman from Brooklyn [Mr. MULTER], for his outstanding dedication and relentless efforts in behalf of housing cooperators. It is a privilege indeed, to be at his side and to work with our colleagues in this concerted effort. I want, also, to commend the Federation of 213 Cooperatives, its president, Irving Sherman, and its officers, for providing outstanding and alert leadership for their cause. They are not only carrying on a determined fight to better conditions for the present occupants of 213's but they are making conditions more conducive for the advancement of this program, thereby helping to meet America's ever-growing problem of middle class housing. The federation has shown that co-ops can give leadership to themselves. They reflect a commendable fighting spirit, a civic consciousness which is too often lacking in this country of ours today.

LEAVE OF ABSENCE

By unanimous consent, leave of absence was granted to Mr. BLATNIK (at the request of Mr. KARTH), for today, August 1, 1963, on account of official business.

SPECIAL ORDERS GRANTED

By unanimous consent, permission to address the House, following the legislative program and any special orders heretofore entered, was granted to:

Mr. FOREMAN, for 2 hours, on Tuesday, August 6, 1963.

Mr. RIVERS of South Carolina, for 2 hours, on Wednesday, August 7.

Mr. WAGGONNER, for 60 minutes, on Wednesday, August 7.

Mr. ROOSEVELT, for 30 minutes, on Monday, August 5.

Mr. WRIGHT, for 10 minutes, today, to revise and extend his remarks and include a newspaper article.

Mr. HALPERN (at the request of Mr. SHRIVER), for 15 minutes, today, and to revise and extend his remarks.

Mr. FARBSTEIN (at the request of Mr. WAGGONNER), for 10 minutes, today, to revise and extend his remarks and to include extraneous matter.

EXTENSION OF REMARKS

By unanimous consent, permission to extend remarks in the CONGRESSIONAL RECORD, or to revise and extend remarks, was granted to:

Mr. PELLY, the remarks he will make in the Committee today on H.R. 7500 and to include extraneous matter.

Mr. ROUSH to revise and extend his remarks on the Roudebush amendment to H.R. 7500 and to include letters from Dr. Stahr, president of Indiana University, and Dr. Hovde, president of Purdue University.

(The following Members (at the request of Mr. SHRIVER) and to include extraneous matter:)

Mr. ALGER.
Mr. WESTLAND.
Mr. SAYLOR.
Mr. COLLIER.
Mr. HOSMER.

(The following Members (at the request of Mr. WAGGONNER), and to include extraneous matter:)

Mr. FASCELL.
Mr. THOMPSON of Louisiana.
Mr. TOLL.
Mr. O'HARA of Michigan.
Mr. SHELLEY.

ENROLLED BILL SIGNED

Mr. BURLESON, from the Committee on House Administration, reported that that committee had examined and found truly enrolled a bill of the House of the following title, which was thereupon signed by the Speaker:

H.R. 5207. An act to amend the Foreign Service Buildings Act, 1926, to authorize additional appropriations, and for other purposes.

ADJOURNMENT

Mr. WAGGONNER. Mr. Speaker, I move that the House do now adjourn.

The motion was agreed to; accordingly (at 5 o'clock and 46 minutes p.m.), under its previous order, the House adjourned until Monday, August 5, 1963, at 12 o'clock noon.

EXECUTIVE COMMUNICATIONS, ETC.

Under clause 2 of rule XXIV, executive communications were taken from the Speaker's table and referred as follows:

1087. A letter from the Secretary of the Army, transmitting a draft of a proposed bill entitled "A bill to amend title 10, United States Code, to establish a nutritionally adequate, well-balanced, and uniform ration for the Armed Forces, and to authorize the Secretaries of the military departments and the Secretary of the Treasury to regulate the issuance and sale of the ration and to prescribe special rations, and for other purposes"; to the Committee on Armed Services.

1088. A letter from the Comptroller General of the United States, transmitting a report on the unnecessary planned procurement of 36,000-British-thermal-unit air conditioners by the Department of the Army; to the Committee on Government Operations.

1089. A letter from the Commissioner, Immigration and Naturalization Service, U.S. Department of Justice, transmitting copies of the orders entered in the cases of certain aliens who have been found admissible to the United States, pursuant to the Immigration and Nationality Act; to the Committee on the Judiciary.

1090. A letter from the Commissioner, Immigration and Naturalization Service, U.S. Department of Justice, transmitting copies of orders entered in cases in which certain authority was exercised in behalf of such aliens, pursuant to the Immigration and Nationality Act; to the Committee on the Judiciary.

1091. A letter from the Comptroller General of the United States, transmitting a report on additional costs resulting from procurement of test equipment as special tooling under cost-plus-a-fixed-fee contracts awarded to Lockheed Aircraft Corp., Missile and Space Division, Sunnyvale, Calif., by the Departments of the Air Force and Navy; to the Committee on Government Operations.

1092. A letter from the Comptroller General of the United States, transmitting a report on overprocurement by the Department of the Navy of spare guidance components for the shipboard repair of Improved Tartar missiles; to the Committee on Government Operations.

REPORTS OF COMMITTEES ON PUBLIC BILLS AND RESOLUTIONS

Under clause 2 of rule XIII, reports of committees were delivered to the Clerk for printing and reference to the proper calendar, as follows:

Mr. WATSON: Committee on Post Office and Civil Service. H.R. 6396. A bill to permit certain Government employees to elect to receive compensation in accordance with section 401 of the Federal Employees Pay Act of 1945 in lieu of certain compensation at a saved rate, and for other purposes; without amendment (Rept. No. 624). Referred to the Committee of the Whole House on the State of the Union.

Mr. MURRAY: Committee on Post Office and Civil Service. Interim report on use of electronic data equipment; without amendment (Rept. No. 627). Referred to the Committee of the Whole House on the State of the Union.

Mr. JONES of Alabama: Committee on Public Works. S. 874. An act to authorize the construction and equipping of buildings required in connection with the operations of the Bureau of the Mint; with amendment (Rept. No. 628). Referred to the Committee of the Whole House on the State of the Union.

Mr. JONES of Alabama: Committee on Public Works. S. 1652. An act to amend the

National Cultural Center Act to extend the termination date contained therein, and to enlarge the Board of Trustees; without amendment (Rept. No. 629). Referred to the Committee of the Whole House on the State of the Union.

Mr. BONNER: Committee on Merchant Marine and Fisheries. H.R. 1157. A bill to exclude cargo which is lumber from certain tariff filing requirements under the Shipping Act, 1916; with amendment (Rept. No. 630). Referred to the Committee of the Whole House on the State of the Union.

Mr. WILLIS: Committee on Un-American Activities. Report pursuant to House Resolution 5, 88th Congress, pertaining to the Communist Party in southern California; without amendment (Rept. No. 631). Referred to the Committee of the Whole House on the State of the Union.

Mr. ELLIOTT: Committee on Rules. House Resolution 469. Resolution providing for the consideration of H.R. 4955, a bill to strengthen and improve the quality of vocational education and to expand the vocational education opportunities in the Nation; without amendment (Rept. No. 632). Referred to the House Calendar.

REPORTS OF COMMITTEES ON PRIVATE BILLS AND RESOLUTIONS

Under clause 2 of rule XIII, reports of committees were delivered to the Clerk for printing and reference to the proper calendar, as follows:

Mr. POFF: Committee on the Judiciary. H.R. 2928. A bill for the relief of Marika N. Vatakis; with amendment (Rept. No. 625). Referred to the Committee of the Whole House.

Mr. FEIGHAN: Committee on the Judiciary. H.R. 6097. A bill for the relief of Dr. Pedro B. Montemayor, Jr.; without amendment (Rept. No. 626). Referred to the Committee of the Whole House.

PUBLIC BILLS AND RESOLUTIONS

Under clause 4 of rule XXII public bills and resolutions were introduced and severally referred as follows:

By Mr. BROYHILL of Virginia:

H.R. 7872. A bill to amend the Civil Service Retirement Act to increase from 2 to 2½ percent the retirement multiplication factor used in computing annuities of certain employees engaged in hazardous duties; to the Committee on Post Office and Civil Service.

By Mr. FULTON of Pennsylvania:

H.R. 7873. A bill to adjust the rates of basic compensation of certain officers and employees in the Federal Government, and for other purposes; to the Committee on Post Office and Civil Service.

By Mrs. GREEN of Oregon:

H.R. 7874. A bill to provide for the appointment in the competitive civil service by the Postmaster General of postmasters at first-, second-, and third-class post offices, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. DUNCAN:

H.R. 7875. A bill to provide for the appointment in the competitive civil service by the Postmaster General of postmasters at first-, second-, and third-class post offices, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. ULLMAN:

H.R. 7876. A bill to provide for the appointment in the competitive civil service by the Postmaster General of postmasters at first-, second-, and third-class post offices, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. LINDSAY:

H.R. 7877. A bill to establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes; to the Committee on Interior and Insular Affairs.

By Mr. PATMAN (by request):

H.R. 7878. A bill to amend section 24 of the Federal Reserve Act (12 U.S.C. 371) relating to certain limitations on real estate loans by national banks; to the Committee on Banking and Currency.

By Mr. ROSENTHAL:

H.R. 7879. A bill to establish a Department of Consumers in order to secure within the Federal Government effective representation of the economic interests of consumers; to coordinate the administration of consumer services by transferring to such Department certain functions of the Department of Health, Education, and Welfare, the Department of Labor, and other agencies; and for other purposes; to the Committee on Government Operations.

By Mr. TUPPER:

H.R. 7880. A bill to establish in the Executive Office of the President an Office of Community Development; to the Committee on Government Operations.

By Mr. DULSKI:

H.R. 7881. A bill to adjust the rates of basic compensation of certain officers and employees in the Federal Government, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. GARMATZ:

H.R. 7882. A bill to amend the act of March 3, 1901, with respect to exemptions from attachment and certain other process in the case of persons not residing in the District of Columbia; to the Committee on the District of Columbia;

By Mr. GONZALEZ:

H.R. 7883. A bill to amend the Immigration and Nationality Act to permit the naturalization as citizens of the United States of persons over 50 years of age who have been living in the United States for periods totaling at least 20 years; to the Committee on the Judiciary.

H.R. 7884. A bill to provide for appointment of temporary employees to career positions in postal field service; to the Committee on Post Office and Civil Service.

By Mr. MORGAN:

H.R. 7885. A bill to amend further the Foreign Assistance Act of 1961, as amended, and for other purposes; to the Committee on Foreign Affairs.

By Mr. SCHADEBERG:

H.R. 7886. A bill to amend the Internal Revenue Code of 1954 to allow a taxpayer a credit against income tax or a deduction from gross income for certain expenses of higher education; to the Committee on Ways and Means.

By Mr. BROWN of California:

H.R. 7887. A bill to amend title II of the Social Security Act to provide that an individual's entitlement to child's insurance benefits shall continue, after he attains age 18, for so long as he is regularly attending high school or college; to the Committee on Ways and Means.

By Mr. CUNNINGHAM:

H.R. 7888. A bill to amend the joint resolution of June 15, 1934, to enlarge the functions of the U.S. Territorial Expansion Memorial Commission to provide for the encouragement of public appreciation of the inspiring heritage given to our country by the explorers and developers of the American West; to the Committee on House Administration.

By Mr. FRASER:

H.R. 7889. A bill to prohibit the use of measuring or timing devices to measure the work of an individual employee in the postal service; to the Committee on Post Office and Civil Service.

By Mr. HALEY:

H.R. 7890. A bill making Columbus Day a legal holiday; to the Committee on the Judiciary.

By Mr. STAGGERS:

H.R. 7891. A bill to establish a uniform system of time standards and measurement for the United States and to require the observance of such time standards for all purposes; to the Committee on Interstate and Foreign Commerce.

By Mr. MULTER:

H.R. 7892. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. HALPERN:

H.R. 7893. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. DELANEY:

H.R. 7894. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. FINO:

H.R. 7895. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. ADDABBO:

H.R. 7896. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. ROSENTHAL:

H.R. 7897. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. MURPHY of New York:

H.R. 7898. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. GILBERT:

H.R. 7899. A bill to amend section 213 of the National Housing Act to place the Federal Housing Administration cooperative housing mortgage insurance program on a mutual basis; to the Committee on Banking and Currency.

By Mr. BONNER:

H.R. 7900. A bill to provide for the amortization of fixed assets of the Panama Canal Company that are classified as nondepreciable; to the Committee on Merchant Marine and Fisheries.

By Mr. ADDABBO:

H.R. 7901. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. GILBERT:

H.R. 7902. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. HOLIFIELD:

H.R. 7903. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. MURPHY of Illinois:

H.R. 7904. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. ROOSEVELT:

H.R. 7905. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. THOMPSON of New Jersey:

H.R. 7906. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. UDALL:

H.R. 7907. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. VANIK:

H.R. 7908. A bill to amend the Immigration and Nationality Act, and for other purposes; to the Committee on the Judiciary.

By Mr. HÉBERT:

H.R. 7909. A bill to amend section 2306(f) of title 10, United States Code, relating to the adjustment of certain contract prices; to the Committee on Armed Services.

By Mr. OLSEN of Montana:

H.R. 7910. A bill to amend the Classification Act of 1949 to restore the granting of step increases on the basis of performance ratings of satisfactory in lieu of the standard of acceptable level of competence, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. WHARTON:

H.R. 7911. A bill to amend the Rural Electrification Act of 1936, as amended, to make more specific the purpose for which loans may be made under sections 2 and 4 of such act, and to modify the provisions relating to interest rates on loans made under such act; to the Committee on Agriculture.

By Mr. WILLIS:

H.R. 7912. A bill to amend in order to clarify the provisions of law authorizing the commitment of a defendant to the custody of the Attorney General for a study after conviction; to the Committee on the Judiciary.

By Mr. CLARK:

H.J. Res. 605. Joint resolution authorizing and directing the National Institutes of Health to undertake a fair, impartial, and controlled test of Krebiozen; and directing the Food and Drug Administration to withhold action on any new drug application before it on Krebiozen until the completion of such test; and authorizing to be appropriated to the Department of Health, Education, and Welfare the sum of $250,000; to the Committee on Interstate and Foreign Commerce.

By Mr. FARBSTEIN:

H.J. Res. 606. Joint resolution authorizing and directing the National Institutes of Health to undertake a fair, impartial, and controlled test of Krebiozen; and directing the Food and Drug Administration to withhold action on any new drug application before it on Krebiozen until the completion of such test; and authorizing to be appropriated to the Department of Health, Education, and Welfare the sum of $250,000; to the Committee on Interstate and Foreign Commerce.

By Mr. FOGARTY:

H.J. Res. 607. Joint resolution authorizing and directing the appointment of a committee to develop plans to assure impartial and efficient job placement service for all who seek employment and for all employers, as a public service; to the Committee on Education and Labor.

By Mrs. HANSEN:

H.J. Res. 608. Joint resolution proposing an amendment to the Constitution of the United States relative to equal rights for men and women; to the Committee on the Judiciary.

By Mr. LINDSAY:

H.J. Res. 609. Joint resolution authorizing the continued shipment of the drug Krebiozen in interstate commerce in order to insure the continued availability of such drug for the treatment of patients now being treated with such drug and for terminal cancer patients; to the Committee on Interstate and Foreign Commerce.

By Mr. ROSENTHAL:

H.J. Res. 610. Joint resolution providing for appropriate Federal recognition of the Bowne House, Flushing, N.Y.; to the Committee on Interior and Insular Affairs.

By Mr. BLATNIK:

H.J. Res. 611. Joint resolution to provide for the settlement of the labor dispute between certain carriers by railroad and certain of their employees; to the Committee on Interstate and Foreign Commerce.

By Mr. KARTH:

H.J. Res. 612. Joint resolution to provide for the settlement of the labor dispute between certain carriers by railroad and certain of their employees; to the Committee on Interstate and Foreign Commerce.

By Mr. OLSON of Minnesota:

H.J. Res. 613. Joint resolution to provide for the settlement of the labor dispute between certain carriers by railroad and certain of their employees; to the Committee on Interstate and Foreign Commerce.

By Mr. FRASER:

H.J. Res. 614. Joint resolution to provide for the settlement of the labor dispute between certain carriers by railroad and certain of their employees; to the Committee on Interstate and Foreign Commerce.

By Mr. HEALEY:

H.J. Res. 615. Joint resolution authorizing and directing the National Institutes of Health to undertake a fair, impartial, and controlled test of Krebiozen; and directing the Food and Drug Administration to withhold action on any new drug application before it on Krebiozen until the completion of such test; and authorizing to be appropriated to the Department of Health, Education, and Welfare the sum of $250,000; to the Committee on Interstate and Foreign Commerce.

By Mr. STAGGERS:

H.J. Res. 616. Joint resolution proposing an amendment to the Constitution of the United States relative to equal rights for men and women; to the Committee on the Judiciary.

H.J. Res. 617. Joint resolution proposing an amendment to the Constitution of the United States permitting nonsectarian prayer in public schools or other public places if participation therein is not compulsory; to the Committee on the Judiciary.

By Mr. ROGERS of Colorado:

H.J. Res. 618. Joint resolution authorizing the continued shipment of the drug Krebiozen in interstate commerce in order to insure the continued availability of such drug for the treatment of patients now being treated with such drug and for terminal cancer patients; to the Committee on Interstate and Foreign Commerce.

By Mr. WHALLEY:

H.J. Res. 619. Joint resolution proposing an amendment to the Constitution of the United States pertaining to the offering of prayers in public schools and other public places in the United States; to the Committee on the Judiciary.

By Mr. SICKLES:

H.J. Res. 620. Joint resolution to provide for the settlement of the labor dispute between certain carriers by railroad and certain of their employees; to the Committee on Interstate and Foreign Commerce.

By Mr. STAGGERS:

H. Res. 468. Resolution establishing a Special Committee on the Captive Nations; to the Committee on Rules.

By Mr. RUMSFELD:

H. Res. 470. Resolution creating a Select Committee on National Space Policy; to the Committee on Rules.

By Mr. TEAGUE of Texas:

H. Res. 471. Resolution to create a select committee to investigate expenditures for research programs conducted by or sponsored by the departments and agencies of the Federal Government; to the Committee on Rules.

PRIVATE BILLS AND RESOLUTIONS

Under clause 1 of rule XXII, private bills and resolutions were introduced and severally referred as follows:

By Mr. ADDABBO:

H.R. 7913. A bill for the relief of Mirianna Varsic Zanotti and her minor child, Bruno Luigi Zanotti; to the Committee on the Judiciary.

By Mr. GALLAGHER:

H.R. 7914. A bill for the relief of Prof. Visweswara L. Madhysatha; to the Committee on the Judiciary.

By Mr. MOSS:

H.R. 7915. A bill for the relief of Jose Sanchez Zarco; to the Committee on the Judiciary.

By Mr. O'NEILL:

H.R. 7916. A bill for the relief of Doraiswamy Varadachar; to the Committee on the Judiciary.

By Mr. PIKE:

H.R. 7917. A bill for the relief of Kazuko Nishioka Dowd; to the Committee on the Judiciary.

By Mr. TOLLEFSON:

H.R. 7918. A bill for the relief of Kyoko Kobori Brigham; to the Committee on the Judiciary.

EXTENSIONS OF REMARKS

The Day They Shook the Plum Tree

EXTENSION OF REMARKS

OF

HON. HERMAN TOLL

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. TOLL. Mr. Speaker, I call attention of the House to a current bestseller. It is "The Day They Shook the Plum Tree," the story of Hetty Green, the "witch of Wall Street," written by Arthur H. Lewis, who resides in my district in Philadelphia.

Mr. Lewis, a former newspaperman, deserves commendation for his diligence and research in the life and times of Hetty Green, who amassed a fortune, estimated at $300 million, with a complete disregard for her fellow citizens.

She lived in squalor, deprived her son and daughter of a proper home life, and left not 1 cent to charity. Her fortune ultimately was squandered by her son in aimless and riotous living, and finally disposed of in a senseless fashion by the daughter.

It is of interest to note that only a few hours after Mrs. Green's death in 1916, William Jennings Bryan, then a Congressman, noting that she had lived in a cheap boardinghouse and contributed only a few hundred dollars a year to the national economy, stated:

This woman, under our indirect method of taxation, did not pay as much toward the

support of the Federal Government as a laboring man whose income of $500 is spent on his family.

The reason for bringing this book to the attention of the House is to put in proper focus the danger of accumulation of mammoth fortunes without regard for public welfare. Hetty Green's "public be damned" attitude is still with us. It exists in the case of multimillionaires who misuse their vast fortunes in a selfish grab for power. Some set up so-called foundations which provide the funds for hate peddlers. Great sums are spent by them to fight progressive legislation and to weaken the fabric of our democracy.

On the other hand, there are a number of wealthy individuals who have dedicated their fortunes to noble ends. Those, like the Rockefeller and Ford foundations, annually spend millions to help eradicate disease, support the pursuit of knowledge, feed the hungry, and build a better life for victims of misfortune.

America must ever be alert that the public welfare be guarded from the greed of the Hetty Greens. We must revise our tax laws so that venal money lords do not find loopholes to evade their rightful tax responsibilities. We must encourage legitimate foundations set up for the public good, but we must not allow foundations to be used as devices to spread hate propaganda in an effort to divide our people in the guise of education.

The story of Hetty Green should be a warning to America that money can be a curse when misused, and a blessing when it is spent for the good of mankind.

An Outstanding Political and Civic Leader Passes to His Final Reward

EXTENSION OF REMARKS

OF

HON. HAROLD R. COLLIER

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. COLLIER. Mr. Speaker, this week sadly marked the passing of one of Illinois' outstanding political and civic leaders. On July 30, 1963, Jerry Dolezal, member of the Cook County Board of Commissioners and popular Republican leader in my congressional district, died in the Presbyterian-St. Luke's Hospital in Chicago.

Few men in the long and impressive history of State politics will leave as indelible a mark of achievement as did Commissioner Dolezal. His contribution to all of the people in his community, to his country and to the Republican Party will always be remembered.

Unlike many men who enter politics, Commissioner Dolezal was not a man with selfish, personal ambitions; for if he had been so, he could not have been denied a much higher public office because of his ability and the great respect which was accorded him by both Republicans and Democrats alike. Instead he chose the course of helping others in the common cause of strengthening his own political party while insisting on better government in the process.

The name of Dolezal is symbolic of the great civic progress which has been made in the town of Cicero, now a community of more than 70,000. As a resident and leader in this community, which once carried the stigma of the old days of gangsterism, Dolezal enlisted the aid of good citizens, church, business and industrial leaders in establishing a program to improve the town and its standards at every level. With the cooperation of public officials and other civic-minded leaders, he accomplished projects which today have made Cicero a fine residential area in which to live—in which the residents take great pride in their homes as well as their educational and civic achievements.

At the same time, Dolezal contributed to the progress of adjacent suburbs, served as Superintendent of the Illinois Industrial Home for the Blind, and more recently did an outstanding job as one of the Commissioners of Cook County, as a member of the board which serves its more than 4,800,000 citizens. Jerry Dolezal's untiring efforts and accomplishments will not stand alone in the memory of those who have been privileged to know and associate with him, as have I. For, indeed, there was a warm personal side to this man, which none of us will forget. To have known him was to love and respect him.

He was a man of deep conviction, yet never ill-tempered or intolerant. The gentlemanly qualities he possessed were recognized by friend and political foe alike.

He lived by the precept he so often quietly voiced to his political proteges, of which I am proud to be one, "Promises are made to be fulfilled for a man is judged by the way he keeps his word."

Just as Commissioner Dolezal was an inspiration to so many while he lived, so may his memory provide an inspiration to those who will follow in pursuing the hopes and ideals of an outstanding leader and an esteemed gentleman.

Goethe Day

EXTENSION OF REMARKS

OF

HON. JOHN F. SHELLEY

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. SHELLEY. Mr. Speaker, on August 28 we observe the anniversary of the birth of Germany's greatest poet, Johann Wolfgang van Goethe. Goethe's name symbolizes the highest achievements of culture and humanism. He was as aware as any writer in his century of the dark abyss of the human heart and the follies and tragedies of history. Yet unlike many of his contemporaries, this knowledge did not make him despair. Although he lived in an age when the word "culture" suggested the sheltered life, the ivory tower, and frequently contempt for the problems of the real world, Goethe participated in active and creative pursuits. A man who has become immortal because of his magnificent prose and poetry, he also devoted himself to science, to the history of art, and to the administration of the state in which he lived—all without compromising his independence as an artist. "Never, in my vocation as an author," he once said, "have I asked what would the people like and how I could (through my poetry) serve the whole. I have always striven to improve myself, to raise the standard of my personality, and to express only that which I recognized as good and true."

The noble cultural tradition of Goethe has been perpetuated by many German artists. As evidence of the continued influence of Goethe's devotion to culture I need only mention two artists who have lived in my own State of California, Arnold Schoenberg and Otto Klemperer. Both the composer, Schoenberg, and the conductor, Klemperer, came to California as exiles from Nazi Germany. Schoenberg was known throughout the musical world for his revolutionary use of "atonal" scales in his music; Klemperer, because he was one of the great conductors of the century. These two great artists have demonstrated, in the spirit of Goethe, that the German people remain leading contributors to the world's music. Like the great 18th century poet, also, their lives and works indicate that art and music knows no national boundaries.

Fiftieth Anniversary of Girl Scouts of the U.S.A.

EXTENSION OF REMARKS

OF

HON. DANTE B. FASCELL

OF FLORIDA

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. FASCELL. Mr. Speaker, Miami Beach is one of the communities in Florida's Fourth District, which I am privileged to represent. I need not go into its justly famed beauties and attractions which draw visitors from every State in the Union and practically every country in the world. None of these visitors will be more hospitably welcomed as bestowers of distinction and honor to the community than the members of the Girl Scouts of the United States of America, who will hold their national convention at Miami Beach next October 21 to 25. Seven thousand delegates and vistiors are expected to attend this triennial meeting.

Mr. Speaker, as you and my colleagues know, the Girl Scouts of the U.S.A. is chartered by the Congress and all members receive an annual report. After examining the material which recently came to me, I am prompted to pay a sincere tribute to this fine organization and the contribution it has made to our Nation and to the youth of the world.

A gentlewoman of the Deep South, Juliette Gordon Low of Savannah, Ga., organized the first troop of 12 girls on March 12, 1912. Since that time there have been a total of 18½ million members of the Girl Scouts—more than 14 million girls and 4 million adults. The guiding purpose is to help girls develop as happy, resourceful individuals, willing to share their abilities as citizens in their homes, their communities, their country and the world. Membership is open to all girls between the ages of 7 through 17 years who accept the Girl Scout Promise and Laws. Membership dues are $1 per year. Adults, both men and women, are eligible for membership if they subscribe to the Promise and Laws and pay the same dues as girls. They work as leaders, council members, troop committee members, program consultants, finance advisers or in other positions of voluntary leadership.

The type of citizenship engendered by Girl Scout training is clearly shown forth by the Girl Scout Promise:

On my honor, I will try: To do my duty to God and my country, to help other people at all times, and to obey the Girl Scout Laws.

The Girl Scout laws, designed to inspire the highest ideals of character and conduct, outline a code of behavior for young people which will stand them in good stead as citizens and mature adults. They are laws of which all of us can afford to be reminded:

A Girl Scout's honor is to be trusted.
A Girl Scout is loyal.
A Girl Scout's duty is to be useful and to help others.
A Girl Scout is a friend to all and a sister to every other Girl Scout.
A Girl Scout is courteous.
A Girl Scout is a friend to animals.
A Girl Scout obeys orders.
A Girl Scout is cheerful.
A Girl Scout is thrifty.
A Girl Scout is clean in thought, word, and deed.

Through Girl Scout activities, girls put these laws into action and learn to develop a wide range of personal interests. The program activities are based on 11 fields of interest: Agriculture, arts and crafts, community life, health and safety, homemaking, international friendship, literature and dramatics, music and dancing, nature, out-of-doors, sports and games.

All Girl Scout activities are designed to carry out the motto: "Be Prepared" and to help the girls develop ability to cope with a variety of situations, to meet emergencies, and to lead stimulating and constructive lives.

The very essence of the democratic ideal is set forth in the Girl Scout slogan, "Do a good turn daily." Service to an individual, a group or the community is the inherent principle of scouting.

The troop is the basic unit of government in scouting. The girls meet weekly with adult leaders to plan their activities. There are a total of 163,000 Girl Scout troops in the United States and at U.S. military and civilian locations in 48 countries around the world. Scouts belonging to U.S. troops overseas are called TOFS—Troops on Foreign Soil.

As may well be expected, the strength and growth of the Girl Scouts of the United States is the result of judicious guidance and foresight. Its program throughout its 50-year history—the 50th anniversary is being celebrated this year—has been shaped by the changing needs of girls in a changing society. Although the fundamental values of Girl Scouting have remained unaltered there has been a series of adaptations in the program to keep it current. The Girl Scout leadership is deeply aware, in this era of unrest and mounting social problems, of its responsibility to provide for all girls the most stimulating and constructive program possible, geared towards the development of fine character and good citizenship.

This coming September 9, there will simultaneously be released four new Girl Scout handbooks, launching a new contemporary design in the program. This will provide a total and continuous program of informal education and recreation for girls from 7 through 17. It is based on the most recent findings in the fields of child psychology and curriculum development. This program provides for four age levels—instead of the former three—to correspond with the development of today's girls:

Brownies, age 7 and 8.
Juniors, age 9, 10, 11.
Cadettes, age 12, 13, 14.
Seniors, age 15, 16, 17.

Each age level has its own handbook and the progression from the Brownie to the Senior handbook reflects the increasing ability of girls, as they grow from 7 through 17, to understand more difficult concepts and accomplish more difficult tasks.

Each of the four age levels will build on what has gone before, so that a girl who joins at age 7 can continue to grow in Girl Scouting through the age of 17—always with a sense of widening horizons and new goals for endeavor. At the same time, the structure within each age level will be such that a girl can begin in Girl Scouting at any age from 7 through 17, joining in the activities of her troopmates without going back to fulfill requirements the others have finished.

At each level, learning what lies ahead in Girl Scouting will be an integral part of the program, and older girls will be expected to assume definite responsibility for showing and explaining activities to troops of the next younger group. In these ways Girl Scouts of all ages will learn to recognize that the meaning of Girl Scouting in their lives can grow deeper with every year of membership.

In addition and as a corollary of the new four-step program, Girl Scouts of the U.S.A. are also implementing a new council coverage plan designed to provide the strong councils, by merger and consolidation, which are essential to realization of the infinite possibilities of the 1963 redesigned program. These local councils will touch border to border, thus achieving total coverage of the United States. At the present time, approximately 90 percent of the girl membership is in councils where coverage has been completed or in councils which have voted their willingness to become part of a changed or enlarged jurisdiction.

Among the benefits credited to the plan are greater camping opportunities, improved leadership training, increased volunteer participation and more efficient use of funds through elimination of duplication. It is estimated that when this plan is completed there will be no city, village, or hamlet in this country that is not included in the jurisdiction of a Girl Scout council that has the potential of personnel, finances, and access to community resources to carry out its own total responsibilities and provide a Scouting program of opportunities diversified and challenging enough for the present and the future.

With the streamlined approach and "new look" of the coverage plan, Girl Scout membership has increased since 1946 from 958,000 to 2,688,000, and adult membership from 256,000 to 747,000. Lone troops in the United States now represent only 1 percent of the total girls membership as compared with 14.8 percent 17 years ago.

Under council coverage, Girl Scouting continues to have firm and enduring roots in the neighborhood, whatever the size of the council jurisdiction. Girls still experience the personal satisfaction of troop activities in their own communities, plus the exhilarating and rewarding camaraderie provided through joint activities with troops from quite different areas which, however, are within the same council jurisdiction. Completion of council coverage has been set for December 1963, to coincide with the initiation of the new four-step Girl Scout program.

Mr. Speaker, it is refreshing and encouraging in these troublous times to be reminded of an organization of young people and adults who are daily working to express more fully the ideals of our great democracy and to contribute their share toward freedom and peace for all nations on earth. Such, I believe, is the contribution made by the leaders and members of the Girl Scouts of the U.S.A.

Income Sources

EXTENSION OF REMARKS

OF

HON. JAMES G. O'HARA

OF MICHIGAN

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. O'HARA of Michigan. Mr. Speaker, it has been called to my attention that a number of my colleagues led by the gentlewoman from Oregon [Mrs. GREEN] earlier in this session inserted in the CONGRESSIONAL RECORD statements of their sources of income. They did so because they believed that the public was entitled to such information from its elected representatives who daily must make decisions affecting a wide variety of interests. I wish to commend my colleagues for having taken such action. I believe as they do that such disclosures are in the public interest.

My principal income is derived from my congressional salary and allowances. My only other sources of income consist

of rent received on my Washington residence during the months of each year that my family and I spend at our home in Michigan, dividends of less than $50 a year from a small investment in American Telephone & Telegraph stock, and speaking fees of less than $1,000 per year received by me from various organizations outside of my own district to which I have spoken.

Second District Questionnaire Results

EXTENSION OF REMARKS

OF

HON. JACK WESTLAND

OF WASHINGTON

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. WESTLAND. Mr. Speaker, one of the best means available for me to determine the views of my constituents is the annual questionnaire I mail to each household in my district. I am pleased the people of the second district have the interest they do in national and world affairs.

Of the 92,500 questionnaires I mailed, 12.7 percent were returned, many with interesting and constructive comments. Actually the percentage of returned questionnaires was higher when you consider that some could not be delivered because of address changes. If you allow for this nonforwardable mail, 14.4 percent of the questionnaires were answered.

Several persons who answered my poll asked me why I had not sent an extra copy for their wife or husband. I sent only one to each household because it is impossible to determine how many adults reside at a given address. These addresses were obtained from the various telephone directories in the district. However, if there are those who would like to have additional copies of the questionnaire, I shall be happy to send them.

When the answers to my questionnaire reached my office, Mr. Speaker, they were grouped into six categories by occupation. These categories included business, farmer, labor, professional, white collar, and miscellaneous. This last group included unsigned questionnaires, housewives, retired persons, students, and others who could not be readily classified in one of the other categories.

As I said before, many questionnaires were returned with interesting and constructive comments. I am grateful to those who took the time and the trouble to comment in detail on the issues and problems we face. The ratio of answers with comments was about 3 in 7. These remarks are a great help to me in determining how best to represent the people who sent me here to represent them. Of course, I wish there had been enough time for me to give a more detailed reply to each person who answered the questionnaire, for I should like to have done so.

Mr. Speaker, the views of the majority who answered generally parallel my own. I know the Members of Congress will be interested in the outcome of my questionnaire, so under leave to extend my remarks, I include the detailed results in the RECORD. The figures I use here represent percentages, not the number of persons who answered a particular question:

1. In order of importance to you, number the six most important issues today:

	Business	Farmer	Labor	Professional	White collar	Miscellaneous	All
National defense	20	14	23	14	20	20	19
Foreign policy	12	15	8	22	16	15	15
Cuba	17	10	13	10	13	10	12
Federal encroachment	15	21	7	8	10	12	11
Budget	11	4	8	13	9	10	9
Taxes	10	7	10	7	10	8	9
Employment	6	1	14	3	8	6	7
Education	3	1	4	13	4	5	6
Nuclear test ban	4	1	5	4	4	3	4
Medical care	(1)	3	2	(1)	2	6	3
Farm problems	(1)	16	2	(1)	(1)	1	2
Berlin	(1)	(1)	(1)	(1)	(1)	(1)	(1)
De Gaulle	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Vietnam	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other	3	5	3	4	3	4	3

[1] Less than 1 percent.

2. The President has proposed cuts in income taxes, but at the same time has submitted a $12 billion deficit budget. Should Congress (A) cut taxes regardless of the deficit; (B) cut taxes only if spending is reduced; (C) balance budget and reduce national debt?

	A	B	C
Business	12	52	36
Farm	12	45	43
Labor	17	42	41
Professional	11	55	35
White collar	13	51	36
Miscellaneous	18	39	43
All	14	47	39

3. Should Mount Baker and Snoqualmie National Forests areas continue to be operated under the multiple-use concept or should they be restricted to recreational use only?

	Multiple use	Single use
Business	83	17
Farm	79	21
Labor	81	19
Professional	77	23
White collar	72	28
Miscellaneous	75	25
All	78	22

4. De Gaulle has refused the President's offer to give the Polaris submarine to France. Should we: (A) Pressure France to accept our Polaris; (B) sell some subs to NATO; (C) assign them to NATO with multination control?

	A	B	C
Business	10	30	60
Farm	7	42	51
Labor	8	36	56
Professional	4	31	65
White collar	4	36	60
Miscellaneous	9	25	66
All	7	32	61

5. Should the U.S. contribute to United Nations funds from which it draws cash to pay for programs extended to Cuba such as the agriculture project?

	Yes	No
Business	13	87
Farm	12	88
Labor	14	86
Professional	34	66
White collar	27	73
Miscellaneous	19	81
All	20	80

6. Do you favor a voluntary medical care program for our senior citizens over a compulsory program?

	Yes	No
Business	85	15
Farm	83	17
Labor	85	15
Professional	82	18
White collar	73	27
Miscellaneous	76	24
All	79	21

7. Should we revise our military and economic assistance program to cut off so-called neutral countries which receive Russian aid?

	Yes	No
Business	76	24
Farm	86	14
Labor	81	19
Professional	62	38
White collar	73	27
Miscellaneous	76	24
All	75	25

8. Do you favor establishment of a Domestic Peace Corps?

	Yes	No
Business	44	56
Farm	48	52
Labor	51	49
Professional	52	48
White collar	45	55
Miscellaneous	45	55
All	47	53

9. Should the U.S. take a firmer stand toward Cuba, even at the risk of war?

	Yes	No
Business	88	12
Farm	86	14
Labor	84	16
Professional	82	18
White collar	88	12
Miscellaneous	78	22
All	83	17

10. Should Congress pass my bill to place import quotas on Canadian lumber?

	Yes	No
Business	79	21
Farm	85	15
Labor	84	16
Professional	67	33
White collar	74	26
Miscellaneous	76	24
All	77	23

11. Do you favor an increase in earning limits of social security recipients?

	Yes	No
Business	78	22
Farm	72	28
Labor	80	20
Professional	79	21
White collar	81	19
Miscellaneous	66	34
All	76	24

Mr. Speaker, the results again show that many people of my district are concerned with national defense. Closely tied to this issue is foreign affairs which ranked second. However, the thinking of the people back home is shifting. Thirty-six percent rated national defense the top issue in 1961. Last year 42 percent chose defense as the key issue. This year the results show that 19 percent selected national defense for the No. 1 spot.

On the other hand, foreign affairs received only 8 percent of the vote in 1961 and only 6 percent in 1962. This year, foreign policy polled 15 percent and Cuba 12 percent. This indicates to me, Mr. Speaker, that there is growing concern in my district over the way the foreign affairs of our Nation are being run.

Also, there is growing concern over Federal encroachment, which ranked third this year, having moved up from fourth place in 1962. I received a large number of comments related to this issue as well as comments on national defense, spending and foreign affairs.

The fact that taxes and the budget ranked as fifth most important issue, that 47 percent believe taxes should be cut only if spending is reduced, and that 39 percent believe the budget should be balanced is a real strong indication the people of my district see the relationship between fiscal responsibility and a sound dollar.

Employment ranked sixth this year, having replaced education and medical care of previous years as most important issues. All of us recognize the problems created by unemployment. I hope efforts can be made in my own district to level the peaks and valleys caused by seasonal fluctuations.

Mr. Speaker, the majority in each category in effect expressed the same view toward all major issues. As I have pointed out in the past, this means the people of the Second District are in agreement when it comes to what is good for our country.

Statement in Support of S. 108, Making Columbus Day a Legal Public Holiday

EXTENSION OF REMARKS

OF

HON. T. A. THOMPSON

OF LOUISIANA

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. THOMPSON of Louisiana. Mr. Speaker, the story of Christopher Columbus is an inspiration to all men. His intellectual, physical, and moral courage; his persistence in planning and carrying out his ambitious enterprise against apparently overwhelming odds; the vast scope and far-reaching consequences of his discovery—all are surely worthy of commemoration in the most thorough and wholehearted fashion. A great majority of the States, amounting to almost four-fifths of the States of the Union, and representing a preponderance of the population of the United States, already observe the anniversary of Columbus' landing by the closing of banks and public offices, and by appropriate community ceremonies. It is surely proper that the will of the people of the United States, thus visibly and unmistakably expressed, should be carried out by a corresponding observance on the part of the Federal Government.

Such public, national recognition paid to Christopher Columbus would be of value as a gesture of solidarity with our Latin-American neighbor republics, most of which observe Columbus Day as a national public holiday. It would, further, be a significant recognition of the important part played by Spanish and other Latin explorers, colonists, missionaries and settlers, in the formation of the United States, and, as such, would be warmly welcomed not only by the Latin elements in our population but by all of us. I strongly recommend, therefore, that S. 108, making Columbus Day a legal public holiday, be given an early hearing by the Committee on the Judiciary, and urge that both the committee and the Senate take prompt and favorable action upon the bill.

Legal Effect of Partial Test Ban Pact Only That of Unilateral Moratorium Under Provisions of Soviet Constitution

EXTENSION OF REMARKS

OF

HON. CRAIG HOSMER

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. HOSMER. Mr. Speaker, article IV of the partial test ban treaty negotiated in Moscow provides the treaty shall be of unlimited duration but provides for withdrawal if "extraordinary events" are believed to "have jeopardized the supreme interests" of the withdrawing country. The treaty stipulates 3 months' advance notice of withdrawal.

The provisions of article IV of the treaty are in direct conflict with article 49–0 of the Soviet Constitution which entitles the Soviet Government to abrogate any treaty instantly, with or without cause.

There is no provision of Soviet law which provides for the Soviet Constitution to be overridden by the provisions of a treaty.

Based on article IV's inconsistency with constitutional provisions, the Soviets may at any future time declare the treaty invalid from its beginning and the effect of such declaration will be instantaneous.

As an alternative, the Soviet Government, acting in secret session of the Presidium of the Supreme Soviet of the U.S.S.R. may, under authority of article 49–0, denounce the treaty. This act would operate instantaneously to release the Soviet Government of its obligation to deliver 3 months' advance notice or withdrawal, or any notice at all. Under these circumstances, the U.S.S.R. could keep secret from all other parties its renunciation of the obligations of the treaty until such time as appeared most advantageous to the U.S.S.R. suddenly to reveal it.

Under either alternative, all parties to the treaty other than the U.S.S.R. in actual practice are committing themselves fully to the pact in exchange for what, in actual practice, amounts to no more than a unilateral moratorium on the part of the Soviets.

An American Manifesto

EXTENSION OF REMARKS

OF

HON. BRUCE ALGER

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. ALGER. Mr. Speaker, under permission to extend my remarks in the RECORD, I would like to include a magnificent speech, in the true American manner, by our colleague from New Hampshire, LOUIS C. WYMAN. Congressman WYMAN's "An American Manifesto," sets forth in clear terms what is needed in the United States to replace the tolerance of the Communist philosophy so alien and dangerous to our freedom.

AN AMERICAN MANIFESTO

(Address of Hon. LOUIS C. WYMAN)

Reverend clergy, fellow Legionnaires, and distinguished guests, I appreciate the honor of your invitation to address you briefly this evening. I assure you my remarks will not be longer than 20 minutes.

The country seethes with growing pains. The world has a similar affliction. Men of conviction and sincerity differ markedly in their opinion as to the course we should pursue. It is to the problem of the general direction of our national fortunes that I address myself tonight.

The American Legion is a great organization. Its recommendations concerning national policy are heard in Washington. Many of them are enacted into law by the Congress. Many more have been adopted by the executive branch of the Government. The contributions of the Legion to American thought and action, particularly with respect to its firm stand against subversion from within and aggression from without, have been invaluable. I congratulate you all for a constructive and dynamic record of pro-Americanism. We could use more American Legion policy in the conduct of national affairs.

We have witnessed profound changes in the United States in recent years. There has been a great migration from the fields and the farms to the cities, a tremendous expansion of population, vast and rapid advances in the field of scientific technology, in space, in television, in communica-

tions, in weapons of war. We have devised all manner of horrible means of destruction, from hundred-megaton atomic bombs to nerve gases and bacteria. Plans to land a man on the moon are tempered by a realization that in the process of getting there we must maintain military supremacy in outer space between the earth and the moon or we may never be allowed to get to the moon at all.

All these things are greatly complicated by the fact that they cost added billions and billions of dollars when the Nation is already burdened by a huge national debt of over $305 billion, which the Congress is regularly asked to increase. Many of us believe that in good times we should operate the Federal Government on a pay-as-you-go basis and make some reduction in this huge national debt. Yet, there is little evidence that either the executive branch or the liberal majority of the Congress is prepared to risk popular disfavor by rejecting expensive program after expensive program that will increase this debt perhaps to a point of no return.

Huge western farmers continue to demand to be paid for farm products they do not grow. Particular groups, many of them justifiably so, urge that they should receive Federal payments and benefits on a grand scale without regard to the effect upon the Treasury. The great cities plead for hundreds of millions of Federal dollars for mass transit facilities. There is rising demand for Federal aid to education of billions more. In our efforts to impress peoples in faraway lands of the sincerity of our desire to achieve understanding and world peace, we have established a national Peace Corps of volunteer citizens that in the present budget involves a cost of more than $100 million. It is suggested that, to meet the challenges of juvenile delinquency, we should now have a domestic peace corps costing more millions. Foreign aid rolls on to the tune of billions more.

In the meantime, interest of the national debt alone exceeds $10 billion a year, each year, and our defense appropriations are at a level in excess of $50 billion a year.

With but $15 billion worth of gold left at Fort Knox, foreign creditors hold $24 billion worth of claims on this gold. Our balance of payments—the ratio between what we pay for goods imported and what we receive for goods exported—is steadily declining.

This is a serious, even urgent, fiscal crisis. It is worse in detail—which time does not permit. But I would observe that if we continue much longer to spend more than we take in, to operate the Federal Government at a huge deficit, to refuse to face up to the requirement that government, to avoid bankruptcy, must be operated as must any business or home, we invite runaway inflation and advance the day of probable devaluation of the dollar. The disastrous effect of either of these eventualities is written large on the pages of history in what has happened in other nations that have taken such a road. The caution light is clearly lit and the red light is not far away.

In the meantime, on Monday of this week, in a series of opinions in a single case running to more than 130 pages, the U.S. Supreme Court solemnly announced that, in its view, the American Constitution does not permit required recitation of the Lord's Prayer in the public schools, even under circumstances wherein any student who so wishes may refrain from participation in the prayer. This opinion follows the outlawing by the Court of another voluntary prayer prescribed by the board of regents in the New York school system. To me, the pattern of such decisions is a portent of disaster for America.

In the Congress we were asked to comment upon this decision and I observed that "In a morass of legal verbosity the High Court has lost perspective and now even humility before God. Americans are deeply concerned."

While the Constitution clearly prohibits a state religion, it is urgently important that we not become an irreligious state.

In the quiet hours before going over the top—to use the words of Arthur Guy Empey—or in the moment of crisis as the engines of a bomber warmed up for a mission over Germany in the last war, or in the silent moments before D-day in Normandy, or even in Cooper's space capsule, each of these true American heroes turned to prayer for comfort and for confidence. Our Pledge of Allegiance affirms that we are one nation under God. The daily sessions of the House and Senate are opened with prayer. Perhaps the greatest strength of this Nation, composed as it is of many differing theologies, is that it is humble in recognition of a Divine Being.

Refinements in the field of jurisprudence derived from a constitutional prohibition that Congress or the States shall make no law respecting an establishment of religion or prohibiting the free exercise thereof, ought never to indulge themselves in the impertinence of the provocative suggestion that young people in the public school system should not also be encouraged, if they want, to recognize God.

Despite protestations of indifference based on technicality that we may not have a state religion, we are a Christian nation under God, dedicated to religious freedom and to belief in God. The Court's unnecessary restraint upon voluntary recitation of prayers in the public schools is, to me, an invitation to disintegration, because implicit in such decision is a measure of material self-confidence that approaches a condition of cockiness before the great dispenser of infinite justice. It is sort of like asking for it.

As I said on the floor of the House earlier this week:

"The real question in determining the eventual success or failure of democracy in the world is not whether God is on our side but whether we are on God's side. The pattern of these decisions of the Supreme Court do not help us to be on God's side."

Seven years ago, I had the privilege of addressing you at Newport, N.H., on June 23, 1956. In that talk, I referred to several problems that were then of grave concern to the country and particularly to the American Legion. These included (1) Communist military supplies to Nasser; (2) Soviet buildup around the world toward a shift in the balance of power to the Soviet Union; (3) the ineffectiveness of the United Nations; (4) the stalemate in Korea and violations of the armistice thereafter by the Communists; (5) Communist military buildup including at that time from Janes Fighting Ships more than 400 submarines, 20,000 bombers, and so on, while the cocktail party diplomatic corps urged further appeasement upon this country; (6) that neutrality in the face of communism was an invitation to disaster; (7) that our example in refusing to help in Hungary and elsewhere was scarcely encouraging to those nations undecided between the East and the West; (8) that a Soviet steamship in the Caribbean, loaded with arms and ammunition and destined for a country in Central America, should have been turned around or sunk; (9) that in the face of communism's phony peace offensive lay the greatest danger as more and more Americans might be persuaded to believe it. These concerns then apparent are of even greater magnitude today—7 years later.

I quoted from the great English scholar, Macaulay, who a hundred years ago said of America:

"Either some Caesar or Napoleon will seize the reigns of government with a strong hand; or your Republic will be as fearfully plundered and laid waste by barbarians in the 20th century as the Roman Empire was in the 5th; with this difference, that the huns and vandals who ravaged the Roman Empire came from without, and that your huns and vandals will have been engendered within your own country by your own institutions."

Friends, the urgence of decisively meeting the Communist thrust is imperative. Those who believe that by turning the other cheek we can assure peaceful coexistence in perpetuity are living on borrowed time in a fool's paradise.

Let's face some dismal facts. We have been losing every year ever since the end of World War II, with a few small exceptions. What we have claimed as victories have, at best, only amounted to holding an uneasy status quo. We surrendered China through a policy of coalition governments. The stalemate in Korea was, in fact, a defeat for Korea is indefensible today. In calling off the British and the French in their defense of Suez, we created the Soviet protege, Nasser. In Hungary, we talked big and then let thousands of courageous Hungarians die like sheep in the face of Russian tanks. With the U-2, we had no plan for the contingency of a crash or a shoot-down.

So inadequate was our policy here that we even lied when first faced with the pictures. Now, we have Communist guns, bombs, planes, and military personnel in Cuba. When the President courageously imposed a quarantine last fall the country cheered—only to see this position quickly abandoned without curing the cancer—a cancer that is rapidly spreading in this hemisphere.

The tragedy of most of these things is that they never needed to have happened had we been willing to do then what we must do eventually, to risk war in standing firm for peace and freedom. Had we done this earlier the probabilities of war were minimal. Even today, I am convinced that if we show the Soviet Union we are willing to fight for freedom and justice, for our allies, there will be no war. This is the best way to avoid war. But human beings what they are and morale being what it is, there comes a time when if one side or one team loses long enough the will to win evaporates. I wonder if we have lost the will to win. I wonder if, instead, there has developed a new national policy of coexistence with the devil. We all know—or should know—what such a policy will mean in the long run. Certainly it is not victory.

The Communists today, whether their leader's name is Khrushchev or Stalin, use every event, every happening, every unfortunate incident in the world to encourage dissension, distrust, and conflict within the Western World and its allies. They charter allied ships, they trade in strategic materiel around the world, they subsidize Canadian purchases of chickens for transshipment to Cuba, they profit from the Cuban sugar market in world trade, they erect pipelines to ship oil to European markets at less even than their slave labor cost to undersell and obviously to ruin American companies. All this and more is their economic warfare which, accompanied by their propaganda of the big lie and the massive indoctrination of propaganda that American imperialism aims at the destruction of the Soviet Union through germ warfare if need be, intentionally aggravates an explosive world situation.

They even indoctrinate the young people of other nations with the same anti-American hatred venom. Young Cubans are sent in Soviet ships to Russia for their indoctrination in hatred toward us.

Here in America, what has been our policy? We have had Yugoslav Army officers attend our Command and General Staff College at Fort Leavenworth, Kans.—officers whose military discipline and philosophical training constitutes them captives of the Communist bloc, whether or not they are members of

the Communist Party. We trade with Communist satellite nations and accept their products for sale in our stores in competition with our own; we abandon the Monroe Doctrine and permit Communist military aggression in this hemisphere.

On June 10 the President of the United States, in announcing new talks with Britain and Russia on atomic test-ban agreement, said: "History teaches us that enmities between nations as between individuals do not last forever * * *. Let us reexamine our attitude toward the Soviet Union."

With all due respect to the Office of the Presidency—of whatever political persuasion—I say to you tonight that this is perilous talk. It is so contrary to historical fact in its dreaminess that it is frightening. It reflects advices and advisers that endanger the national security.

We are in a struggle to the death with communism, everywhere in the world. No amount of being nice to Communists will alter their fanatical goal of American destruction. It cannot, for such is the essence of Marxist-Leninist doctrine. It is not our attitude toward the Soviet Union that is at fault. It is the Soviet Union's Communist program for subversion and conquest of the free world. If an American President does not know this, something is radically wrong and at pretty high levels.

We do not know what potential destructive capacity there is in Cuba. Make no mistake about this. We cannot know unless we take a look. Unless we inspect. There has been no inspection, and apparently it is not the official policy of the United States to demand it. These facts are an awful indictment of a government, no matter its party name, that professes to accept the responsibility for leadership of the American people.

On several occasions, I have met privately with a group of Congressmen of both political parties for discussions with leaders of this country, past and present, to discuss the possibility of devising a workable program to meet the Cuban problem. The other day, a high official of my political party suggested that it was poor politics for me to work with members of the opposition party to achieve such a program, on the basis that if the problem remained unsolved in 1964 it would be a great issue for Republicans. I told this man, and I say to you here tonight, that I represent all of the people of my district and that when it comes to the security of America and the survival of this Nation I am not going to think or act in terms of political advantage. If we can devise a satisfactory, workable, reasonable, practical solution, I will not hesitate to join other members on both sides of the aisle in urging it upon the President at the earliest possible moment. We cannot afford to wait until 1964. Nor will I hesitate to support the President if he acts to implement it, regardless of political considerations. To me this is of the essence of responsibility in government.

I know you are asking what kind of a program are they thinking of. What is a possible solution? I will tell you that, on the drawing boards, on the working sheets at the moment we have outlined a tentative start. It is as follows:

(a) Firm determination and announcement to our people and to the world of the determination that we are in this worldwide struggle called the cold war—to win.

(b) Demand of Castro full and free inspection of the Island of Cuba on a continuing basis at a very early date, with the announcement that if our inspection teams are refused we will inspect by force.

(c) Announcement and adherence to a policy that the United States of America will not tolerate Communist governments in this hemisphere and will use force if necessary to prevent them.

You have been patient and I appreciate your courtesy. I share with you an abiding conviction that we live in the most wonderful land in all the world, that we are fortunate indeed to be American citizens, and that if we are to insure for those to follow us anything like the blessings which the good Lord has seen fit to allow us, we must prepare now to stand firm and decisively for freedom. The American people owe much to the American Legion for its dedication to this cause.

Aid to Education Without Federal Interference

EXTENSION OF REMARKS

OF

HON. JOHN P. SAYLOR

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, August 1, 1963

Mr. SAYLOR. Mr. Speaker, many people in my district have written to me expressing criticism of the U.S. Supreme Court ban on religious practices in public schools. The same position has been reiterated by many clergymen who are concerned over the outlawing of the Lord's Prayer and Bible reading in our public school system. Catholic, Protestant, and Jewish spokesmen have been vehement in denouncing the strange dictum of the highest court of our land.

One of the most thought-provoking editorials prompted by the Court decision appeared in the Washington Evening Star on June 17. I quote herewith its concluding paragraph:

> In the process God and religion have all but been driven from the public schools. What remains? Will the baccalaureate service and Christmas carols be the next to go? Don't bet against it.

It is not a pleasant notion, Mr. Speaker, but it is a question that must be faced realistically in view of the assortment of Supreme Court decisions that seem to give emphatic preference to atheism and agnosticism over the philosophy that there is a Divine Being and Americans should be encouraged to worship Him. In view of this opprobrious inclination on the part of the Court, supporters of any program to extend the power of the Federal Government—and in particular those who advocate Federal aid to education—should make a cautious and extensive reappraisal of their position.

In opposing Federal aid to education, I have over the years warned that bureaucratic control would inevitably follow bestowal of U.S. funds to State and local school systems. This consideration is in itself sufficiently repugnant to reject any legislation that would permit Washington bureaucrats to get a foot in the door of our public and parochial school systems. Such a plan is all the more odious in view of the truism that all funds which come from Washington represent but a portion of revenue collected. In every instance an important percentage of the total must be deducted to pay the salaries of the hordes of Government workers and for the maintenance of their plush offices. From the time that the so-called school construction bill was introduced in 1957, I insisted that the more reasonable and more economic way to provide necessary school buildings and better teachers' salaries would be a tax reduction to enable our citizenry to meet these problems at the local level.

The economic consideration holds as true today as it did in 1957, or in 1907, or as far back as you may care to go. For this reason I have introduced H.R. 5680, which is now before the Committee on Ways and Means. It would amend the Internal Revenue Code of 1954 to allow a taxpayer increased personal exemptions for his children while they are attending a school. The deduction for the parent of a child in grade school or high school would amount to $800 and the parent of a college or university student would be allowed a deduction of $1,000. This increase from the usual $600 exemption would apply to parents of all students, regardless of what schools they attend—public, parochial or private.

Mr. Speaker, the job of providing for the education of America's youth was not assigned to the Federal Government by our Founding Fathers. It is true that financing our schools has become more burdensome with the passing of years, and parents who choose to send their children to denominational institutions encounter exceptional obstacles because they are in effect contributing to the support of two school systems. Behind these fiscal difficulties is the very bureaucracy which so many other aid-to-education measures propose to enlarge. The average parent has experienced less buying power with each dollar because of inflation created by a profligate and irresponsible Federal Government. Inflation, in addition, serves as a cruel encumbrance on retired teachers and other pensioned men and women as well as on everyone who depends upon savings or insurance to finance his children's education or to see him through his twilight years. High taxes are a further detriment to his ability to provide the necessities of life, including an education for his children.

H.R. 5680, in allowing the parent to retain a greater share of the wages he earns, opens the way for him to support the schools of his community and gives him a little more of the wherewithal to send children to college.

Mr. Speaker, I have been confounded by the various bills introduced this year to allow increased exemptions from income tax in the cases of parents whose children are in institutions of higher learning but which completely disregard those boys and girls who are in grade school or high school. Unless the American parent can afford to support local primary and secondary schools and to pay teachers the high wages that they merit, there will be no need for colleges and universities. Our first responsibility is the grade and high school. They must be kept in good repair, we must continue to build them, laboratories and needed supplies must always be available, and the salaries of faculty members must never be permitted to lag. Too often there has been a poverty of prin-

ciple in the aid-to-education issue. Any legislation providing Federal grants would be particularly unfair to Pennsylvania, which must pay $1.23 to the U.S. Treasury for every dollar it receives in return, whereas Texas—whose economy is booming through Uncle Sam's multibillion-dollar defense and space programs—makes a 20-percent profit on every exchange with Washington.

H.R. 5680 invites a solution of our school problems. In the process, it will have a tendency to check the extravagance of an already too big bureaucracy, for it will make available for education a portion of the revenue that is now squandered without regard to the needs of the men and women back home who pay for the upkeep of the Federal Government.

I offer this legislation in substitute for the variety of bills to provide Federal money for school systems. One of the measures that has received particular attention this year is H.R. 320, whose supporter is the distinguished gentleman from New York [Mr. DELANEY]. Its provisions would include an annual appropriation of $20 to each school pupil for the purpose of defraying part of the cost of his education.

While I respect the intent of my friend from New York, I would challenge his approach as impractical if not inadequate, although I must commend him for his attempt to provide assistance for educational purposes without involving the Federal bureaucracy to the degree involved in many of the other proposed school programs. The Delaney bill nevertheless provides a measure of intrusion by the Commissioner of Education, thus opening the door to Federal prescriptions that could ultimately bring control by the Federal Government.

God and religion have all but been driven from the public schools. If parochial institutions become beneficiaries of Federal grants—that is, public funds—how could they expect to escape from a similar fate?

Outlaw religion in religious schools? Incredible, one might say on first impulse. Yet those who oppose recognition of God in public school systems would institute action to take Him out of parochial schools the minute that public grants were accepted. In the light of its current behavior, the Supreme Court would be inconsistent if it did not extend the prohibition of religious practices to every school and every school system receiving public funds.

Mr. Speaker, I believe that H.R. 5680 is the logical answer to these economic problems facing both the public, private, and parochial schools today. Through it, perhaps we can keep God in at least some of America's educational institutions.

SENATE

FRIDAY, AUGUST 2, 1963

The Senate met at 12 o'clock meridian, and was called to order by the President pro tempore.

The Chaplain, Rev. Frederick Brown Harris, D.D., offered the following prayer:

O Thou God and Father of us all, amid the national and global concerns which drain our strength and devour our hours, somehow, sometime, lest we lose our way, the necessity is upon us to take time for commerce and communion with the unseen and eternal where, in an oasis of quietness, there may be daily restored the inner resources of our pressured lives.

May the obtrusive secularism which assumes that we can nourish our souls on bread alone—the materialism which blocks the door of our hearts—be pushed back and the way cleared, that the highest and best may enter and meet no obstacle.

For those who here serve as representatives of the people who have put their trust in them, we pray for deliverance from the subtle lures of office and from the arrogance which lurks in power, knowing that when we forget Thee, whatever we attempt to build or to frame is labor lost, and that only in Thy will is our peace and is our victory.

We ask it in the dear Redeemer's name. Amen.

THE JOURNAL

On request of Mr. MANSFIELD, and by unanimous consent, the reading of the Journal of the proceedings of Wednesday, July 31, 1963, was dispensed with.

MESSAGES FROM THE PRESIDENT—APPROVAL OF BILL

Messages in writing from the President of the United States were communicated to the Senate by Mr. Miller, one of his secretaries, and he announced that on July 30, 1963, the President had approved and signed the act (S. 546) to authorize the Secretary of the Navy to grant easements for the use of lands in the Camp Joseph H. Pendleton Naval Reservation, Calif., for a nuclear electric generating station.

EXECUTIVE MESSAGES REFERRED

As in executive session,

The PRESIDENT pro tempore laid before the Senate messages from the President of the United States submitting several nominations, which were referred to the appropriate committees.

(For nominations this day received, see the end of Senate proceedings.)

MESSAGE FROM THE HOUSE

A message from the House of Representatives, by Mr. Bartlett, one of its reading clerks, announced that the House had disagreed to the amendments of the Senate to the bill (H.R. 6177) to amend section 2(a) of article VI of the District of Columbia Revenue Act of 1947 relating to the annual payment to the District of Columbia by the United States; asked a conference with the Senate on the disagreeing votes of the two Houses thereon, and that Mr. WHITENER, Mr. DOWDY, Mr. HAGAN of Georgia, Mr. BROYHILL of Virginia, Mr. HARSHA, and Mr. HORTON were appointed managers on the part of the House at the conference.

The message also announced that the House had passed a bill (H.R. 7500) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and administrative operations; and for other purposes, in which it requested the concurrence of the Senate.

ENROLLED BILL SIGNED

The message further announced that the Speaker had affixed his signature to the enrolled bill (H.R. 5207) to amend the Foreign Service Buildings Act, 1926, to authorize additional appropriations, and for other purposes, and it was signed by the President pro tempore.

HOUSE BILL REFERRED

The bill (H.R. 7500) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and administrative operations; and for other purposes, was read twice by its title and referred to the Committee on Aeronautical and Space Sciences.

REPORT OF A COMMITTEE SUBMITTED DURING ADJOURNMENT

Pursuant to the order of the Senate of February 11, 1963, Mr. HILL, from the Committee on Appropriations, reported favorably, with amendments, on August 1, 1963, the bill (H.R. 5888) making appropriations for the Departments of Labor, and Health, Education, and Welfare, and related agencies, for the fiscal year ending June 30, 1964, and for other purposes, and submitted a report (No. 383) thereon, which was printed.

LIMITATION OF STATEMENTS DURING MORNING HOUR

On request of Mr. MANSFIELD, and by unanimous consent, statements during the morning hour were ordered limited to 3 minutes.

THE PROPOSED NUCLEAR TEST BAN TREATY

Mr. MANSFIELD. Mr. President, the proposed nuclear test ban treaty holds two promises for the welfare of the people of the United States and the world. One is immediate and tangible. The proposed treaty offers the hope that there will be an effective curtailment of the pollution of the atmosphere—the environment in which all human life is lived—by manmade radioactivity. While scientists may argue about the extent of the danger, they are all agreed