period for the transaction of routine morning business of not to exceed 15 minutes, with statements therein limited to 5 minutes each, at the conclusion of which the Senate will resume the consideration of the unfinished business, S. 354. The pending question at that time will be on agreeing to the amendment by the Senator from Washington (Mr. MAGNUSON).

Somewhere between the hour of 3 p.m. and 3:30 p.m. on Monday—incidentally, prior thereto, there may be a vote on the Magnuson amendment or on amendments thereto—at some point between the hour of 3 p.m. and 3:30 p.m. on Monday, the unfinished business will be temporarily laid aside and the Senate will proceed to the consideration of S. 2986, a bill to authorize appropriations for carrying out the provisions of the Economic Policy Act of 1972, as amended.

Debate will ensue thereon on Monday for the remainder of the day, and amendments may be offered to the measure. Yea-and-nay votes could occur on such amendment or amendments. In any event, at the close of business on Monday, the bill (S. 2986) will be temporarily laid aside until the disposition of the unfinished business, the National No-Fault Motor Vehicle Insurance Act, S. 354, at the hour of 3 o'clock p.m. on the following Wednesday.

On Tuesday, the Senate will resume the consideration of th unfinished business, S. 354, the National No-Fault Motor Vehicle Insurance Act, with yea-and-nay votes occurring on amendments thereto, and possibly on the disposition of the bill.

On Wednesday, if the bill (S. 354) has not been disposed of prior to that time—which conceivably could happen before that time, because in that agreement we allowed for a motion to recommit or a motion to table at any time, so that bill could possibly be disposed of prior to the hour of 3 o'clock on Wednesday, though it is unlikely—but in any event, on Wednesday, if, prior thereto, the bill (S. 354) has not been disposed of, debate will resume thereon, with yea-and-nay votes possible occurring on amendments thereto, and if the bill has not been tabled or recommitted prior to the hour of 3 o'clock p.m. on Wednesday, the vote will occur on passage of the no-fault motor vehicle insurance bill at that hour.

On the disposition of that bill on Wednesday, the Senate will resume consideration of S. 2986, the bill to authorize appropriations for carrying out the provisions of the International Economic Policy Act of 1972, as amended, and votes could occur on amendments thereto or on passage of that bill on that day. If action is not completed thereon on Wednesday, action will continue on that bill on Thursday.

Mr. President, that about wraps it up insofar as the program for the next 2 days is concerned. I ask unanimous consent that if everything I have stated in the program has not already been agreed to, it might be considered put to the Senate. I understand, for example, that I had not gotten morning business for Monday as yet.

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

Mr. ROBERT C. BYRD. As already stated by the distinguished majority leader, on Tuesday, between the hours of 10 a.m. and 12 o'clock noon, the time will be set aside in the Senate for comments in accordance with the Day for National Prayer and Fasting which was made possible by the resolution, which was offered by the distinguished Senator from Oregon (Mr. HATFIELD); so Senators will be reminded accordingly.

ADJOURNMENT UNTIL MONDAY

Mr. ROBERT C. BYRD. Mr. President, if there be no further business to come before the Senate, I move, in accordance with the previous order, that the Senate stand in adjournment until the hour of 12 o'clock noon on Monday next.

The motion was agreed to; and (at 3:54 p.m.) the Senate adjourned until Monday, April 29, 1974, at 12 noon.

CONFIRMATIONS

Executive nominations confirmed by the Senate April 25, 1974:

DEPARTMENT OF JUSTICE

Nathan G. Graham, of Oklahoma, to be U.S. attorney for the northern district of Oklahoma for the term of 4 years.

Clinton T. Peoples, of Texas, to be U.S. marshal for the northern district of Texas for the term of 4 years.

U.S. POSTAL SERVICE

Robert Earl Holding, of Wyoming, to be a Governor of the U.S. Postal Service for the term expiring December 8, 1982.

DEPARTMENT OF STATE

Alfred L. Atherton, Jr., of Florida, a Foreign Service officer of class 1, to be an Assistant Secretary of State.

Webster B. Todd, Jr., of New Jersey, to be Inspector General, Foreign Assistance.

Leonard Kimball Firestone, of California, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to Belgium.

Robert Strausz-Hupé, of Pennsylvania, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to Sweden.

AGENCY FOR INTERNATIONAL DEVELOPMENT

John E. Murphy, of Maryland, to be Deputy Administrator, Agency for International Development.

EXECUTIVE OFFICE OF THE PRESIDENT

Henry E. Catto, Jr., of Texas, Chief of Protocol for the White House, for the rank of Ambassador.

INTERNATIONAL EXPOSITION ON THE ENVIRONMENT

James G. Critzer, of Washington, to be Commissioner for a Federal exhibit at the International Exposition on the Environment being held at Spokane, Wash., in 1974.

INTER-AMERICAN FOUNDATION

The following-named persons to be members of the Board of Directors of the Inter-American Foundation for the terms indicated:

For the remainder of the term expiring September 20, 1976:
Jack B. Kubisch, of Michigan.
For a term expiring September 20, 1978:
John Michael Hennessy, of Massachusetts.
For a term expiring October 6, 1978:
Charles A. Meyer, of Illinois.

BOARD FOR INTERNATIONAL BROADCASTING

The following-named persons to be members of the Board for International Broadcasting for terms of 3 years:
David M. Abshire, of Virginia.
John P. Roche, of Massachusetts.

The following-named persons to be members of the Board for International Broadcasting for terms of 2 years:
Thomas H. Quinn, of Rhode Island.
Abbott M. Washburn, of the District of Columbia.

(The above nominations were approved subject to the nominees' commitment to respond to requests to appear and testify before any duly constituted committee of the Senate.)

IN THE COAST GUARD

Coast Guard nominations beginning Carmin (n) Yannone, to be commander, and ending Richard L. Powell, to be commander, which nominations were received by the Senate and appeared in the CONGRESSIONAL RECORD on April 11, 1974.

HOUSE OF REPRESENTATIVES—*Thursday, April 25, 1974*

The House met at 12 o'clock noon.

Rev. Willis E. Lucas, First Baptist Church, Kokomo, Ind., offered the following prayer:

Eternal God, our Father, we recognize Thy greatness as the Creator and Sovereign of the universe. By Thy hand all things came into being and by Thy hand all the universe, its history, and its people are directed to destiny.

We give thanks that You so loved this world You made and those who live on it that You sent your Son to demonstrate that love at Calvary.

We are aware this day that You love us and desire with infinite passion to bless us personally and nationally. Recognizing that Your blessing is quite often beyond our mortal grasp to comprehend, we pray for faith to reach beyond ourselves and trust Your loving goodness. Thus accepting Your promise we ask for wisdom that Your servants and our leaders might seek, know, and use divine knowledge.

We have confidence that You hear our requests and we leave Thy throne in personal assurance. Amen.

THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's proceedings and announces to the House his approval thereof.

Without objection, the Journal stands approved.

There was no objection.

MESSAGE FROM THE SENATE

A message from the Senate by Mr. Arrington, one of its clerks, announced that the Senate agrees to the amend-

ment of the House to a bill of the Senate of the following title:

S. 3292. An act to authorize appropriations to the Atomic Energy Commission in accordance with section 261 of the Atomic Energy Act of 1954, as amended, and for other purposes.

The message also announced that the Secretary be directed to request the House of Representatives to return to the Senate the bill (S. 1486) entitled "An act to regulate commerce by authorizing and establishing programs and activities to promote the export of American goods, products, and services and by increasing the recognition of international economic policy considerations in Federal decision-making, and for other purposes."

REV. WILLIS E. LUCAS

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

Mr. HILLIS. Mr. Speaker, I should like to acknowledge the words this morning of the Reverend Willis E. Lucas, pastor of the First Baptist Church of Kokomo, Ind. Reverend Lucas is an outstanding Midwest theologian who most recently was associated with the American Baptist Churches Evangelistic Association and formerly was a member of the Billy Graham Evangelistic Association.

His prayer this morning reminded me of the words of Matthew Henry when he wrote:

Let prayer be the key of the morning and the bolt of the evening.

It is a privilege to have Reverend Lucas with us.

PERMISSION FOR COMMITTEE ON APPROPRIATIONS TO FILE A PRIVILEGED REPORT ON APPROPRIATION BILL FOR SPECIAL ENERGY RESEARCH AND DEVELOPMENT FOR FISCAL YEAR 1975

Mr. MAHON. Mr. Speaker, I ask unanimous consent that the Committee on Appropriations may have until midnight tonight to file a privileged report on an appropriation bill for special energy research and development for the fiscal year ending June 30, 1975.

Mr. CEDERBERG reserved all points of order on the bill.

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

There was no objection.

PERMISSION FOR COMMITTEE ON GOVERNMENT OPERATIONS TO FILE REPORT

Mr. REUSS. Mr. Speaker, on behalf of the House Committee on Government Operations I ask unanimous consent that the committee may have until midnight tonight to file a report.

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

There was no objection.

PERMISSION FOR COMMITTEE ON HOUSE ADMINISTRATION TO FILE REPORTS ON TWO PRIVILEGED RESOLUTIONS

Mr. THOMPSON of New Jersey. Mr. Speaker, I ask unanimous consent that the Committee on House Administration may have until midnight tonight to file reports on two privileged resolutions.

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

There was no objection.

AMENDING WILD AND SCENIC RIVERS ACT BY DESIGNATING CHATTOOGA RIVER AS COMPONENT OF NATIONAL WILD AND SCENIC RIVERS SYSTEM

Mr. TAYLOR of North Carolina. Mr. Speaker, I ask unanimous consent to take from the Speaker's desk the bill (H.R. 9492) to amend the Wild and Scenic Rivers Act by designating the Chattooga River, North Carolina, South Carolina, and Georgia, as a component of the National Wild and Scenic Rivers System, and for other purposes, with Senate amendments to the House amendment to the Senate amendment thereto, and concur in the Senate amendments.

The Clerk read the title of the bill.

The Clerk read the Senate amendments, as follows:

Page 1, line 4, of the House engrossed amendment, after "(b)" insert "(1)".

Page 3, of the House engrossed amendment, strike out lines 11 to 15, inclusive, and insert:

(3) In section 7(b) delete clause (i) and insert in lieu thereof the following:

"(i) during the ten-year period following enactment of this Act or for a three complete fiscal year period following any Act of Congress designating any river for potential addition to the National Wild and Scenic Rivers System, whichever is later, unless, prior to the expiration of the relevant period, the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture, on the basis of study, determine that such river should not be included in the National Wild and Scenic Rivers System and notify the Committees on Interior and Insular Affairs of the United States Congress, in writing, including a copy of the study upon which the determination was made, at least one hundred and eighty days while Congress is in session prior to publishing notice to that effect in the Federal Register, and".

Page 3, of the House engrossed amendment, strike out lines 20 to 26, inclusive.

Page 4, line 1, of the House engrossed amendment, strike out "(d)" and insert "(c)".

Page 4, line 4, of the House engrossed amendment, strike out "including the protection of" and insert "for the purpose of protecting".

Page 4, line 7, of the House engrossed amendment, strike out "(e)" and insert "(d)".

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

There was no objection.

The Senate amendments were concurred in.

A motion to reconsider was laid on the table.

FIGHT INFLATION WITH WHAT?

(Mr. SIKES asked and was given permission to address the House for 1 minute, to revise and extend his remarks, and include extraneous matter.)

Mr. SIKES. Mr. Speaker, there has been speculation that the United States will get a new czar to fight inflation. A more pertinent question would appear to be, fight it with what?

The United States currently suffers from a 12-percent rate of inflation. The jobless rate is edging upward. Every housewife knows the cost of living is at an all-time high and still going up. Yet all price controls are being dropped and even standby control authority is apparently being allowed to die. Administration leaders appear to favor as little Government interference as possible in economic operations. This would indicate that inflation is to be allowed to run its course.

The average American feels that inflation is the Nation's No. 1 problem today. There is little to indicate a return to stability in prices within the foreseeable future. This points toward recession and there are many who state we already are in a recession.

It will be recalled that the administration's bold action in August 1971 in freezing prices had a salutary stabilizing effect. Subsequently, however, controls were abandoned in first one area and then another. Now we are back in a free running market and the situation is worse than before controls were undertaken. This is a situation that cannot indefinitely be ignored.

The standby price control authority should be continued in law and the administration should be preparing stronger steps against inflation.

WELCOME TO VISITORS FROM GRAND RAPIDS

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

Mr. VANDER VEEN. Mr. Speaker, I have been a Member for approximately 2 months now. During my incumbency, the citizens of Grand Rapids have started a program involving bus trips to Washington—trips of the people to see "where the people govern."

While the rules of the House do not permit me to call attention to the presence of these traveling Michiganites, I am delighted they have been able to make the trip to Washington, visit some of the historic shrines and monuments, and spend some time seeing how the Congress works.

I am sure they have been impressed, as I still am, with the actuality of the people's voice controlling their own Government. I want to thank the leadership and you, Mr. Speaker, for the courtesies extended to these visitors from Grand Rapids.

A series of these trips is planned and from all indications there will be no trouble in signing up visitors to the Nation's Capital.

I wish those present today a very pleasant stay in Washington. I wish them a safe and interesting return trip to Grand Rapids. I extend to them and to all the citizens of the Fifth District of Michigan an invitation to visit Washington and visit with me.

RATE THE RATERS

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

Mr. FREY. Mr. Speaker, I think it is time to rate the raters. Every group that appears in the country has taken upon itself the duty to rate the Congress. Many rate the Congress on the basis of as little as 5 votes, even though we had 540 votes in 1973. These groups are obviously advocate groups speaking from a particular viewpoint; yet the public is not aware of this nor are they aware of how these groups are funded. I can think of no better committee than our own Committee on House Administration, under the fair and impartial chairmanship of the gentleman from Ohio (Mr. HAYS).

I think a tremendous public service can be performed.

Mr. DICKINSON. Mr. Speaker, will the gentleman yield?

Mr. FREY. I yield to the gentleman from Alabama.

Mr. DICKINSON. I would like to commend the gentleman for his statements and I agree with him. We see so many groups in the country who are organized for the express purpose of effecting legislation on the floor, and label themselves with a name that sounds good. While they insist that we divulge everything, they do not even declare their sources of income. They do not state how much is spent or where or for what purpose. They are nothing more and nothing less than lobbying groups, and should call themselves lobbyists.

These lobbying groups rate the Congress on the so-called issues. In reality, oftentimes these "raters" chose a half dozen or so minor votes out of hundreds. Many of these votes chosen for rating were made in parliamentary maneuvering or as the lesser of evils. The raters do not explain this, or even seem to care.

I think it is time somebody took a look at these opinion-molding organizations.

Speaking on behalf of the minority of the Committee on House Administration, I welcome Mr. FREY's statement.

SOURCE OF INCOME OF CAMPAIGN REFORM ORGANIZATIONS

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

Mr. HAYS. Mr. Speaker, as chairman of the Committee on House Administration, I thank the gentleman for his observations both as to the committee and the chairman. I might say to the gentleman that I am inclined to agree with him. There is an amendment pending at the moment in the markup of the so-called campaign reform bill, which will require these organizations to make public, the same as a candidate or any organization supporting a candidate, the source of their income. I am hopeful that it will be included in the bill, and then it would be wholesome after that to take a good look at them anyway.

NO JUSTICE

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

Mr. GROSS. Mr. Speaker, 2 weeks ago when Members of Congress and their wives were fleeing Washington by the dozens on junkets to the far ends of the Earth, I was asked to comment and responded thusly:

With the number of junketeers reported to be flitting all over the globe, it's a cinch all the problems of the world will be solved before the end of the Easter recess.

After reading President Nixon's request of yesterday for another $6 billion for foreign handouts, I must sadly report that my hopes were ill-founded.

Mr. Speaker, there ain't no justice.

PROVIDING FOR CONSIDERATION OF H.R. 13999, AUTHORIZING APPROPRIATIONS FOR THE NATIONAL SCIENCE FOUNDATION

Mr. LONG of Louisiana. Mr. Speaker, by direction of the Committee on Rules, I call up House Resolution 1058 and ask for its immediate consideration.

The Clerk read the resolution, as follows:

H. RES. 1058

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. 13999) to authorize appropriations for activities of the National Science Foundation, and for other purposes. After general debate, which shall be confined to the bill and shall continue not to exceed one hour, 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.

CALL OF THE HOUSE

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

The SPEAKER. Evidently a quorum is not present.

Mr. O'NEILL. Mr. Speaker, I move a call of the House.

A call of the House was ordered.

The call was taken by electronic device, and the following Members failed to respond:

[Roll No. 182]

Alexander	Frenzel	Pickle
Biaggi	Gettys	Powell, Ohio
Blackburn	Giaimo	Reid
Blatnik	Gray	Rooney, N.Y.
Bowen	Haley	Rooney, Pa.
Brown, Calif.	Hanna	Rose
Brown, Mich.	Hansen, Wash.	Rosenthal
Buchanan	Hébert	Ruppe
Carey, N.Y.	Holt	Satterfield
Clark	Horton	Shipley
Clay	Hosmer	Shuster
Cochran	Johnson, Pa.	Steiger, Wis.
Conyers	Kazen	Stokes
Davis, S.C.	Kemp	Stubblefield
de la Garza	Long, Md.	Udall
Dellenback	Lujan	Ullman
Dellums	McSpadden	Waggonner
Diggs	Mayne	Whitehurst
Dorn	Milford	Williams
Drinan	Mills	Wilson, Charles, Tex.
Dulski	Montgomery	Wyatt
Eckhardt	Myers	Wylie
Edwards, Ala.	O'Hara	Young, S.C.
Evans, Colo.	Parris	
Flynt	Patman	

The SPEAKER. On this rollcall, 360 Members have recorded their presence by electronic device, a quorum.

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

PROVIDING FOR CONSIDERATION OF H.R. 13999, AUTHORIZING APPROPRIATIONS TO THE NATIONAL SCIENCE FOUNDATION

The SPEAKER. The gentleman from Louisiana is recognized for 1 hour.

Mr. LONG of Louisiana. Mr. Speaker, I yield the usual 30 minutes to the minority, the distinguished gentleman from Illinois (Mr. ANDERSON), pending which I yield myself such time as I may consume.

Mr. Speaker, House Resolution 1058 provides for an open rule with 1 hour of general debate on H.R. 13999, a bill to authorize appropriations for the National Science Foundation for the fiscal year 1975.

The total authorization in H.R. 13999 is $783.2 million. This represents an increase in the Foundation's fiscal year 1974 budget of $142 million, most of which is allocated for new initiatives in energy-related research and development.

Mr. Speaker, H.R. 13999 includes authorization for appropriations for the scientific research project support program, for the science education program and for the program entitled "Research Applied to National Needs."

Mr. Speaker, I urge the adoption of House Resolution 1058 in order that we may discuss and debate H.R. 13999.

Mr. ANDERSON of Illinois. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, this rule, House Resolution 1058, provides for the consideration of H.R. 13999, the National Science Foundation authorization under an open rule with 1 hour of general debate.

The purpose of H.R. 13999 is to provide the fiscal year 1975 authorization for the National Science Foundation. The amount authorized is $788,200,000.

By way of comparison the fiscal year 1974 authorization was $635,600,000 and the fiscal year 1974 appropriation was $569,600,000.

The amount authorized in this bill for fiscal year 1975 is exactly what the administration requested. However, the Committee on Science and Astronautics did transfer some $19,500,000 from one program to another. Funds were taken from two categories dealing with research and put into five different categories dealing with education and science information, among other things.

Minority views were filed by ALPHONZO BELL and GEORGE BROWN objecting to the committee's transferring funds out of research programs which are largely devoted to research into solving the energy problem. They prefer the distribution of funds originally requested by the NSF.

Mr. Speaker, I urge the adoption of this rule in order that the House may begin debate on H.R. 13999.

Mr. Speaker, I have no requests for time, and I reserve the balance of my time.

Mr. LONG of Louisiana. Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

A motion to reconsider was laid on the table.

PROVIDING FOR CONSIDERATION OF H.R. 13998, AUTHORIZING APPROPRIATIONS TO THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Mr. LONG of Louisiana. Mr. Speaker, by direction of the Committee on Rules I call up House Resolution 1057 and ask for its immediate consideration.

The Clerk read the resolution as follows:

H. RES. 1057

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. 13998) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes. After general debate, which shall be confined to the bill and shall continue not to exceed one hour, 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.

The SPEAKER. The gentleman from Louisiana is recognized for 1 hour.

Mr. LONG of Louisiana. Mr. Speaker, I yield the usual 30 minutes to the minority to the distinguished gentleman from Illinois (Mr. ANDERSON), pending which I yield myself such time as I may consume.

Mr. Speaker, House Resolution 1057 provides for an open rule with 1 hour of general debate on H.R. 13998, a bill to authorize appropriations to the National Aeronautics and Space Administration for the fiscal year 1975.

The total authorization in H.R. 13998 is $3,253,184,000. Of this amount, $2,357,070,000 is allocated for research and development, $146,490,000 for construction of facilities and $749,624,000 for program management. The major research and development programs are: Space Shuttle, physics and astronomy, lunar and planetary exploration, launch vehicle procurement, space applications, aeronautical research and technology, and tracking and data acquisition. The program management division of NASA is allocated funds for manned space flight, for space science programs and for aeronautics and space technology.

Mr. Speaker, I urge the adoption of House Resolution 1057 in order that we may discuss and debate H.R. 13998.

Mr. ANDERSON of Illinois. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, as previously explained, House Resolution 1057 provides for the consideration of H.R. 13998, the NASA Authorization, under an open rule with 1 hour of general debate.

The purpose of H.R. 13998 is to provide fiscal year 1975 authorizations for the National Aeronautics and Space Administration in the amount of $3,253,184,000.

By way of comparison, the amount authorized for NASA in fiscal year 1974 was $3,064,500,000 and the amount appropriated for NASA in fiscal year 1974 was $3,002,100,000.

Major items authorized in this bill are the following:

Space Shuttle	$820,000,000
Space flight operations	308,300,000
Lunar and planetary exploration	266,000,000
Trading and data acquisition	250,000,000

The committee report includes a letter from NASA, requesting an authorization of $3,247,129,000.

This bill omits a provision in the earlier authorizations which placed a restriction on the use of funds for grants to universities where Armed Forces recruiters were barred. However, the committee report indicates that the committee does not approve of universities barring recruiters, and that the committee is to be notified if any grant to such an institution is planned.

Mr. Speaker, I urge the adoption of this rule.

Mr. Speaker, I have no further request for time and reserve the balance of my time.

Mr. LONG of Louisiana. Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

A motion to reconsider was laid on the table.

PROVIDING FOR CONSIDERATION OF H.R. 11989, FIRE PREVENTION AND CONTROL ACT OF 1974

Mr. LONG of Louisiana. Mr. Speaker, by direction of the Committee on Rules I call up House Resolution 1016 and ask for its immediate consideration.

The Clerk read the resolution as follows:

H. RES. 1016

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. 11989) to enhance the public health and safety by reducing the human and material losses resulting from fires through better fire prevention and control, and for other purposes. After general debate, which shall be confined to the bill and shall continue not to exceed one hour, 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 by titles instead of by sections. 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.

The SPEAKER. The gentleman from Louisiana is recognized for 1 hour.

Mr. LONG of Louisiana. Mr. Speaker, I yield the usual 30 minutes to the minority, to the distinguished gentleman from California (Mr. DEL CLAWSON), pending which I yield myself such time as I may consume.

Mr. Speaker, House Resolution 1016 provides for an open rule with 1 hour of general debate on H.R. 11989, the Fire Prevention and Control Act of 1974.

House Resolution 1016 also provides that the bill shall be read for amendment by titles instead of by sections.

H.R. 11989 establishes a National Bureau of Fire Safety, to be headed by a Presidentially appointed director. The Fire Bureau will be the Federal focus for efforts to improve America's fire prevention and control programs. Some of the work it will undertake will include development of technology to control fires, training and education in fire prevention techniques, and data collection on the effectiveness of various fire control methods. One of the most important functions of the Fire Bureau will be to conduct an extensive program of public education in fire safety and prevention.

The bill also establishes a Fire Research Center to conduct basic and applied research into causes and effects of fires.

Mr. Speaker, in the time it takes us to debate this bill today there will be 300 destructive fires in America. When those fires are finally extinguished, more than a quarter of a million dollars of property

damage will have occurred. At least one person will be dead, and 34 people will be injured—many of them permanently scarred or disfigured.

Our Nation has long needed an improvement in its fire prevention and control methods. This bill can be the first step toward making that improvement by reducing the tragic waste of lives and money caused by fires.

I urge approval of the resolution and passage of the Fire Prevention and Control Act of 1974.

Mr. Speaker, I yield to the distinguished gentleman from California (Mr. DEL CLAWSON).

Mr. DEL CLAWSON. Mr. Speaker, the rule providing for the consideration of H.R. 11989, the Fire Prevention and Control Act of 1974, is House Resolution 1016. This is an open rule with 1 hour of general debate. In addition, the rule provides that the bill be read for amendment by titles instead of by sections.

The purpose of H.R. 11989 is to provide assistance in the reduction and prevention of fires.

More specifically, the bill establishes in the Department of Commerce a National Bureau of Fire Safety. The Fire Bureau will undertake programs of technology development, data collection, and public education. The Federal responsibility for fire safety is placed with the Secretary of Commerce. The bill establishes a U.S. Fire Academy to improve the training of firefighters and the management training of fire chiefs.

Title II of the bill establishes a Fire Research Center in the Department of Commerce, which is to conduct basic and applied research on fire and its effects.

Title III establishes in the National Institute of Health a program for improved treatment of burn victims.

Mr. Speaker, I urge the adoption of this rule.

Mr. LONG of Louisiana. Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

A motion to reconsider was laid on the table.

RETURN OF SENATE BILL S. 1486 TO THE SENATE

The SPEAKER laid before the House the following request by the Secretary of the Senate.

The Clerk read as follows:

Ordered, That the Secretary be directed to request the House of Representatives to return to the Senate the bill (S. 1486) entitled "An act to regulate commerce by authorizing and establishing programs and activities to promote the export of American goods, products, and services and by increasing the recognition of international economic policy considerations in Federal decision-making, and for other purposes."

The SPEAKER. Without objection, the request of the Senate is agreed to. The Clerk will return the bill to the Senate.

There was no objection.

GENERAL LEAVE

Mr. TEAGUE. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and include extraneous material on each of the bills on which the rules were just granted.

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

There was no objection.

AUTHORIZING APPROPRIATIONS TO THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Mr. TEAGUE. 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. 13998) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes.

The SPEAKER. The question is on the motion offered by the gentleman from Texas.

The motion was agreed to.

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 consideration of the bill H.R. 13998, with Mr. MCKAY in the chair.

The Clerk read the title of the bill.

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

The CHAIRMAN (Mr. MCKAY). Under the rule, the gentleman from Texas (Mr. TEAGUE) will be recognized for 30 minutes and the gentleman from Ohio (Mr. MOSHER) will be recognized for 30 minutes.

The Chair recognizes the gentleman from Texas (Mr. TEAGUE).

Mr. TEAGUE. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, the Committee on Science and Astronautics has undertaken perhaps its most intensive scrutiny of the National Aeronautics and Space Administration budget requested for fiscal year 1975. Every member of the committee on both sides of the aisle has played an important role in developing this bill. The members of the committee on both sides of the aisle have painstakingly examined this request embodied in H.R. 13998, the bill to authorize appropriations for the National Aeronautics and Space Administration. This bill was reported by the committee on April 9, 1974, by unanimous role call vote of those present. The distinguished gentleman from Ohio (Mr. MOSHER), the ranking minority member of the committee, has labored with diligence to help develop this legislation. He, along with the distinguished gentleman from West Virginia (Mr. HECHLER), the gentleman from Florida (Mr. FUQUA), and the gentleman from Missouri (Mr. SYMINGTON), the subcommittee chairman, along with members of the committee, have held hearings in Washington, at the NASA field centers and key industrial contractors on the programs included in the bill before us.

Since 1966, the Federal outlays for our national space program have continuously declined. Our outlays for our national space effort are over 40-percent less then they were 9 years ago. The funding proposed for this coming fiscal year will equal or slightly exceed that of the previous year for the first time in almost a decade. You all well know that the Apollo lunar and the Skylab programs have both been successfully completed even in the face of tight fiscal contraint. Our successes in our automated planetary program are well known, the most recent of which is the spectacular photography returned from the planet Mercury.

Even while new knowledge and scientific achievements are being made by NASA, the practical down-to-earth benefits of our national space program are multiplying each day. The Earth Resources Satellite has been an unprecedented success. Communications satellites are part of our daily lives. Weather, navigation satellites, and Earth resources technology is being applied to our national needs. New materials, new medical equipment, new methods of fabrication, and new electronics have all enriched our daily lives and improved our standard of living.

It is remarkable that within the span of a decade the use of space has become routine in many applications and its benefits have spread throughout the daily lives of all the people of the Nation. Clearly, this is only a beginning. The budget in the bill before you today includes funds for the support of the Viking Mars lander program in 1976; the Apollo-Soyuz test project in 1975, and the orbital flight of the first Earth orbital, low-cost transportation system—the Space Shuttle—in 1979.

Your committee took several actions with respect to the request for authorization of funds for the National Aeronautics and Space Administration. NASA requested a new authorization of $3,247,127,000 for fiscal year 1975. The bill, as reported by the committee, would authorize a total of $3,253,184,000. For research and development, NASA requested a total of $2,346,015,000; for construction of facilities NASA requested $151,490,100; and for research and program management, $749,624,000. The committee increased the total research and development authorization by $11,055,000 to $2,357,070,000; decreased the construction of facilities request by $5,000,000 to $146,490,000; and made no change to the request of $749,624,000 for research and program management. In taking these actions, the committee made several changes to the programs and added four language amendments to the bill.

For the Space Shuttle, NASA requested $800,000,000 and the committee added $20 million to the line item to provide for increased funding for work on the Space Shuttle main engine which has en-

countered technical problems typical of the early phases of the development program of this kind. These additional funds will aid in meeting current milestones for the Space Shuttle program of a first horizontal flight in 1977 and the first manned orbital flight in the second quarter of 1979.

In Space Flight Operations, two reductions were made. Five million dollars was deleted from the Apollo-Soyuz Test Project in recognition that successful management of that program is continuing to reduce total costs. Thus the reduction taken by the committee is made in recognition of successful program management and the reduced needs for funds.

Ten million dollars was deleted from development, test and mission operations area since a carryover of sufficient funds indicated that this reduction would not in any way hamper NASA's ability to support the manned space flight programs.

This bill provides $547,015,000 for NASA's Office of Space Science for fiscal year 1975, the lowest budget for this important work in several years, and some $55 million less than the budget plan for the current fiscal year. This decline in the space science budget is largely attributable to the fact that the Viking Project has past its peak in funding. Viking is designed to pursue a new phase of Mars exploration when the twin orbiter-lander spacecraft will be launched next year, arriving at Mars in the summer of 1976. The lander portion of the spacecraft will make detailed scientific investigations of the physical and chemical nature of the Martian surface, but primary emphasis will be placed on obtaining data relevant to the search for extraterrestial life; Mars is the planet believed most likely to harbor some form of life if any such exists elsewhere in the solar system.

NASA's planetary exploration program has been extraordinarily successful. Mariner 9 returned thousands of pictures of Mars, enough so that the entire surface has now been accurately mapped.

Pioneer 10 was the first spacecraft to fly beyond the orbit of Mars, the first to penetrate the Asteroid Belt, and will be the first manmade object to escape the solar system. As Pioneer 10 flew past Jupiter last December it took more than 300 close-up pictures of the largest planet and its inner moons, and provided considerable new scientific information on Jupiter's magnetic field and radiation environment.

More recently, Mariner 10 returned some remarkable images of Venus' cloud cover and some even more remarkable pictures of the surface of Mercury during the first close-up observations of the planet nearest the Sun.

The next major project in the planetary exploration program is the Mariner Jupiter-Saturn mission to be launched in 1977. Using the gravity assist technique the spacecraft will fly by Jupiter in 1979 and then on to Saturn in 1983.

The remainder of the space science program is made up of Earth orbiting satellites designed to study the Sun, the Earth's spatial environment, and astronomical phenomena which can provide clues to the origin and evolution of the universe.

After careful examination by our committee, the budget requests for the Office of Space Science appeared to be fully justified, and our committee recommends that the amounts requested be authorized without change.

Mr. Chairman, the next major division within NASA is the Office of Applications. NASA is requesting $177,500,000 for the forthcoming fiscal year to support the important work of this office.

Our committee believes that support of the applications program constitutes an excellent investment of public funds. Tangible dividends have already been produced, and we have only begun to scratch the surface.

The Office of Applications develops Earth orbiting satellites which provide such things as communications services, meteorological observations, and accurate surveys of the Earth's resources.

Communication satellites have revolutionized intercontinental communications during the short period of one decade. Today, there is a profitable private enterprise based upon the research and development work performed by NASA.

Weather satellites have taken their place as an important factor among the operational forecasting techniques of the National Oceanic and Atmospheric Administration. Again, this reflects the remarkable progress made by NASA during the decade of the 1960's.

Since its launch in July 1972, the first Earth Resources Technology Satellite (ERTS–1) has provided more than 100,000 clear images of mountain ranges, prairies, and deserts; oceans, lakes, rivers, and reservoirs; forests, ranches, farms, and cities. More than 1 million pictures have been distributed to some 300 investigators in the United States and 36 other countries. Among the practical purposes ERTS pictures serve are:

Monitoring urban development and planning future land use;

Estimating crop yields and taking inventories of timber;

Locating air and water pollution and mapping strip mine and forest fire scars;

Exploring for minerals and petroleum;

Discovering linear landscape features that may someday help in predicting earthquakes;

Updating maps and coastal and navigation charts;

Keeping watch on volcanoes;

Surveying the breeding ground of migratory waterfowl;

Studying flood hazards and managing water resources; and

Determining the distribution of marine life.

Mr. Chairman, our committee has always supported a vigorous applications program. This year, the committee voted unanimously to authorize the full amount of the requested funding for fiscal year 1975. The committee determined, however, to designate $2 million for research on short-term violent weather phenomena. In view of the devastation by tornadoes at the beginning of this month, this action by our committee seems especially timely. Our objective is to take fuller advantage of the scientific and technical talent, expertise, and facilities that exist within NASA than can be used to assist NOAA in this important work.

The committee also voted to designate $1 million of the Office of Applications budget for support of research on ground propulsion systems. Work is already underway on development of turbine engines for automobiles at the Lewis Research Center. In addition, the Jet Propulsion Laboratory is experimenting with a new technique for hydrogen injection into conventional automotive engines. The committee believes that NASA should be encouraged to do additional research on the development of energy conserving, efficient engines that have clean emission characteristics.

In the area of aeronautics and space technology, several significant changes were made in the budget proposed by NASA: $4,255,000 was added for aeronautical research and technology; $655,000 of that increase was added to provide research on hydrogen as an aviation fuel. It is clear in the long term that hydrogen will play an increasing role as a fuel substitute for hydrocarbons. This modest amount of money was provided so that NASA may take a long-range look at aircraft fuel needs. An additional $1.6 million was provided for research on a variety of aviation safety problems. These funds would be devoted to atmospheric research, fire technology, systems safety and hazard avoidance. One million eight hundred thousand dollars was also added in space and nuclear research and technology for a solar satellite power station systems study and several related technology areas. These funds would make it possible for NASA to reinstitute systems studies in the areas of power processing and conversion, structures and materials, and microwave power transmission, all of which are required if we are to reap the benefits in the years ahead of solar satellite power—an inexhaustible supply.

The fiscal year 1975 authorization also includes a new departure on the part of NASA, proposing the leasing of a tracking and relay satellite system. Such a system would provide NASA with a reduced requirement in the years ahead for ground-based overseas tracking stations, would provide greater coverage time for low Earth orbit satellites and allow greater amounts of data to be transmitted. Since it is still not clear as to whether a leasing arrangement or direct procurement of such a system would be in the best interests of the Government, this authorization includes language which would allow NASA to proceed with obtaining proposals for leasing but requires NASA to report the results of its analysis prior to a contract award. The interests of the committee in this matter did not go to who might or might not win the

competition for lease but to the question of which approach would be most cost effective. I believe that the language included in the report accompanying the bill will accomplish that objective.

In construction of facilities, several changes were made leading to a net reduction of $5 million in the NASA request.

NASA requested $6,040,000 for an infrared telescope facility at an unspecified location. Four million dollars was added to provide for an optimized infrared telescope facility to be located at Mauna Kea, Hawaii.

NASA requested $15,880,000 for construction of a Space Shuttle landing facility at the Kennedy Space Center. Your committee in considering this item agreed with the need for these facilities but observed that excess authorization would be created for this project. Therefore, the committee is recommending the rescission of $10.9 million for fiscal year 1974 so that the authorization of funds for this facility for fiscal year 1975 will be sufficient to complete the program but will not provide more authorization than that which is needed to complete the project. In examining required modifications to Launch Complex 39 at the Kennedy Space Center, it became apparent to the committee that the lead time for architect engineering study would preclude the full commitment of funds requested in the total of $42,690,000. Therefore, the committee reduced that amount by $7 million. It is recognized that those funds will be requested in the next fiscal year but are not essential to the fiscal year 1975 budget. NASA also requested $4 million for construction and modification of solid rocket motor production and test facilities. Since a firm requirement for such facility has not been established, the committee deleted this request in its entirety.

In one construction project, $2 million was added for the construction of orbiter horizontal test facilities at the NASA Flight Research Center, Edward Air Force Base. The project requested by NASA was to support the Space Shuttle horizontal flight testing for an 18-month period. The resulting facility would have been insufficient to meet NASA's aeronautical needs for future years. Therefore, your committee felt it prudent that sufficient funds be provided for this facility so as to meet not only the short-term, Space Shuttle horizontal flight test needs, but also the longer term, aeronautical research program requirements.

Since 1966, total space program employment has continuously declined. This decline began first within the aerospace industry in 1966 and was followed by the start of the NASA inhouse employment decline which will continue in this coming year with an additional net reduction of 354 people for fiscal year 1975. In recognition of this, no reduction was made by the committee in the area of Research and Program Management since it is believed that NASA is undertaking an effective program to control their total personnel complement while maintaining an adequate mix of skills within its organization.

One area of special concern received the attention of the full committee and the subcommittees with respect to NASA employment. This area was that of equal employment opportunity. NASA has been cited by several sources for its poor record in employing minority and professional personnel in its organization. In statements before the committee, Dr. James C. Fletcher, Administrator of NASA, indicated that NASA's employment of professional personnel from the minorities and women were not at a satisfactory level and that NASA has adopted specific goals to improve this record. I believe it fair to point out that NASA's declining employment and relatively poor competitive salary position with respect to industry has not helped this situation. However, Dr. Fletcher did not use this as an excuse and has set what your committee believes to be reasonable and achievable goals for improvement in monorities and women professionals within NASA. Such goals have been set not only at NASA headquarters but in each field center and each major industrial contractor has been required to undertake affirmative action programs. Data received before the subcommittees and the full committee indicates that progress is being made. Of course, everyone would like to see it come faster, but when it is considered that approximately 600 engineers from minority groups graduated from college each year, it is not surprising that NASA finds it difficult to employ a large portion of these new graduates. Again, NASA is not relying on hiring strictly new graduates but on improving the skills of minority groups and women within the NASA organization. Again, Dr. Fletcher indicated that he was not satisfied with this current situation and has set realistic goals for improvement. Your committee will continue to review this matter to assess NASA's accomplishments in equal employment opportunity not only within NASA but also with NASA's key contractors.

I would like to now discuss in more detail my summarization of the bill before you. This bill was reported out by the committee on April 2 by unanimous rollcall vote of members present.

Referring to the listing of committee actions, I would point out that the net increase in the NASA authorization above that requested by the administration is $6,055,000 or two-tenths of 1 percent above the total budget request. The increase is modest but represents 11 changes taken by the committee after extensive hearings in Washington, the NASA field centers and the industrial contractors. Mr. Chairman, the bill before us today, H.R. 13998, is to authorize fiscal year 1975 appropriations for the National Aeronautics and Space Administration.

For the benefit of my colleagues, I will detail the bill and the committee actions taken. The National Aeronautics and Space Administration requested a new authorization of $3,247,129,000 for fiscal year 1975. The bill as reported by the committee would authorize a total of $3,253,184,000. This amount is $239,624 more than authorized for fiscal year 1974 or 5.5 percent more than authorized in the previous year.

A net increase of $11,055,000 for research and development is a result of several changes made in those line item categories. A reduction of $5,000,000 was made in construction of facilities bringing the net total increase, as mentioned previously, to $6,055,000.

I will now describe the program changes and four language amendments made to the bill.

MANNED SPACE FLIGHT

In manned space flight research and development, three changes were made; $20 million was added to provide additional funds for the development of the Space Shuttle main engine. During the past 6 months, the main engine program has encountered a number of technical problems typical of the early stages of a research and development program. The addition of funds will add assurance to NASA meeting their program goals for the Space Shuttle program of a first horizontal flight in 1977 and first orbital flight of the Space Shuttle in 1979; $5 million was deleted from the Apollo-Soyuz Test Project, part of the space flight operations line item, in recognition of NASA's excellent management and cost control in this program, thus allowing the committee to reduce the authorization request for this project without impairing the progress of the program scheduled to conduct a rendezvous and docking with the Soviets, July 15, 1975.

Ten million dollars were deleted from development, test and mission operations, a part of the space flight operations line item, because the committee found that sufficient carryover would be available from fiscal year 1974 funds to allow this reduction without impairing the technical contract support services provided within this category.

AERONAUTICS AND SPACE TECHNOLOGY

In the area of aeronautics and space technology, $655,000 was added to the areonautical research and technology line item to provide for aircraft hydrogen fuel research. It was the committee's position that hydrocarbon fuels, which will become increasingly scarce in the future, will require replacement. One of the more promising candidates is hydrogen used in NASA's rocket engines at the present time. This modest but important research work will aid in establishing technology for hydrogen fuel aircraft of the future.

Within the same line item, $1.6 million was added to augment aviation safety research. This additional research effort would include atmospheric studies with respect to turbulence and its effect on aircraft, systems safety and hazard avoidance. An additional $2,000,000 was also added for general aviation research. The intent of the committee in providing these funds is to expedite and expand work in the structural crash worthiness, the development of new wing forms for

more efficient and safer flight, development of improved fuel systems for reduced hazards, investigation of advanced materials and fabrication techniques, emission reduction for aircraft internal combustion engines and applied research in aircraft handling characteristics.

SPACE AND NUCLEAR RESEARCH AND TECHNOLOGY

In consideration of the critical energy needs of the Nation during the next decade, $1.8 million was added to the space and nuclear research and technology line item to provide for additional studies on the part of NASA in the solar satellite power station area. It is the goal of these studies to identify and define major areas of emphasis necessary to bring a solar power station system to a practical level.

CONSTRUCTION OF FACILITIES

Several changes were made in the area of construction of facilities with a total net reduction of $5 million from the $151,490,000 requested by NASA for fiscal year 1975.

Four million dollars was added to provide for an optimized infrared telescope facility to be located at Mauna Kea, Hawaii. This telescope is essential to NASA's planetary exploration program providing a ground based, infrared telescope large enough to define spacecraft sensor requirements for planetary flyby. The additional funds would make the telescope usable after NASA completes its short-range program and would allow the National Science Foundation to have a more flexible infrared telescope facility usable throughout the remainder of the century.

A net reduction of $9,000,000 was made in the NASA request of $86,020,000 for Space Shuttle facilities for fiscal year 1975. A $7,000,000 deferral was made in funds for modification to Launch Complex 39 at the Kennedy Space Center. This deferral was made in recognition of the fact that architect engineering studies will take the better part of the coming fiscal year to complete, and therefore, construction funds could not be committed in the amount requested by NASA. The committee endorses the work being carried on in this project but deferred the funds recognizing that the program can be continued in an orderly manner without these moneys in fiscal year 1975; $2 million was added to the request of $1,940,000 for construction of an orbiter horizontal flight test facility at the Flight Research Center Headquarters, Edwards Air Force Base. The NASA request provided sufficient facilities for the 12-to-18-month horizontal flight test program of the shuttle orbiter. Since the aeronautical research needs of NASA extend into the future, the committee felt it more prudent to add sufficient funds to allow an adequate facility to be built to serve the long-term needs of the aeronautics program of NASA at that installation.

NASA requested $4 million for construction and modification of solid rocket motor production and test facilities, the location to be designated. Since facilities requirements in this area are not firm and the program award is under protest, these funds were deleted from the NASA request. Testimony before the committee indicates that there may not be a requirement for funds of this nature in the solid rocket motor program, and therefore, the deletion of the $4,000,000 represents a deferral of this item until adequate definition of this program is completed.

RESEARCH AND PROGRAM MANAGEMENT

The committee approved and recommends the $749,624,000 requested by NASA for research and program management for fiscal year 1975. These funds provided the salaries for in-house NASA personnel and support for administrative costs in operation of the NASA headquarters and NASA field centers. It should be noted that the authorization request for this line item includes a continued net reduction in NASA personnel in the coming fiscal year of 354. After analysis of the NASA budget request, it is clear that NASA is making a concerted effort to control their administrative costs. With several pay raises, NASA budget request for this item is only 6 percent more than fiscal year 1974. This control has been achieved by continued reduction of personnel and associated administrative costs.

LANGUAGE AMENDMENTS

The subcommittee has made four language amendments. In line item 1 (a)(7), space applications, the committee adopted language to specifically designate $2 million for research in short-term weather phenomena and $1 million for research on ground propulsion systems utilizing hydrogen. In both instances, it was the committee's view that these modest but significant efforts merited specific identification and funding. NASA has already contributed to both these areas and this amendment would assure continued research effort.

In line item 1(b)(14), construction of an optimized, infrared telescope facility, the word "optimized" was added to denote the committee's view that a flexible facility meeting long-term national needs should be constructed. This telescope was discussed earlier.

In line item 1(h), a provision was added to the bill rescinding $10,900,000 authorized for the orbital landing facility at the Kennedy Space Center in fiscal year 1974. This rescission of authorization was made so that excess authorization will not be provided because of the additional request made for this facility in the current bill.

A new section 7 has been added to authorize NASA to enter into a contract for tracking and data relay satellite services. It is NASA's position that such a system is within the state-of-the-art and can be purchased as a service. This would ultimately allow NASA to close several overseas tracking stations, provide additional low Earth orbit communication time, and increase the data transmission capability from a spacecraft. However, the committee in examining this area takes the position that NASA should thoroughly examine lease-versus-purchase and advise the committee of their findings prior to final committal to this method of operation. The actions of the committee reflect this position.

COMMITTEE VIEWS

In addition to the dollar and language amendments which I have discussed, the committee adopted 10 views which are:

CONTRIBUTIONS TO CRITICAL NATIONAL NEEDS

It is the view of the committee that NASA's scientific and technical competence in terms of personnel, and its extensive network of sophisticated facilities and equipment, some not fully used, provides an opportunity to utilize these capabilities in high technology areas critical to our Nation's needs, such as energy, transportation and environmental control. Therefore, your committee requests that NASA undertake a scientific and technological inventory of the capability within its control as well as NASA contractors and subcontractors, and provide to the committee not later than August 1, 1974 their assessment of the capability available and applicable to critical national needs.

FORWARD PERSONNEL PLANNING

The committee noted that the problem of bringing new young professional people into NASA continues, although it has been slightly alleviated by the stabilized personnel ceiling achieved by NASA with the fiscal year 1975 budget. While the average age of the professional work force is still increasing and is still of concern, another dimension of the problem requires investigation; the age distribution of the work force. It is noted that top and middle management of several NASA centers are approximately the same age. This portends a large retirement at a future date of a significant portion of NASA management talent. The committee recommends that NASA analyze this problem and report to the committee on its findings by August 1, 1974.

ERTS PROJECT

The committee wishes again to emphasize the importance that it places on the ERTS project. ERTS, too, has been an unqualified success. The data from this remarkable spacecraft has already proven its worth to several scientific disciplines, particularly geology and cartography. ERTS–I data is also being used in a quasi-operational sense for a variety of purposes such as repetitive low-cost agricultural inventories, fresh water management, environmental surveys, and pollution monitoring. Because of its pervasive coverage, the quality of its data and the many uses to which it can be applied. ERTS–I has come to be considered an imcomparable tool. Seldom has any enterprise been so widely acclaimed, by experts and laymen alike, for its potential contributions to the betterment of mankind's condition.

The committee notes with approval that authorization has been requested for the development of a new five-channel multispectral scanner during the forthcoming fiscal year. Although ERTS–C is not currently part of the

NASA program, it is assumed that the new five-channel multispectral scanner will ultimately be flown in an ERTS–C spacecraft. The committee takes this opportunity to urge that an ERTS–C mission be included as part of the NASA program next year. In this connection, the committee wishes to emphasize its view that the momentum of the ERTS project should be continued, and that every effort should be made to avoid a hiatus in the acquisition of ERTS data during the remainder of this decade, that is, during the period prior to the availability of the Space Shuttle.

Finally, the committee notes the fact that funding for support of investigations and for data analysis has been reduced sharply during the past year or so. Inasmuch as the ultimate goal of the ERTS project is the acquisition and analysis of data, and its application to many practical problems here on Earth, the committee wishes to state its concern that this aspect of the project may not be adequately funded.

ADVANCED TECHNOLOGY LABORATORY

During testimony on the fiscal year 1975 authorization covering the space and nuclear research and technology area, the committee was informed of NASA's planned Advanced Technology Laboratory to provide for the use of the Europe developed Spacelab to provide OAST with the capability to do multidiscipline research and technology in space.

Further inquiry revealed that NASA plans to lease a 747 type aircraft in order to conduct the experiments. In coordinating this activity with the Manned Space Flight Subcommittee it was learned that the Space Shuttle program will require a 747 or C–5A type aircraft to ferry the Shuttle Orbiter from the assembly site at Palmdale, Calif., to Cape Canaveral for launch.

The committee urges NASA to investigate the possibility of using the same vehicle required for Shuttle as their airborne tested for the Advanced Technology Laboratory effort thereby potentially realizing a permanent savings to the Government.

AIRCRAFT NOISE

The committee noted that as a result of its December oversight hearings on aircraft noise, the EPA has formed an ad hoc "aviation noise control requirements study" group. NASA should be urged to continue its participation in this group in an aggressive manner, and that EPA should be commended for organizing the group and proceeding with the study.

One of the major subjects discussed during the committee's December 1973 oversight hearings on aircraft noise was the possibility of the FAA proceeding with a rulemaking approach which would, for all practical purposes, eliminate potential use of a NASA-developed refan retrofit technology. The Administrator of the FAA, Alexander P. Butterfield, testified that the subject would be given his close personal attention. However, on March 26, 1974 the FAA announced a Notice of Proposed Rulemaking (No. 74–14; Docket 13582), which for all practical purposes, eliminates the refan retrofit as a viable option for the airlines because of the completion data for compliance established in the FAA notice—July 1, 1978. Extensive testimony taken during the December hearings showed that the refan retrofit technology would provide substantially greater noise reductions than the retrofit which will be required under the FAA proposed rule cited above. This action reinforces the committee's concern that the $44 million authorized to NASA for the refan retrofit technology is "down the drain." Continued action by the committee to preclude this from happening is warranted.

SUPERSONIC CRUISE AIRCRAFT TECHNOLOGY

Committee oversight hearings were held on this subject on February 22, 1974, during which NASA emphasized that the research being done was not a "supersonic aircraft program." It was stressed that the research is a part of the entire flight regime from general aviation to the hypersonic area.

After considerable discussion on this research area, the committee decided to call for a report by NASA describing and explaining alternative approaches to proceeding with supersonic research and technology in terms of major objectives, program content, and funding levels during the next decade.

PLUM BROOK STATION AT THE LEWIS RESEARCH CENTER

The budget data presented to the committee confirmed NASA's intention to place the Plum Brook Station, located near Sandusky, Ohio, in a standby status at the end of fiscal year 1974. Due to the far-reaching impact such action would have on our national research capability, the committee held an additional day of hearings on this subject.

Plum Brook Station represents a unique and valuable national resource. The land facilities and equipment of this station are valued at $118.9 million. Located at the station are "one of a kind" type facilities such as the space power facility constructed at a cost of $25 million. This facility is truly unique. It is the world's largest space environment simulation chamber, is equipped with a solar simulation system and has excellent instrumentation and data acquisition facilities.

Testimony revealed that several departments and agencies are interested in and negotiating for the use of the capabilities offered by Plum Brook. The Air Force and Navy are considering the use of the space power facility for testing space satellites, and negotiations are underway at this time. Some interest has been expressed in long-range use of the facilities by the National Oceanic and Atmospheric Administration and the Atomic Energy Commission. Discussions are also in progress concerning the use of Plum Brook for joint NASA/AEC terrestrial power systems programs. The NASA/NSF cooperative program on the investigation of full-scale wind-driven energy devices will be conducted at Plum Brook.

The committee has adopted a strong position opposing the NASA proposal to place Plum Brook in a standby mode. It is believed that a minimal 50-man operating force, over and above the small planned standby force, should be retained at this station for at least 1 year pending the outcome of negotiations with potential users of the facilities. Although some assurance has been received from NASA that a minimal operating force will be maintained beyond fiscal year 1974 for a "reasonable period of time," the committee believes that continuous and active attention on the part of NASA is required to keep Plum Brook operating as a valuable national resource. This subject will be an active oversight action during the coming year.

COAL RELATED RESEARCH

During both subcommittee and full committee hearings various energy-related research and development projects were reported to the committee. The information was provided both in prepared testimony and as a result of committee questions.

Dr. James G. Fletcher, Administrator of NASA, reported that during the past year NASA has intensified its interest and activity in advanced research related to the extraction and combustion of coal. Discussions have been held by NASA with the Department of Interior on ways that NASA might help in technology areas related to the mining of coal, mine safety, equipment reliability, and efficient nonpolluting conversion of coal energy to eletric power.

The committee strongly supports the application of space-related research toward the solution of problems related to coal, and urges that working arrangements be vigorously developed and expanded. The committee is pleased that cooperative relationships are being developed by NASA in conjunction with the Department of the Interior in this vital area.

SPACE BENEFITS INFORMATION

It is the sense of the committee that NASA should be doing much more in the area of disseminating space benefits information to the public at large through its public affairs organization.

Fully recognizing the statutory limitation on information dissemination by a Government agency, but also that statutory requirement under the Space Act to inform the American public, it is the view of the committee that more can be accomplished within the means available to the Public Affairs Office.

The committee strongly urges the Administration of NASA to consider the following recommendations in trying to fulfill this requirement.

Better utilization of available resources within the agency through coordinated efforts such as the technology utilization area;

More emphasis on space benefits, versus program status—through coordinated efforts such as the technology utilization area;

Consideration of coordinated efforts with other executive agencies such as Departments of Interior, State, Agriculture, NOAA, HUD, HEW, DOT, and so forth;

Strengthen educational programs through more extended use of the Spacemobile program and other type forums;

Possible involvement of industrial users;

Additional appearances by key NASA officials addressing space benefits;

Balance of media emphasis with press, TV and radio; and

Disseminate artifacts, mockups, and so forth, where public audiences can be expected.

Therefore, the committee wishes to emphasize that the Administrator of NASA should strengthen the agencies' Public Affairs program wherever possible so as to accomplish the goal of providing the public with this much needed information.

GRANTS TO INSTITUTIONS BARRING RECRUITING PERSONNEL

The committee has not included in the legislation any provision concerning grants to nonprofit institutions barring Armed Forces recruiting personnel from campuses. This type of provision, which has been included in NASA authorization legislation for the past 5 years, required the Secretary of Defense to report on a semiannual basis to the Administrator of NASA those institutions which barred military recruiters from college campuses, and prohibited NASA from making grants to those institutions. The amendment was originally introduced by the Senate at the time of the Vietnam conflagration, a period which was characterized by widespread campus disorders.

Although the reports submitted by the Secretary of Defense at one time listed 28 institutions, NASA had conducted business with only 1. The campus policy of that one institution, as it barred recruiting personnel, remained in effect for a period of 3 months during 1970 after which time the university changed its policy to once again permit recruiters on campus.

Due to a number of factors, including the Vietnam disengagement the Secretary of Defense now indicates that military recruitment is permitted nationwide at all but seven of higher learning. These institutions tend to be smaller liberal arts schools to which NASA has never made grants. Furthermore, there are no active grants or contracts outstanding at any of the seven named institutions.

This favorable change in the college environment therefore encourages the committee to drop the legislative requirement prohibiting grants to those institutions barring military recruiters. However, this does not imply any sanctioning by the committee on this type of campus policy or campus activity; indeed, the committee remains firm in its opposition to such institution policies.

The committee therefore requests that the Administrator or his designee, in coordination with the Department of Defense, ascertain semiannually the extent to which Armed Forces recruiting personnel are being barred from the campuses of nonprofit institutions of higher learning and that the Administrator inform the chairman of the committee of his intent to make any grant to such institutions. In this manner, the committee will be permitted to continue to monitor NASA's relationship with these institutions to determine whether prior legislative sanctions need to be reinstituted.

Mr. Chairman, I urge all my colleagues on both sides of the aisle to support the bill before us, H.R. 13998, as recommended by your committee.

Mr. Chairman, I yield 6 minutes to the gentleman from West Virginia (Mr. HECHLER) who is chairman of the Subcommittee on Aeronautics and Space Technology.

Mr. HECHLER of West Virginia. Mr. Chairman, the Subcommittee on Aeronautics and Space Technology, held extensive hearings and the fiscal year 1975 NASA budget request, was $732,410,000. We are recommending $738,465,000—an increase of $6,055,000, or 0.82 percent.

AERONAUTICAL RESEARCH AND TECHNOLOGY

Of the $6,055,000 increase $4,255,000 is for aeronautical research and technology. In both subcommittee and full committee hearings, members expressed concern about the decrease in the requested fiscal year 1975 amount for aeronautical research and technology—$166,400,000 compared to last year—$168,000,000. The relatively small increases in three areas are recommended based on the committee's conviction that problems in aviation must and can be solved more rapidly than proposed in the NASA budget.

HYDROGEN AS AN AVIATION FUEL

An increase of $655,000 from $755,000 to $1,410,000 is recommended to expedite investigation of the problems and prospects of liquid hydrogen as an aviation fuel.

As part of an oversight hearing held on February 22, 1974, aviation fuel conservation measures and the problems and prospects of hydrogen as an aviation fuel were extensively examined. These hearings showed that the use of liquid hydrogen as an aviation fuel offers much promise. But many hard problems remain to be solved. Opinions are far more numerous than hard facts—and statements about possible use of hydrogen as an aviation fuel range from 1980 to the year 2000.

We need to have more information about alternative fuels for the aviation industry in the decades ahead. The committee believes that we must move faster to learn more about hydrogen as a possible alternative fuel to current petroleum-based aviation fuels.

In order to move faster the committee recommends the increase of $655,000 to be used as follows:

First. Perform in-house design integration studies in advance of possibly moving to flight and ground operations experiments—$55,000.

Second. Do trade-off studies between the use of internal and external fuel tanks for aircraft—a major uncertainty—$200,000.

Third. Examine fuel tank insulation problems—$100,000.

Fourth. Work on the difficult problems of compatibility of materials with liquid hydrogen.

AVIATION SAFETY

An increase of $1,600,000 from $8,400,000 to $10,000,000 is recommended to provide for additional research on a number of aviation hazards. The committee continues to be concerned greatly about the level of effort and management attention given to aviation safety. After intensive inquiry it was concluded that NASA could productively use the additional $2,000,000 in a number of important areas. These are as follows:

First. Atmospheric research.—$190,000 would be used to support work on one or more of the following areas: clear air turbulence, studies of storm turbulence, and persistence of wake vortex turbulence.

Second. Fire technology.—$360,000 would be used to achieve new understanding of the fire hazard environment and the identification of new materials. Specific tasks would be carried out in materials research, fuel modification, smoke and fire detection and quenching, and studying passenger survival in hazardous fire incidents.

Third. Systems safety technology.—$250,000 would be used to support systems studies and accident analysis, cockpit visibility and crew/vehicle interactions.

Fourth. Hazard avoidance.—$800,000 would be allocated to support such work as wake turbulence marking and detection, wake turbulence flight testing, and runaway veer-off and overrun reduction.

GENERAL AVIATION

An increase of $2,000,000 from $4,900,000 to $6,900,000 is recommended for this important part of aviation—with emphasis on making general aviation aircraft safer, more reliable and more competitive in the world markets.

Direct and indirect contributions by general aviation to the gross national product are presently about $4 billion a year. The most recent FAA estimates indicate that general aviation aircraft carry as many people in intercity travel as the scheduled airlines.

General aviation's fleet of aircraft is over 50 times larger than that of the airlines—133,000 as compared with 2,600. There are about 720,000 general aviation pilots compared with approximately 35,000 commercial airline pilots. Finally the export value of general aviation aircraft and engines in 1973 was about $350 million.

Unfortunately, many of today's general aviation aircraft are based on technology of the 1940's and 1950's. Technical advances achieved in military and large commercial transports are in most cases either not applicable or not available to general aviation because of performance, cost or complexity.

The committee strongly believes that NASA can effectively and productively use the additional $2 million in a number of important ways, including:

First, $200,000 for expanding work on a new development in wing shape which should make aircraft more efficient and safer.

Second, $300,000 for expediting a program to enable aircraft to withstand crashes more safely.

Third, $850,000 for incorporating advanced design techniques using new materials, manufacturing processes, and propulsion concepts to upgrade the earlier technology of the 1940's and 1950's.

Fourth, $500,000 for providing additional emphasis on the development of pollution reduction technology for piston engines.

Fifth, $150,000 for simulation technology for pilot training, evaluation, and proficiency maintenance. The high accident rates in general aviation call for this type of action.

In summary the committee believes the modest investment in general aviation will pay handsome dividends, not only in reducing unnecessary loss of life, but in enhancing the competitive position of U.S. industry in the export market.

AIRCRAFT NOISE

While the committee is not, this year, recommending additional funds for aircraft noise abatement, it continues to be extremely interested in insuring that every possible step is taken by NASA and other Government agencies to bring about substantial noise level reductions. Oversight hearings were held in December 1973 and additional hearings are planned for this coming summer.

The committee is pleased to report that as a result of its December oversight hearings on aircraft noise, the Environmental Protection Agency has formed an ad hoc Aviation Noise Control Requirements Study Group. Its purpose is to identify specific measures which should be undertaken by various agencies in achieving noise reduction. The committee has urged NASA to participate fully with the EPA in its aircraft noise work which is being pursued in response to congressional intent expressed in the Noise Control Act of 1972.

One of the major subjects discussed during the committee's December 1973 oversight hearings on aircraft noise was the possibility of the FAA proceeding with a rulemaking approach which would, for all practical purposes, eliminate potential use of a NASA-developed refan retrofit technology. The Administrator of the FAA, Alexander P. Butterfield, testified that the subject would be given his close personal attention. However, on March 26, 1974 the FAA announced a notice of proposed rulemaking—No. 74–14; docket 13582—which for all practical purposes, could eliminate the refan retrofit as a viable option for the airlines because of the completion date for compliance established in the FAA notice—July 1, 1978. Extensive testimony taken during the December hearings showed that the refan retrofit technology would provide substantially greater noise reductions than the retrofit which will be required under the FAA-proposed rule cited above. This action reinforces the committee's concern that the $44 million authorized to NASA for the refan retrofit technology is "down the drain." Continued action by the committee to preclude this from happening is warranted.

QUIET RESEARCH SHORT-HAUL AIRCRAFT

The committee has for some years been pressing for the acquisition of technology which would permit the United States to produce various types of quiet, efficient airplanes suitable for the short-haul market—that is, up to about 1,000 miles. Last year the committee reported its concern about the termination of the quiet experimental STOL aircraft program—QUESTOL—by NASA in response to overall budget reductions. Largely due to congressional pressure to continue some kind of research effort in this field, NASA has devised a program less expensive than the QUESTOL would have been, but which will achieve many of the terminated program's objectives. The quiet research short-haul aircraft program will be carried out in coordination with the Air Force advanced medium STOL transport program and will draw extensively upon it because of the termination of the QUESTOL.

The research results of this program will be important not only to producing substantially more quiet, safe, reliable, economic short-haul aircraft in the 1980's for domestic use, but will strengthen the U.S. competitive position in world aerospace markets. This is another area in which a relatively modest investment by the Government should result in substantial returns—tangible and intangible.

SOLAR SATELLITE POWER STATION

An increase of $1,800,000 from zero funds is recommended for resuming study of this potential source of solar energy.

The committee noted that a $1,800,000 addition would make it possible for NASA to reinstitute systems studies and enhance technology programs to attack key problems. These problems are generally in the areas of power processing, power conversion, structures and materials, and microwave power transmission.

A solar satellite power station would be a large satellite in orbit which would receive energy from the Sun and convert it into a form which could be transmitted to the Earth—much like a radio signal. Much preliminary work remains to be done to find out what specific problems must be solved and to determine the economics of this kind of energy source.

TRACKING AND DATA ACQUISITION

A major decision considered by the committee involved a NASA proposal to amend the National Aeronautics and Space Act of 1958. This amendment would have permitted NASA to enter into a long-term leasing arrangement for services to be provided by a to-be-developed tracking and data relay satellite system—TDRSS.

The TDRSS is a communications concept which, if implemented, would result in the closing of most foreign ground stations presently part of the NASA tracking and data network and bring about considerable cost savings.

The proposed system is essentially an orbital communications network consisting of two satellites placed in synchrnous orbit spaced equatorially to permit up to 85 percent coverage of all low Earth orbiting manned and unmanned spacecraft below 5,000 kilometers. The satellites would receive commands from a ground station located in the United States and relay the appropriate data to the spacecraft. This system will also allow the spacecraft to transmit to the TDRSS satellites for transmission to the ground.

The operational and economic merit of the system and the technical risk associated with it are favorable and the committee recommends proceeding with its development. However, the major problem considered by the committee was how the system should be procured—leased or bought. The preliminary analysis provided by NASA showed the lease approach to be more expensive than a Government purchased system.

Major reasons advanced by NASA in favor of the lease were:

First. Leasing defers substantial expenditures past the peak shuttle funding requirements in the late 1970's. A contractor would develop, produce and launch the satellites by 1978 or 1979, but NASA would not begin lease payments for services until the system became operational.

Second. General Government policy is to lease rather than own communications services.

The committee devoted an extensive amount of time to examining the NASA proposal. Additional hearings were held beyond those scheduled, lengthy staff discussions were held with NASA, the GAO and the House Legislative Counsel.

However, the committee finally concluded that insufficient cost analysis comparing a leased system versus a NASA-owned system was presented to allow the committee to evaluate fully the NASA lease proposal. Particularly troubling to the committee was that NASA's preliminary analysis showed the leased system to be about 20 percent more expensive than a purchased system—using the discounted dollar technique of analysis.

A compromise arrangement was worked out which would permit NASA to proceed with sending out requests for proposals on the lease approach to obtain reliable data—but which calls for NASA to return to the committee for a review of the program prior to any contract award. In essence, the committee recommends that instead of amending the Space Act of 1958, the fiscal year 1975 authorization bill include a new section permitting NASA to enter into

a lease contract. However, the authority to enter into and maintain the contract would remain in effect only so long as this provision is included in authorization acts.

The proposed language is in section 7 of the authorization bill. Under the provisions of this section, if specific authorization for the TDRSS lease is not included in the NASA authorization of fiscal year 1976, NASA would be required to terminate for the convenience of the Government any long-term contract which may be entered into under the authority of the new section 7. In such a situation the contractor would have a right under the contract to be paid for the contingent liability which might have accrued before the termination.

The approach recommended by the committee permits NASA to proceed with issuing its requests for proposals to industry in order to obtain more accurate information on the "lease versus purchase" aspects of the TDRSS—but makes it clear that no contract should be let before the committee has been provided with sufficient information to make a final decision. The committee does not intend or desire to participate in the contractor selection process associated with this procurement. Rather, the committee wishes to assure that the various methods of procurement have been thoroughly analyzed and the approach which is selected would be in the best interest of the Government.

ENERGY RELATED RESEARCH AND DEVELOPMENT

During both subcommittee and full committee hearings various energy-related research and development projects were reported to the committee. Examples were given of how NASA's management background and technical competence have led to an increasing variety of tasks being worked on in cooperation with other Government agencies. These cooperative activities include:

First. The Department of the Interior on the more efficient utilization of coal.

Second. The Environmental Protection Agency on ground transportation—increasing efficiency and reducing emissions.

Third. The National Science Foundation on solar energy and wind-driven energy devices.

Fourth. The AEC on advanced energy conversion systems for nuclear powerplants.

Going back to the fiscal year 1974 NASA authorization for a moment, I would like to point out that the committee recommended, and the House agreed, that a modest amount be added to the NASA budget request for energy-related R. & D. The purpose of this addition was to determine how the R. & D. results of nearly $1.5 billion spent on space nuclear power and propulsion could possibly be applied to the solution of our energy problems. In cooperation with the AEC, NASA has responded with a small program ranging between $2 and $3 million.

Dr. James G. Fletcher, Administrator of NASA, reported that during the past year NASA has intensified its interest and activity in advanced research related to the extraction and combustion of coal. Discussions have been held by NASA with the Department of Interior on ways that NASA might help in technology areas related to the mining of coal, mine safety, equipment reliability, and efficient nonpolluting conversion of coal energy to electric power.

The committee strongly supports the application of space-related research toward the solution of problems related to coal, and urges that working arrangements be vigorously developed and expanded. The committee is pleased that cooperative relationships are being developed by NASA in conjunction with the Department of the Interior in this vital area.

In line with the committee's view and the view of most expert observers that one major near term answer to the Nations' energy needs lies in the development and utilization of coal, I will later be offering an amendment. The amendment will call for a relatively small increase of $3,900,000 for coal related research. The time required to examine potential tasks thoroughly precluded me from offering the amendment in committee.

Mr. Chairman, I urge support of the bill before you today, as a commitment to solving the problems which I have described.

I would like to commend the chairman of the full committee (Mr. TEAGUE) for his great leadership in all phases of the space program, and in particular the manner in which he has inspired everyone associated with the program and with the House Committee on Science and Astronautics. I appreciate very much the excellent work done by our colleague from New York (Mr. WYDLER), the ranking minority member of the Subcommittee of Aerospace Technology, and all members of the subcommittee. I would also like to express the committee's appreciation to the excellent staff assistance supplied under the leadership of William G. Wells, and also the assistance supplied by Thomas N. Tate, Harold C. Gould, Elliott Bushlow, and Tish Schwartz.

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

Mr. HECHLER of West Virginia. I yield to the gentleman from Iowa.

Mr. GROSS. Mr. Chairman, I thank the gentleman for yielding.

Do I understand the bill calls for $788,300,000?

Mr. HECHLER of West Virginia. Mr. Chairman, the subcommittee portion of this bill, which is a NASA bill, I advise my colleague, the gentleman from Iowa, asks for $738,465,000. The entire NASA bill covers $3,253,184,000.

Mr. GROSS. I thought the committee was asking in this bill for something over that figure. Perhaps I am dealing with the right bill and the wrong report.

Mr. HECHLER of West Virginia. Mr. Chairman, I would advise the gentleman that this is the NASA authorization, H.R. 13998.

Mr. GROSS. That is my error. I thought H.R. 13999 was the first bill to be considered.

Mr. Chairman, may I ask the gentleman this question: Is there any money in this bill for the SST?

Mr. HECHLER of West Virginia. There is no money in this bill, as I advised the gentleman last year, for the development of a supersonic transport. There are funds in this bill for research in high-speed aviation.

Mr. GROSS. Mr. Chairman, the Aeronautics and Space Administration, as I understand it, got about $11 million last year in some bill for the continuation of experimentation on the SST.

Mr. HECHLER of West Virginia. Mr. Chairman, there is $8.9 million in this bill and we are calling for a specific report by NASA on its development of supersonic research. However, we are very clearly telling NASA that none of this money is to be used for a supersonic aircraft.

Mr. MOSHER. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, so far as I am aware, this year's NASA authorization, as proposed in H.R. 13998, is remarkably free of controversy. It has the united support of the Science Committee, and I want to compliment Chairman TEAGUE for his leadership in preparing this excellently balanced bill.

H.R. 13998 calls for a total budget authorization of $3.253 billion. True, this figure is $6 million above that which the Administration requested, but that is an increase of less than one-quarter of one percent, and I believe it is warranted.

I would point out, by way of background, that a year ago NASA's fiscal year 1974 budget was sharply reduced and it was accepted only as a temporary reduction, below the $3.4 billion level previously planned by the Administration as a long-term level which should be sustained. At the time of last year's Administration request, it was recognized that increases would be required in the NASA budget in fiscal year 1975, and subsequent years, in order to achieve the funding level required to maintain a balanced space and aeronautics program.

The Administration did provide an increase in the fiscal year 1975 budget over the budget of last year, but because of the financial restraints within which the overall national budget was prepared, the proposed $100 million increase is much less than is required to maintain NASA's effort at the previously agreed-to level.

As a result, a number of programs are being delayed or otherwise reduced in scope. Most notably, the Space Shuttle, as the basic space transportation system for the coming decades, is being delayed approximately 6 months in its development cycle. The difficulty with such program cutbacks, of course, is the fact that these reductions often result later in increased total program costs, because of the complexity and scale of many of the programs.

The committee, therefore, is seeking to minimize the later costly impact of the

Shuttle budget cutback by adding $20 million. This is the largest single dollar amendment made to the administration budget, and this increase comes primarily from a reallocation of funding within the overall NASA program rather than the less fiscally responsible alternative of adding money to the total budget.

In spite of the constraints placed on the NASA budget, however, three new projects are planned as startups for fiscal year 1975. The three programs are the pioneer Venus, the SeaSat, and the heat capacity mapping mission programs, and all fall within the general category of unmanned space science and applications.

The first new program—pioneer Venus—is designed to study the composition and global dynamics of the atmosphere of Venus. Hopefully, this effort will give us a better understanding of the forces of both that planet and ours which drive the atmosphere, the weather, and the climate. This two-mission program is planned to fly to Venus in 1978.

The second new program—SeaSat—is an experimental application satellite designed to observe and measure physical characteristics of the oceans. The spacecraft will monitor such conditions as sea state, wave height, wind speed, ocean temperatures, and other characteristics. This data will be extremely useful for ship routing, ship design, storm damage avoidance, coastal protection, and port development.

The heat capacity mapping mission as the third new initiative is a small spacecraft designed to make thermal measurements of the Earth's surface. Information provided by the spacecraft will be of major value not only in locating hidden mineral resources but in constructing major civil works such as highways and canals. Potential geothermal sources will also be mapped from the spacecraft.

Mr. Chairman, Chairman TEAGUE has presented a comprehensive overview of NASA's principal ongoing programs including the Apollo-Soyuz project, the space tug, the Earth resources satellite program, and NASA's aeronautics activities to cite just a few key programs. I would therefore only add my support to his comments, emphasizing that the budget authorization recommended by this committee is extremely important in order to preserve this Nation's preeminence in space and aeronautics.

I would like to comment further however on an item related to NASA's facilities planning.

During NASA's peak funding years in the mid-1960's a number of highly modern and complex facilities were constructed. In this time frame, a budget of almost $6 billion supported an expanding and aggressive space program and over 400,000 personnel worked directly under NASA contract. Today, with a $3 billion budget, NASA's new starts are extremely limited and total contractor personnel number only slightly more than 100,000.

As a result, many of the facilities which were built to support these personnel and the rapid growth of the space effort are now badly underutilized. But, while space as a single functional area has suffered major budget cutbacks, Federal obligations for civilian R. & D. programs over the past 5 to 6 years have shown a steady rise—averaging almost 10 percent growth per year. Such research activities as national security, energy development and conversion, and health, to mention just three, have enjoyed major dollar gains.

My point is this, that within some agencies there are excellent facilities which lie dormant, while within others existing spaces are wholly insufficient to meet increasing program needs. In recognition of this dilemma, the Science Committee took what I consider to be a far-reaching step in opposing a NASA-proposed shutdown of the modern and unique Plum Brook Station located near Sandusky, Ohio.

Originally, NASA had intended to place that station—which NASA characterized as a "one of a kind" type of facility—on a standby status. In the course of hearings, however, it was revealed that several other departments and agencies are interested in negotiating for the use of various of the Plum Brook facilities. As an example, the Air Force and Navy are considering the use of the $25 million space power facility for testing space satellites. Interest has also been expressed in the use of Plum Brook by the National Oceanic and Atmospheric Administration and the Atomic Energy Commission. The joint NASA/NSF cooperative program on the investigation of wind-driven energy devices also is planned to be conducted at Plum Brook.

The committee therefore adopted a strong position which opposes the placing of Plum Brook in a standby status. Instead, it is our unanimous recommendation that a minimal 50-man operating force, over and above the small planned standby force, be maintained at the station for at least 1 year. One year should be sufficient to determine the outcome of negotiations with the various potential users of the facility.

I am personally very familiar with the nature of Plum Brook—its land, facilities, equipment, and manpower—and I commend the other members of the Science Committee for holding this station in an operating status through fiscal year 1975. Plum Brook is a unique and valuable national resource and we should make every attempt to see that it is more fully utilized.

Mr. Chairman, in summary, the authorization bill now before the House is the result of a very detailed analysis by the Science Committee of each single program proposed by NASA. I believe that the $3.253 billion we are requesting represents a well balanced program in terms of the resources we can make available. This is also a budget which is sufficient to maintain the higher priority efforts within our total space program.

I strongly urge all my colleagues to approve our committee bill.

Mr. TEAGUE. Mr. Chairman, I yield 3 minutes to the gentleman from Georgia (Mr. DAVIS), a member of the subcommittee.

Mr. DAVIS of Georgia. Mr. Chairman, I am pleased to join with the distinguished chairman of the Subcommittee on Aeronautics and Space Technology, Mr. HECHLER of West Virginia, in supporting the NASA authorization request.

The subcommittee on which I have the privilege to serve as ranking majority member has spent many weeks in hearings during the past few years in examining major problem areas such as these:

Maintaining U.S. leadership in world aviation;

Bringing about substantial reduction in aircraft noise; and

Improving aviation safety and reducing airport, air traffic congestion.

For a few minutes I would like to talk about a program which contributes to the solution of problems in all of the areas I have mentioned: Quiet, short haul aircraft technology development.

In fiscal year 1972, the Congress authorized a program called questol, an acronym for quiet, experimental short takeoff and landing aircraft. This program was initiated to develop two experimental flight vehicles to be used in validating quiet, propulsive lift technology. The information from the program was to be used as a foundation for design and certification criteria, noise regulation, and terminal area operations.

The fiscal year 1973 program amount approved by Congress was $27,500,000; however, the funds were impounded by the OMB. In November 1972, NASA selected a contractor and preliminary design work was accomplished. But in January 1973, the program was terminated because of budget cuts dictated to NASA by the OMB.

Last year, the Congress authorized the reinstatement of the questol program and urged that NASA not drop this important technology development from its aeronautical R. & D. effort.

Largely due to our continuing pressure to continue research in this important field of aviation, NASA has devised a program less comprehensive than the questol but also less expensive. The questol would have cost about $64 million whereas the new program, called the quiet research short-haul aircraft, will cost about $30 million.

This program will be carried out in coordination with the Air Force medium STOL transport program—AMST—and will draw extensively upon it. It is important for the Nation and our world leadership role that both of these programs proceed.

The results of the quiet research short haul aircraft program should lead to the United States producing substantially more quiet, safe, reliable, and operationally economic short haul aircraft in the 1980's. These airplanes will not only play a major role in domestic intercity transportation but should become a major factor in helping the United States to maintain its competitive position in world markets.

This type of investment is representative of NASA work in aeronautical re-

search and development: Relatively modest investments by the Government, working in partnership with American industry, result in major national payoffs.

Mr. MOSHER. Mr. Chairman, I yield such time as he may consume to the distinguished gentleman from Florida (Mr. FREY).

Mr. FREY. Mr. Chairman, I rise to offer my enthusiastic support for H.R. 13998. I would also like to compliment the committee chairman, Mr. TEAGUE, and our ranking minority member, Mr. MOSHER, and my subcommittee chairman, Mr. FUQUA, for their leadership in restoring and strengthening what I personally consider to be a tightly constrained and financially inadequate NASA budget.

Mr. Chairman, although the NASA program has been covered in rather comprehensive fashion by the speakers preceding me, I would like to take a moment to highlight what I consider to be the keystone of our entire space effort. I am speaking, of course, of the Space Shuttle.

As I have pointed out a number of times to my colleagues, we now stand at the threshold of a new dimension in the concept of space transportation. History has shown us that major developments in land, sea, and air transportation have signaled profound changes in human affairs—if the time was right, if the need was there, and if the new potential was grasped. And it is my sincere conviction that "that next major development" is the Space Shuttle.

This vehicle represents much more than an extension of America's program for the exploration of outer space and the environment of Earth. It is, in effect, the basis for a new transportation system for man and materials from Earth to outer space and back, and will serve as the foundation for future programs of space research and interplanetary exploration. Realistically, its purpose is to lower the economic barrier which now limits the utilization of space for economic and social objectives. Achieving these objectives will help us to deal with important national and global problems confronting us now and in the future.

I cannot overemphasize, therefore, that one of the primary reasons for the Space Shuttle is to effect a substantial savings in the taxpayer's money. Whatever benefits mankind chooses to seek from space will come at a much lower price because of the Space Shuttle. Even at half the expected level of space activity over the next 10 years, development costs of the Space Shuttle can be completely amortized against savings on launch costs alone. Any enterprise in a competitive market which failed to modernize its plant and equipment to achieve this kind of timely increase in productivity would not be in business long. NASA clearly recognizes this situation, and accordingly has assigned the Space Shuttle its top priority.

Some of the specific benefits identified by extensive independent studies over the past few years make the reasons for the Space Shuttle even more apparent.

For instance, fewer types of launch vehicles will be required. All Thor, Atlas, Titan, Titan IIIC, and Saturn I missions will be flown by the Space Shuttle. Only the Scout for the very small payloads and the Saturn V for a few very large payload missions will be retained. Thus, the significant economies will be realized in terms of facilities, support equipment, personnel, and the attendant logistic support.

Moreover, once the Space Shuttle's development costs are written off, the recurring cost per pound for placing payloads in orbit is expected to drop to as low as $100 as compared to $700 to $800 for the most efficient expendable launch vehicles now in inventory. Added to this will be the reduced costs of the space vehicles we choose to place in orbit. Responsible independent studies have shown that satellites and equipment to be used in space may cost one-third less when this equipment is designed to take advantage of the more benign Shuttle launch environment, on-orbit maintenance, and recovery for reuse provided by the Space Shuttle. These savings from reduced space payload costs may approach $1 billion per year in the early 1980's.

But these statistics and facts all tend to mask the full promise of the Space Shuttle concept—the concept which holds the option to improve our lives, our hopes, and our future by enabling us to achieve a more fundamental partnership with our planet and ourselves. In actuality, through the Shuttle program we are directing our resources and talents to the many scientific areas which will be benefited by experiments carried on board the Space Shuttle. These are areas such as communications, weather, navigation, agriculture and forestry, astronomy, Earth resources, oceanography, pollution control, and energy. To highlight any one of these areas is to do injustice to the magnitude of the contribution the Space Shuttle will make to all other areas, but the Shuttle's influence and impact on the energy crisis is clearly indicative.

The national and world demand for energy will continue to grow in the decades ahead. The rise in consumption of electricity in particular will represent an increasingly large fraction of the overall energy demand. At the same time, the more economically accessible energy sources such as crude oil and natural gas show signs of near-term depletion. Recovery of new reservoirs of fossil fuels, on the other hand, such as tar and oil shale, draw opposition on environmental grounds. Thus, we are confronted by an unrelenting demand for energy resources in the face of societal opposition to full-scale exploitation of recoverable resources.

One of the energy resources which offers the greatest promise for large-scale recovery and utilization is solar power. This is not so much recovery and utilization of solar energy impinging on the Earth as it is the transmission and distribution of solar energy through a power relay satellite. Such a concept involves energy beamed from the space-borne power-generating complex to a passive relay satellite which, in turn, converts and reflects microwave energy into the consumer area where the energy is reconverted to electricity in clean high-efficiency electromagnetic powerplants.

The feasibility of a power relay satellite is now undergoing intense scrutinization by NASA and private industry. Preliminary study thus far indicates such a system holds great promise in helping this Nation achieve the kind of self-sufficiency now being called for.

But the key element in the feasibility of such a system is the availability of the Space Shuttle. The Space Shuttle affords the only means by which such a massive facility can be orbited, augmented, and maintained.

Again, I emphasize that the energy field is only one of a sizable number of areas in which the Space Shuttle will have significant impact.

Mr. Chairman, the money being requested for the Space Shuttle program for this year—$820 million—is indeed a sizable figure. However, because of the outstanding management control being exercised by NASA headquarters, the Shuttle funding requested is actually less than anticipated in earlier planning. But NASA has assured the committee that only minor delays will be incurred due to the budget cutback, and I for one would like to take this opportunity to compliment them for their ability to closely hold to original cost targets and be able to react in such dynamic fashion to the administration-imposed budget reduction.

Clearly, the Space Shuttle is one of the outstanding and highest priority efforts our space program has ever undertaken and I encourage my colleagues to provide this program their unqualified support.

Mr. MOSHER. Mr. Chairman, I yield such time as he may consume to the gentleman from Michigan (Mr. ESCH).

Mr. ESCH. Mr. Chairman, I appreciate the gentleman from Ohio yielding to me this time. I, too, would like to commend our chairman, the gentleman from Texas (Mr. TEAGUE), and our ranking minority member, as well as the ranking member of the subcommittee on which I serve, the gentleman from Missouri (Mr. SYMINGTON) and also our staff on the work they have done, and for their very diligent efforts in conducting the hearings in the field, and on oversight on these matters, in order to bring this bill to the floor.

Mr. Chairman, I rise in support of H.R. 13998, the NASA authorization bill for fiscal year 1975.

Mr. Chairman, I commend NASA for establishing a balanced program of space exploration and Earth-related scientific adaptations. Space exploration will serve the dual role of increasing our knowledge about other planets as well as increasing our knowledge about ourselves. Missions

such as Mariner 10 and Pioneer 10 have provided scientists with new insights into the characteristics of Mars and Jupiter.

Satellite systems such as ERTS (Earth Resources and Technology Satellite) are particularly significant at this time, because they can help identify areas likely to contain energy resources. By using this new capability to the fullest we can assess our energy reserves much better. In turn, we will be able to make a better long-range distribution of our resources.

Work on the Space Shuttle continues to make good progress. The Space Shuttle will give us the capability to capitalize fully on the potential which space offers. Our brief time in space has paid rich dividends. By providing a stable, long-term research platform in space, man will be able to collect, digest, and learn from all that space has to offer. Such a platform has the added feature of being equally well suited for research regarding the Earth or space.

We can all take pride in the outstanding achievements which NASA has accomplished in space. They reflect the overall resourcefulness, ingenuity, and perseverance of Americans. At the same time I encourage NASA to give appropriate emphasis to aeronautics—the second letter in its name. Our mastery of space does not mean that there are no achievements left to be made on the original breed of "space"-craft—aircraft.

Aircraft noise and airport congestion have become formidable problems. They are aggravated by the ever increasing use of aircraft for business and pleasure travel. As the airplane becomes established in our living patterns, we must see to it that the negative side effects which accompany it do not likewise become established. Our recent experience with the automobile teaches us that we must meet the problems head on, now, while they are still manageable.

NASA has launched a multi-directional attack on the aircraft noise problem. An attack that looks to short-term remedies and long-term solutions. NASA is investigating two-segment landing approaches for commercial carriers which result in a significant noise reduction. The technique also results in a fuel saving over the normal landing procedure.

A more permanent way to eliminate much jet engine noise is by modifying the design of engines currently in service to reduce the velocity of the air passing through the engine. Jet engine noise is proportional to the velocity of the air passing through it, so a velocity reduction will produce a corresponding noise reduction. The modification is called refan retrofitting and its future is promising.

Airport congestion is responsible for impeding the convenience and promptness which air travel offers. Besides the aspect of distraught passengers, it is a contributing factor in airport accidents. NASA is seeking to resolve this situation by improved instrumentation and new techniques. Improved instrumentation will allow for closer spacings of takeoffs and arrivals; and reduced runway occupation times.

Mr. Chairman, I believe the current NASA bill represents a responsible measure designed to produce results in space and on Earth. It is a balanced effort which strives to get the most out of every dollar. I exhort my colleagues to join me in backing it.

Mr. TEAGUE. Mr. Chairman, I yield 4 minutes to the gentleman from Florida (Mr. FUQUA), the Chairman of the Subcommittee on Manned Space Flight.

Mr. FUQUA. Mr. Chairman, for 7 of the past 9 years the budget for the National Aeronautics and Space Administration has declined. The budget for fiscal year 1975 represents a budget which is slightly more than last year, but less than that which is necessary in the long run to maintain an adequate space program. In testimony before the full committee, under the leadership of the distinguished gentleman from Texas (Mr. TEAGUE) and in the Subcommittee on Manned Space Flight, NASA has stated that there was a decrease of $96.2 million from the amount requested of the Office of Management and Budget for the manned space flight program for fiscal year 1975. The reason I cite these facts is to point out the continuing critical position NASA finds itself in in accomplishing its programs.

In testimony before our committee, Dr. Fletcher, the Administrator of NASA, has continued to point out that a total annual budget of $3.4 billion is needed on a sustained basis to assure an adequate national space program. The budget before you today is below that level.

NASA's efforts in the Mercury, Gemini and Apollo programs are all well known to the Members of this body. The recently completed Skylab program has been an unprecedented success. The most valuable lesson that we have learned from Skylab is that man has an essential and important role in the utilization of space for his benefit. All of these programs continue to benefit our Nation by providing equipment and technology which has become part of the daily lives of the people of this Nation and the world. All of our lives are significantly better because we have had the foresight and the will to undertake difficult, high technology space programs. In July of 1975, the Apollo-Soyuz test project will accomplish a rendezvous and docking with the Soviets.

In addition to this, a number of significant experiments which are outgrowths of our Skylab program will be continued on this flight. Following the Apollo-Soyuz test project, the first orbital flight of the Space Shuttle is scheduled for the second quarter of 1979. In the case of the Space Shuttle program, our first low-cost space transportation system, the Office of Management and Budget reduced by $89 million the funds requested. Your committee restored $20 million for Space Shuttle main engine development work recognizing that technology problems associated with early development phases of such a complex program required additional effort. By this addition, it is expected that both cost and schedule will be maintained under control, and in fact, possibly improved for the Space Shuttle main engine work. Your committee reduced by $5 million funds requested for the Apollo-Soyuz test project based on the knowledge that successful management of this program has allowed significant economies in its accomplishment without sacrificing cost, performance or schedule.

NASA is to be complimented for the excellent management which allows such a reduction. Also $10 million was eliminated from the development, test and mission operations portion of the manned space flight request. The committee observed that sufficient carryover of funds would be available such that this reduction would in no way impair NASA's technology support of the manned space flight programs.

In construction of facilities, a net reduction of $9 million was made. This reduction was possible for several reasons. Modifications to launch complex 39 for the Space Shuttle will be accomplished over several years. Since the contract for final design has just been awarded, it was clear to the committee that portion of the funds requested, $7 million, could be deferred until the next fiscal year since obligation of these funds would be unlikely in fiscal year 1975. NASA also proposed the construction and modification of solid rocket motor production and test facilities at a location yet to be determined. This request for $4 million was deferred by your committee since no firm facilities requirement has been determined for this project.

Therefore, the committee recommends that the $4 million for this request be deferred until such time it is determined that such a need exists. NASA also proposed the construction of an orbiter horizontal flight test facility for a 12- to 18-month test program at the Edwards Air Force Base. After review, it was determined that NASA's needs in aeronautics research programs extended beyond the limited facility which would be provided for the Space Shuttle in this request. Therefore, the committee added $2 million additional funding to provide a facility meeting the needs of the total NASA aeronautics program at the Flight Research Center. It was the view of the committee that it would be more prudent to build an adequate facility for total needs at this time and ultimately save later costs to modify the smaller, proposed Shuttle facility. The committee is also recommending with respect to the construction of orbital landing facilities at the Kennedy Space Center the rescission of $10.9 million in fiscal year 1974 funding.

This rescission in previous authorization for this facility is recommended so that excess authorization will not be created for this facility since adequate funding is recommended within this bill to complete this facility. I would like to call attention to the fact that the committee adopted a strong view with re-

spect to the capabilities associated with NASA personnel and facilities. It is the view of the Committee that NASA's scientific and technical capabilities in terms of both people and facilities provides an unequaled opportunity to use these capabilities in areas of high technological content critical to our Nation's needs. NASA's expertise in scientific and engineering areas is second to none and offers much to our Nation as we approach the time when we must solve difficult problems related to energy, transportation, and the environment. The committee has recommended that NASA undertake a scientific and technological inventory of its capabilities with an eye to their application to meeting critical national needs. I share with my colleagues on the committee the feeling that this is of importance to the Congress and the whole Nation that NASA's prowess be brought to bear in these areas. As the distinguished Chairman of this Committee, the gentleman from Texas, Mr. TEAGUE stated:

Our national wellbeing is closely tied to an expanding technology and our national space program is in the forefront of providing that technology.

The view expressed by our Committee embodies the realization that this is not only a true statement, but a necessary demand to be met in the interest of our Nation.

I am including in my remarks a table summarizing the actions taken by the Committee in the manned space flight portion of the budget.

[In thousands of dollars]

Budget line item	Fiscal year 1975 budget request	Subcommittee recommendation
Space Shuttle	$800,000	$820,000
Orbiter	(647,500)	(647,500)
Main engine	(92,300)	(112,300)
Solid rocket booster	(22,600)	(22,600)
External tank	(26,000)	(26,000)
Launch and landing	(11,600)	(11,600)
Space flight operations	323,300	308,300
Appollo/Soyuz test project	(114,600)	(109,600)
Development test and mission operations	(175,200)	(165,200)
Space life sciences	(18,000)	(18,000)
Mission systems and integration	(15,500)	(15,500)
Advanced missions	1,500	1,500
Total, R. & D	1,124,800	1,129,800
Construction of facilities	[1] 86,955	[1] 77,955
Research and program management	346,133	346,133
Manned space flight total	1,557,888	1,553,888

[1] Excludes $8,251,000 for agency-wide supporting activities.

Mr. Chairman, the Subcommittee on Manned Space Flight held intensive hearings in Washington and in the field to fully examine the manned space flight portion of the NASA budget. Testimony was taken from NASA management, industry, the Air Force and the European Space Agency. You will note, from the summary that your committee recommends seven changes to the manned space flight portion of the NASA budget request for fiscal year 1975. They are as follows:

Space Shuttle—Addition of $20 million for main engine development.

Apollo/Soyuz Test Project—Reduction of $5 million.

Development, Test and Mission Operations—Reduction of $10 million.

Construction of Facilities—A net reduction of $9 million.

To place these recommended changes in perspective it should be noted that:

The NASA Manned Space Flight Research and Development request for fiscal year 1975 is $96.2 million less than the funds requested from Office of Management and Budget.

The NASA Space Shuttle request for fiscal year 1975 is $89 million less than the amount requested from the Office of Management and Budget for fiscal year 1975.

The NASA Space Flight Operations request for fiscal year 1975 is $232.2 million less than authorized for fiscal year 1974.

No funds are included in the fiscal year 1975 budget for the Skylab program which has been successfully concluded.

In examining the manned space flight request submitted by NASA, it is clear that this budget is at a level which severely limits NASA program opportunities. It assumes that success will be achieved with little or no development program problems. Such a posture could easily lead to higher program costs in future years when the typical problems of space development work are encountered.

Notwithstanding these considerations, the subcommittee felt that the need for restraint in budgeting also was essential and a small net reduction—$4 million—was the result of several changes. Therefore, the following program amounts are recommended.

SPACE SHUTTLE

NASA requested $800 million for the Space Shuttle in fiscal year 1975. As has been brought out in testimony before the committee, the Space Shuttle program buildup has been constrained by tight cost ceilings in fiscal year 1974. Difficulties have been encountered in activating main engine test facilities and completing main engine components tests. An increase of $20 million for the Space Shuttle program in fiscal year 1975 will provide for increased funding for the Space Shuttle main engine work which has encountered technical problems typical of early development phases of such a program. These additional funds will aid in meeting the current milestones for the Space Shuttle program of a first horizontal flight in 1977 and the first manned orbital flight in the second quarter of 1979.

The net effect of this addition of $20 million to the Shuttle main engine program should add confidence to meeting schedules and to holding total program costs at the current projection. Therefore, your committee recommends $820 million for the Shuttle program for fiscal year 1975.

SPACE FLIGHT OPERATIONS

NASA requested $323,300,000 for space flight operations in fiscal year 1975, $232,200,000 less than authorized in fiscal year 1974. Of the four areas within this line item, your committee made two changes:

Apollo/Soyuz Test Project—The Apollo/Soyuz test project is currently on schedule and within projected costs for fiscal year 1974. A launch on July 15, 1975, is expected to accomplish a rendezvous and docking with the Soviets and to conduct experiments in space augmenting a number of experiments conducted on the Skylab program, as well as other new experiments. Because of the success of the management of the Apollo/Soyuz test project, it is possible to reduce the funding for the project in fiscal year 1975. It should be noted that this reduction will in no way effect the addition of experiments as urged by your committee. The savings can be realized from the operational portions of the program. Therefore, your committee recommends $109,600,000 for the Apollo/Soyuz test project for fiscal year 1975.

Development, Test and Mission Operations—The development, test and mission operations are an essential component of all portions of the manned space flight program. They represent funds which provide contractor support to key mission oriented effort. Testimony indicated a carry-over of $18–20 million in development, test and mission operations from fiscal year 1974. Based on this information, your committee reduced the development, test and mission operations by $10 million. Therefore, your committee recommends $165,200,000 for development, test and mission operations for fiscal year 1975.

The committee recommends a total of $1,129,800 for research and development for manned space flight in fiscal year 1975.

CONSTRUCTION OF FACILITIES

NASA requested $86,955,000 for construction in support of manned space flight activities, excluding facility planning and design, minor construction and rehabilitation and modification work at the field centers which have been programed as part of agencywide project proposals.

Of the $87 million basic construction request, $86,020,000 was proposed for 10 projects directly in support of the Space Shuttle program. One nonshuttle-related facility has been requested at the Johnson Space Center in the amount of $935,000 for modifications to the center water supply system.

The committee has concluded that 7 of the 11 projects, for which authorization has been requested, should be approved. The other four construction projects require either adjustment or deferral.

The committee considers that shuttle-related projects in the amount of $77,020,000 should be approved.

The committee also considers that the one nonshuttle-related project for modifications to the water supply system at Johnson—$935,000—should be approved.

Our review has concluded that the

NASA bill should be amended concerning the four remaining projects:

Construction of Orbiter landing facilities, Kennedy Space Center, $15,880,000. This project includes the second increment of the project authorized for these purposes last year in the amount of $28.2 million. The fiscal year 1974 Appropriations Act, however, included only $17.3 million, leaving $10.9 million of the authorization unfunded. The NASA fiscal year 1975 request of $15.9 million includes $4,980,000 for new requirements and seeks reauthorization of $10.9 million for which appropriations were not granted last year. The committee does not agree with the NASA approach in this matter since it would result in duplicate authorization. However, we believe the project should move forward, since the construction contract has already been awarded. Accordingly, the committee recommends that the full amount requested, $15,880,000 be authorized, but that the bill be amended—section 1(h)—to rescind 10.9 million authorized last year.

Modifications to Launch Complex 39, Kennedy Space Center, $42,690,000. This project is the first increment of a $90 to $95 million project to meet the launch requirements for the Shuttle. This increment involves modifications to the vertical assembly building, one mobile launcher, and one launch pad. The committee agrees with the NASA proposal that this work proceed at the earliest practicable date and we recommend approval of the scope of work for the first increment as presented in the request. However, the committee considers that it is highly unlikely that the full amount requested could be obligated during fiscal year 1975, particularly in view of the facts that: a 360-day contract for final design has just been awarded; 6- to 12-month delays in procurement of critical materials such as structural steel, high-pressure pipe, and so forth, are being experienced; and specific "work packages" for the project have not been defined. Accordingly, the committee recommends the deferral of $7.0 million, and that the fiscal year 1975 project be authorized in the amount of $35,690,000.

Construction of Orbiter horizontal flight test facilities, Flight Research Center, $1,940,000. The NASA proposal involves the construction of a minimum size flight test hangar, limited shop space, and temporary office space housed in trailers, justified solely on the basis of meeting the 12- to 18-month horizontal flight test program for the Shuttle Orbiter. The committee believes such a facility should be built to serve longer term needs and should be designed for long-range aeronautical research needs and used initially to support the Shuttle. There are no other available hangars at the Flight Research Center to meet either the Shuttle or the long-term aeronautical research needs. Accordingly, the committee recommends the addition of $2 million to this project to provide the first increment of a facility for aeronautical research.

Construction/modification of solid rocket motor production and test facilities—location to be selected—$4,000,000. The committee is not convinced that a valid requirement currently exists for these facilities. As the committee is aware, the selection of the prime contractor for the development of the solid rocket booster has been protested by one of the unsuccessful bidders. Facilities requirements are not firm, and in fact, there is some indication that expenditure of Federal funds for these purposes may not be required, depending upon the outcome of the protest now under consideration. In any event, reprograming authority is available to NASA should an urgent need arise. Pending the development of firm requirements, the committee recommends that the $4 million requested for these purposes be deferred.

In total, for the manned space flight portion of the construction of facilities, the committee recommends approval of $77,955,000 and a net deferral of $9 million for facilities to be authorized for manned space flight.

RESEARCH AND PROGRAM MANAGEMENT

The fiscal year 1975 request for Research and Program Management for Manned Space Flight activities totals $346,133,000 or 46.2 percent of the total NASA request. These funds are required to provide the civil service manpower necessary for in-house research, planning, management and support of the on-going research and development effort, as well as the costs of operating, maintaining and supporting the three manned space flight field centers and their satellite installations.

Included in the amount under consideration is the estimated costs of salaries, maintenance and operating expense for the Kennedy Space Center—including support for the NASA element at the Western Test Range—$96.7 million; the Johnson Space Center—including the White Sands Test Facilities—$118.2 million; the Marshall Space Flight Center—including the Mississippi Test Facility, the Michoud Assembly Facility, and the Slidell Computer Complex—$131.2 million.

The committee considers that the Manned Space Flight Research and Program Management request for fiscal year 1975 is sound and recommends approval of the $346,133,000 requested.

SUMMARY

In summary, your committee has made several adjustments in the Manned Space Flight portion of the fiscal year 1975 NASA request, and recommends that the committee approve for authorization a total of $1,553,888,000 consisting of: $1,129,800,000 for Research and Development; $77,955,000 for Construction of Facilities; and $346,133,000 for Research and Program Management.

SPACE TUG

While the Space Shuttle is under development, an important adjunct to its capability will be the development of a Space Tug. This vehicle would deliver payloads from the Space Shuttle in low earth orbit to geosynchronous orbit or deep space. It would be an unmanned propulsion vehicle capable of transporting automated payloads to their destination. The Subcommittee on Manned Space Flight in an intensive review of this area in September-November 1973 reviewed the alternative available in providing a Space Tug for use with the Space Shuttle. It was clear from this review that it would be possible to utilize in the period 1979–1985 an existing upper stage vehicle modified for use on the shuttle. A number of such vehicles are available for this purpose requiring only a determination as to which would be most economical.

Following the 1985 period, NASA has stated requirements for a tug which would be fully reusable and would retrieve payloads from orbit. Since the interim vehicles would not possess this full capability, a full development program would be required for more sophisticated post 1985 Space Tug. Both NASA and the Department of Defense have established a substantial requirement for such a vehicle. The Department of Defense has determined that 60 percent of the satellite payloads in support of the national defense must be delivered to high energy orbits. Since several of the candidate upper stages available for modifications as Space Tugs were developed to meet Department of Defense requirements, and a large portion of the Department of Defense satellite payloads require such a vehicle, an interim design was reached by the National Aeronautics and Space Administration and the Department of Defense to have the Air Force manage and modify an existing stage as a Space Tug.

Such a vehicle will meet the early needs of both NASA and DOD at a minimum cost allowing for later development of a more sophisticated vehicle in the 1980's by NASA. To gain maximum economy in the Space Shuttle, it is important that this program be undertaken. I mentioned this today because it is an integral part of both the NASA and the DOD plans for full Space Shuttle utilization.

MISSION MODELS

NASA has continued to perform detailed cost analysis associated with the Space Shuttle program versus the conventional expendable launch vehicles presently in inventory.

In January of this year, NASA published a detailed technical memorandum entitled "The October 1973 NASA Mission Model," which shows that the Shuttle results in a cost benefit of $14.1 billion for the 12-year period of 1980–91. Copies of this memorandum are available to all Members of Congress if you so desire.

The October 1973 NASA mission model provides a projection of possible future payloads for the Shuttle era based upon current agency planning and user community interest. The cost of implementing this payload program utilizing the capabilities of the Shuttle system is then analyzed and compared to the cost of

implementing the same payload effort using expendable launch vehicles. This analysis provides a basis for determining the cost effectiveness of the Space Shuttle system for space exploration and application in the future.

Just to give you some overview figures contained in the report, NASA has now documented a potential of 805 flights carrying a total of 986 payloads for the 1980–91 time period. To accomplish the same amount of payload activity with an expendable launch vehicle system would require on the order of 685 flights with no return of launch vehicle nor payload hardware. In terms of 1972 dollars, this works out to be $63.4 billion for the expendable system versus $49.3 billion for the Space Shuttle.

The 1973 mission model defines every user agency's requirements, including purpose, launch period, and number of payloads and flights. It includes not only NASA requirements, but also the Department of Defense, U.S. Government, Domestic Commercial Missions plus foreign launches and payloads.

NASA is to be commended for its thoroughness in preparing this document and I encourage them to keep up the good work. The following chart is a summary cost comparison by major user which I hope you will find of interest.

1973 MISSION MODEL SUMMARY COST COMPARISON BY MAJOR USER

	Vehicle and payload comparison				Program cost comparison (1972 millions)						
	Expendable case (best mix P/L)		Shuttle system case		Expendable case (best mix P/L)			Shuttle system case			
Category	Number Flts.	Number P/L	Number Flts.	Number P/L	P/L total	L/V total	Prog. total	P/L total	L/v total	Prog. total	Benefits
Automated S/C:											
NASA	191.0	211	156.3	221	$16,604	$2,502	$19,106	$13,432	$1,898	$15,330	$3,776
Non-NASA	81.0	125	73.7	125	4,928	1,271	6,199	4,057	890	4,947	1,252
DOD	231.0	303	271.0	304	11,905	3,559	15,464	9,026	2,679	11,705	3,759
Subtotal	503.0	639	501.0	650	33,437	7,332	40,769	26,515	5,467	31,982	8,787
Sorties:											
NASA	138.0	138	255.7	286	10,035	3,095	13,130	4,119	2,671	6,790	6,340
Non-NASA	30.0	30	48.3	50	2,828	942	3,770	1,011	506	1,517	2,253
Subtotal	168.0	168	304.0	336	12,863	4,037	16,900	5,130	3,177	8,307	8,593
Total:											
NASA	329.0	349	412.0	507	26,639	5,597	32,236	17,551	4,569	22,120	10,116
Non-NASA	111.0	155	122.0	175	7,756	2,213	9,969	5,068	1,396	6,464	3,505
DOD	231.0	303	271.0	304	11,905	3,559	15,464	9,026	2,679	11,705	3,759
L/V range supp						1,860	1,860		187	187	1,673
Subtotal	671.0	807	805.0	986	46,300	13,229	59,529	31,645	8,831	40,476	19,053
Nonrecurring invest	[1] 14.0	[1] 14					3,939			8,392	−4,953
Grand total	685.0	821	805.0	986			63,468			49,368	14,100

[1] Space station launches and space station logistics.

EQUAL EMPLOYMENT OPPORTUNITY

The Subcommittee on Manned Space Flight held extensive hearings at the NASA field centers and at the key industrial contractors plants. Incorporated in these field hearings are a number of briefings requested to establish NASA's efforts in equal opportunity employment and to examine the affirmative action programs of the industrial contractors. I am pleased to report that the attitudes and efforts being directed to this program are positive and are making headway. As the distinguished chairman of this committee has pointed out, the Administrator of NASA and the management of NASA are not satisfied with the progress made in these programs and have set firm goals and objectives, which are clearly understood, to improve minority and women employment. The management of each center in hearings held by the Subcommittee on Manned Space Flight indicated concerted effort is being made not only to recruit professional minority and women personnel, but to upgrade the training of people within their organizations so that they may assume positions of greater responsibility. The goals which have been set in these areas will not be easily made, but appear to be achievable. It is clear from the testimony that even when these goals are met that NASA will need to continue a concerted effort to assure an opportunity is provided for minority and women professionals and to upgrade the skills of the personnel within NASA. I believe that the management of NASA is now dedicated to accomplishing this.

SKYLAB

The outstanding success of the Skylab program marks a major turning point in using the vast potential of space operations for the benefit of all mankind. The scope of the Skylab accomplishments not only reaffirms the role of man in space operations, but also proves the value of space in advancing science and technology and contributing to the study of the pressing problems facing our planet. The unparalled productivity of the Skylab missions, which are yielding extensive scientific, medical, technological, and earth resources returns, is a preview of the tremendous opportunities ahead in the shuttle era.

Skylab, the Nation's first experimental space station, orbits at an altitude of approximately 270 miles above the Earth. The Skylab station provided a highly versatile, sophisticated set of laboratories with a capability for multipurpose scientific and applications experiments. During its nearly 9 months of operation, Skylab crisscrossed an area 50° north and south of the equator, where most of the globe's population is concentrated. The 3 Skylab crews carried out more than 50 major research programs and hundreds of separate investigations developed by specialists in universities, observatories, medical schools, industry, and Government agencies throughout the United States and abroad. From its unique vantage point in space—beyond the atmospheric veil of Earth—Skylab's sensors searched out and recorded new and far-reaching information about the solar system, the Sun, the Earth, and man himself.

The objectives of the Skylab program were to determine man's ability to live and work effectively in space for prolonged periods of time, to extend the science of solar astronomy beyond the limitations of Earth based observations, to develop improved techniques for surveying Earth's resources and environment from space, and to advanced knowledge in a variety of other scientific and technological disciplines.

The first two Skylab manned missions more than met these objectives and the third and final manned mission, which is nearing completion, is progressing extremely well. The Skylab 2 mission with Astronauts Conrad, Kerwin, and Weitz as the crew, was launched on May 25, 1973, and completed on June 22. During their 28-day stay, the crew not only carried out a vast array of scientific and applications experiments but also succeeded in repairing the Skylab station, erecting a sunshield to lower the temperature and releasing the jammed solar cell array. Both problems resulted from the loss of the Skylab's micrometeoroid shield shortly after the launch of the Skylab workshop on May 14, 1973. These repairs, which testified to the ingenuity and persistence of a tireless ground and flight team, spelled the difference between program success and failure. The

Skylab 2 crew demonstrated the indispensable value of man's judgment and capability to respond rapidly to problems, as well as unforeseen opportunities. The 28-day mission confirmed man's ability to live and work comfortably and efficiently in space. Despite the early difficulties, the major milestone objectives were met. About 80 percent of the planned solar observations time and 80 percent of the Earth resources passes were accomplished.

The second Skylab manned mission—Skylab 3—was launched on July 28, 1973, and completed on September 25. During almost 2 months—56 days—the flight crew, composed of Astronauts Bean, Garriott, and Lousma, carried out a highly productive, varied program of experiments. Again, the outstanding efforts of the flight crew and ground team surmounted a series of problems, ranging from the command module's reaction control system thrusters to the airlock's cooling system. Among its repair activities, the crew erected a second, supplementary sunshield and installed a special cluster of rate gyros. After an initial adjustment period, the crew found that they could easily work ahead of the preflight plan. Their efficiency and flexibility allowed additional, unscheduled tests and experiments to be conducted. As a result, the yield of experiment data from Skylab 3 exceeded even the most optimistic premission expectations. The crew sustained a high level of performance and capitalized on unforeseen, unique opportunities for solar and Earth observations. All 16 of the medical experiments required by the flight mission plans were accomplished, measuring the course of man's adaption to zero gravity. The Skylab living accommodations were highly satisfactory and zero gravity conditions proved an aid to most activities. As key indicators of the Skylab 3 mission's productivity, about 130 percent of the scheduled ATM solar observing time was accomplished—305 hours of actual observing time—and all the joint observation program tasks were carried out. In addition, 44 Earth observations data runs were conducted, significantly surpassing the total of 28 Earth resources experiment passes planned. Student experiments were also successfully conducted.

The third and last Skylab manned mission—Skylab 4—was launch on November 16, 1973. The Skylab 4 mission, with Astronauts Carr, Gibson, and Pogue as the crew, is adding significantly to the previous Skylab returns. Assuming that all continues to go well, the mission can last up to 85 days—almost 3 months' experience in space and a month longer than previously planned. The crew is continuing the solar physics, Earth resources, and medical experiments. In addition, the crew is using the solar telescopes and special cameras for observations of the comet Kohoutek.

With the completion of the third manned mission—February 8, 1974, for the extended 85-day mission—the flight phase of the Skylab program comes to an end. Its successful completion signals the beginning of a comprehensive, intensive period of activity as the hundreds of Skylab principal investigators all over the globe analyze and interpret the results of the experiments. From preliminary indications, the results will not only exceed all expectations but will also test and perhaps revolutionize many scientific theories. The harvest is just beginning and a new era of increasingly productive space operations—the shuttle era—is opening up. The preliminary Skylab results are a preview of the vast potential in the shuttle era.

EARTH RESOURCES EXPERIMENTS PACKAGE

The quality and variety of the returns from the Skylab earth resources experiments dramatically demonstrate the down-to-Earth dividends of space operations. From a vantage point in space, the Skylab crews have used remote sensing devices and high resolution cameras to study the Earth's environment and resources. Combined with the crews' knowledge and judgment, the complex Skylab equipment furnished an invaluable set of tools for acquiring critical information about spaceship Earth. The Skylab data will extend our knowledge about the Earth with the purpose of better understanding its resources and processes.

During the first two Skylab manned missions, valuable data on the continental United States and 34 other nations was acquired. The crews also collected detailed data on the Atlantic and Pacific Oceans, the Gulf of Mexico, the Caribbean and the Mediterranean Seas, the South China Sea, the Sea of Japan, and the Gulf of Aden. Over 20,000 earth photographs and 25 miles of computer tapes from the first two missions will be undergoing extensive analysis by 137 principal investigators throughout the United States and abroad. The Skylab 4 Earth resources experiments, with up to 50 passes possible, will significantly increase the storehouse of electronic and photographic data.

The Skylab Earth resources surveys included research projects in geology that could lead to the discovery of potential sources of oil, coal, and essential minerals. A principal investigator has reported that his study of Nevada geology uncovered a region likely to contain a significant mineral deposit. The Skylab surveys have also yielded initial information on potential geothermal energy resources in the Western part of the United States and Mexico. Other Skylab geological investigations involved the study of volcanoes in Nicaragua and Italy and earthquake faults in California.

Urban studies are another important facet of the Skylab earth resources experiments. During the first two manned missions, 13 U.S. urban centers were photographed: Asheville, N.C.; Aurora and Peoria, Ill.; Cedar Rapids, Iowa; Denver, Colo.; New Orleans, La.; Phoenix and Tucson, Ariz.; Pontiac, Mich.; Riverside-San Bernardino and San Francisco, Calif.; Salt Lake City, Utah; and the Baltimore, Maryland-Washington, D.C. area. The Department of Interior's U.S Geological Survey will attempt to calculate population growth since the 1970 Census, based on the high spatial resolution Skylab photography. This type of photography holds a great promise for regional planning and land use in urbanized areas. In addition, the Skylab remote sensing techniques were used to acquire survey data on vegetation patterns in States such as California, snow cover depths in Oregon's Columbia River basin, and pollution and weather data in the Great Lakes area.

Meteorological investigations represent another major area of study. Photographic and remote sensing data from Skylab, correlated with the supporting aircraft data, will improve our understanding of weather phenomena, including the development of hurricanes, tornadoes and hailstorms. The Skylab crew, for example, obtained extensive data on the course of Hurricane Ava in the Pacific and storms in Oklahoma and Texas. The influence of eddy currents, observed off the Yucatan Peninsula by the Skylab crews, on ocean currents and weather forecasting techniques is also being assessed.

In addition, the Skylab Earth resources surveys are uncovering data that can be used to study conservation of precious water resources. Skylab monitoring of the central Florida lakes is uncovering useful information on the problem of premature aging of a body of water because of excessive nutrients. This information is being provided to local county planning authorities.

The early Skylab results have also yielded valuable data on sea condition, sedimentation, and marine biology. The Skylab 3 coverage of the Atlantic Ocean's Sargasso Sea, with its millions of tons of seaweed, is also being studied.

The Department of Agriculture is already using Skylab photographs to pinpoint areas along the Texas-Mexico border where insects, such as fire ant and fruit flies, might cross to infect crops.

Skylab experiment investigators in Mali will use the Earth resources data to search dry plains for new water sources. Analysis of the data is expected to provide clues to reverse the southward expansion of the Sahara Desert, which has brought repeated droughts and famine in this part of Africa.

In the final Skylab flight, the crew is concentrating on observations of seasonal changes, sea and lake ice formations, snow cover patterns, and major storms, particularly below the equator. The crew is also conducting comprehensive observations of changes in vegetation in the Northern and Southern Hemispheres.

The Skylab Earth resources experiments, performed by well-trained crews using a sophisticated set of cameras and remote sensing devices, are providing a vast storehouse of information about the Earth. The results have great potential in advancing the study of geology, cartology, land and water planning and management, agriculture, forestry, weather forecasting, oceanography, navigation and communication, and other areas affecting the quality of life here on Earth.

The Skylab investigations of the Sun are opening up a modern era of astronomy. The Skylab solar telescope

operating in space above the distorting effects of the Earth's atmosphere, are yielding new, exciting data about the life-sustaining Sun. The data, which are undergoing detailed scientific analysis, promise to revolutionize many of the longstanding theories of solar physics. Scientists are already predicting that the Skylab results will deepen understanding of solar heating characteristics and their influence on the Earth.

The importance of Skylab's solar investigations cannot be overestimated. At a time when energy problems are making an increased impact on the world, Skylab data will lead to a far better understanding of the Suns nature and processes. This knowledge may well lead the way to new means of generating and controlling solar energy for use on Earth. The staggering power of the Sun is illustrated by the fact that in a single second the Sun radiates more energy than man has used since the beginning of civilization. Yet the Earth receives only one two-billionth part of this energy and uses under 1 percent of it.

The Skylab data will also advance scientific knowledge of how solar phenomena affect our planet. For example, the Skylab investigations should help to explain the solar flares that periodically disrupt radio communications and trigger magnetic storms, resulting in power blackouts. The observations of sunspots will provide scientific results that will increase insight into the Sun's effect on weather.

Before Skylab, the Sun's corona was thought to be an essentially unchanging shell of million degree gases. In contrast, Skylab showed that the corona seethes with activity. The crews observed huge solar flares, shooting up over 100,000 miles. During Skylab 2, two "granddaddy" flares produced auroral lights on Earth. Each flare, reaching a temperature of a billion degrees, could supply the Earths energy needs for the next 300 years.

The Skylab studies of the Comet Kohoutek will test theories on the composition of comets and the origin of our solar system. The Skylab telescopes and cameras provide a matchless opportunity to investigate the nature and evolution of the comet and tails as Kohoutek approaches, passes, and recedes from the Sun, not to return for some 75,000 years. Scientists hope to shed new light on the origin of comets. Are comets remnants from the formation of our solar system or are they interstellar matter captured by the Sun? Does a solid comet nucleus exist? Comprehensive coverage of Kohoutek provides a rare opportunity to acquire substantive data to help answer these questions.

The success of the Skylab experiments in space processing under zero gravity conditions adds an entirely new dimension to the science and development of materials. The vital role of materials in the course of civilization is seen in the classification of prehistoric periods—the stone, the bronze, and the iron ages—and mirrored in the high strength, high temperature materials, electronics, plastics and other materials that have spurred rapid advances throughout society.

It was anticipated that zero gravity conditions would provide a favorable environment for manufacturing metal alloys, composites, and crystals. Skylab is proving this to be true. Fourteen space processing experiments have been carried out in the first two Skylab-manned missions. Although in-depth analysis is continuing, some highly promising preliminary results are already available. For example, initial results show that under two completely different processing conditions, large, perfect single crystals of complex substances were grown in Skylab. The size, perfection, and homogeneity of the Skylab crystals surpassed those grown on Earth.

In addition, there are indications that zero-gravity conditions lead to the formation of metals and metal alloys with higher strength and better properties than those processed under gravity.

Experience in processes such as welding, brazing, and cutting is a prerequisite for assembling large structures in space. The results of the Skylab metals melting experiment, in which electron beam cutting and welding techniques were investigated, were excellent. Exothermic brazing techniques were also studied. The Skylab results were better than experienced with ground-processed samples.

The results of the Skylab space processing experiments may well usher in a new era in materials science and engineering. Potential products range from new alloys with highly specialized physical properties to large, perfect crystals with valuable electrical and optical properties. Shuttle-borne laboratories offer tremendous promise for capitalizing on the advantages of space operations in advancing materials science and engineering.

As one Skylab experimenter emphasized:

> We have an opportunity to use the unique advantages of research in space to develop the technology we so desperately need to move forward in the science of materials processing. The possibility that we can directly or indirectly transfer to earth the knowledge derived from space research makes this phase of NASA's Skylab program truly exciting.

Another key area of investigation during the Skylab missions was directed toward increased understanding of the medical effects of space flight on man and the physiological factors that might limit future manned space operations. Before, during and after each mission, repeated tests of the major body functions were conducted. These intensive studies covered the cardiovascular system, nutrition and metabolism, physical work capacity, weight loss and recovery, equilibrium of body fluids, susceptibility to motion sickness, and similar areas. Skylab provided the first opportunity to make detailed measurements in flight that could be used to chart the time course of the various effects. The medical findings revealed no specific effects which set an upper limit on exposure to weightlessness. For the most part, the results confirmed the premission expectations of moderate weight loss, some deconditioning of the cardiovascular system, and very minor loss of calcium in the bones. The crews experienced a higher loss of red cells in the blood than had been expected, and some reduction in the mass of leg muscles.

Vigorous exercise was found to be an effective countermeasure in maintaining general fitness and is thought to account, at least in part, for the fact that the second Skylab crew returned more rapidly to normal than the first crew did. The longer missions showed somewhat greater effects than the 28-day mission, but the process appeared to be leveling off.

Overall, the health and performance of the Skylab crews were highly satisfactory. The Skylab program demonstrated that men can live and work in space for extended periods of time and readapt to the earth environment.

In addition to the major areas of investigation just described, Skylab supported a wide variety of individual experiments, ranging all the way from ultraviolet measurements of stars, nebulae, and galaxies to studies of the flying characteristics of astronaut maneuvering units. The crews also performed some 19 experiments on behalf of the high school students selected in the Skylab student project. Altogether, there were more than 70 other activities.

The Skylab missions attained almost all of the individual objectives, and significantly surpassed its broad goals. The high productivity of the Skylab program proves that space is a rich resource that can be used to the benefit of mankind. The success of the Skylab missions provides scientists, engineers, physicians, and others with a vast storehouse of data and paves the way for multiplying the beneficial returns from space operations. The end of Skylab marks the beginning of a whole new era of opportunity in space—the Shuttle era.

The CHAIRMAN. The time of the gentleman has expired.

Ms. ABZUG. Mr. Chairman, will the gentleman from Texas yield additional time to the gentleman from Florida (Mr. FUQUA) so that I may ask the gentleman a question?

Mr. TEAGUE. Mr. Chairman, I yield 1 additional minute to the gentleman from Florida (Mr. FUQUA).

Ms. ABZUG. Mr. Chairman, will the gentleman yield?

Mr. FUQUA. I yield to the gentlewoman from New York.

Ms. ABZUG. Mr. Chairman, I would say to the gentleman from Florida, as the gentleman probably recalls, I have had considerable objections in the past, which I still do, to the Space Shuttle. It has never been proved to my satisfaction that it is economically justified.

Does the gentleman have any evidence that there is any change, for example, in what the GAO stated in its latest study made last summer that—

> GAO is not certain the shuttle is economically justified . . . Technical problems and the cost overruns that usually follow such problems are more likely on the shuttle and, if they occur, could turn the projected savings into increased cost by 1990.

I might add that I notice that we have been increasing the amount of money for the R. & D. on this authorization since

1972, which then was $100 million, and now it is up to almost $1 billion, or $879 million.

I would ask the gentleman from Florida what that is being spent for? I am very much interested in research and development, I am not opposed to that but, as I have said before, I would like to have some of that money devoted to transportation on our Earth.

Mr. FUQUA. We did hold hearings on the GAO report. I think NASA has satisfactorily answered the questions that came up at that time. The contracts that have been let so far have come in on target, or even below in some areas. We have not experienced any cost overruns. Of course, this is based on 1971 dollars, and now we are in 1974, and we have had inflation, and the dollar today is not worth what it was in 1971.

But, this is based on 1971 dollars——

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

Mr. TEAGUE. Mr. Chairman, I yield 1 additional minute to the gentleman from Florida.

Mr. FUQUA. But, Mr. Chairman, I would say to the gentlewoman from New York that every evidence that we have had has been that we are running on the projections made at that time.

As far as the usability of the Shuttle is concerned, if we are going to continue in space with communications, weather satellites and in other areas of space such as the manufacturing and medicine, we will need this. We are just now beginning to get the payoff from space.

With the money that is going into the Shuttle now, we begin to get into the startup phase. Hardware is being produced. We have activities in different areas, including the State that the gentlewoman from New York represents, so this is a startup cost. Hardware is being produced now, is being tested, and will be assembled probably in another year or two.

Ms. ABZUG. If the gentleman will yield, the only thing that concerns me that has never been satisfied in the answers of the committee, is that the success of this particular program is contingent upon a very high level of use. We need about 10 times the payload of what we have actually been setting up there; so it seems to me that what we are doing is spending a lot of preliminary money, just as I have predicted before. I am sure the next time we come around, we will be into the billions of dollars and we still will not have utilized the payload that is required to make this an efficient system.

We may actually be wasting money and not expanding our technology and research for the needs that we have on this Earth.

I really wish we could get some more information on this, because it is not justifiable, in my opinion.

The CHAIRMAN. The time of the gentleman has expired.

Mr. MOSHER. Mr. Chairman, I have no further requests for time.

Mr. TEAGUE. Mr. Chairman, I yield 4 minutes to the gentleman from Missouri (Mr. SYMINGTON).

Mr. SYMINGTON. Mr. Chairman, I rise in support of H.R. 13998, the NASA authorization bill for fiscal year 1975.

The subcommittee which I have the honor to chair has jurisdiction over NASA's unmanned space flight program.

I want at this point to express my gratitude to members of that committee on both sides, particularly Mr. ESCH on the minority side, for their help in this work. I appreciate the work of our chairman, the gentleman from Texas (Mr. TEAGUE) and the many contributions he has made in this worthwhile program.

Responsibility for this important work is divided between the Office of Space Science and the Office of Applications.

We can all take pride in the accomplishments of the space science program. The media has been full of accounts of the two most recent successful planetary missions—Pioneer 10, which gave scientists their first close look at Jupiter, the largest planet in the solar system; and Mariner 10 which returned remarkable images of cloud-covered Venus, and the even more remarkable pictures of Mercury, the planet closest to the sun which has never before been clearly seen even with the most powerful ground-based telescopes.

The science of astronomy has made greater advances during the past decade than at any time since the invention of the telescope. Because the Earth's atmosphere absorbs and obscures radiations from space, the ability to place instruments in orbit above the atmosphere has opened the way to observing and measuring phenomena which hold the secrets of the origin and evolution of the universe.

The next major astronomical spacecraft, called HEAO, will investigate the celestial sphere in the high energy range of the spectrum. Scientists tell us that because of the new techniques of space exploration we are now on the verge of a golden age of discovery in the science of astronomv.

There is much more that could be said about the accomplishments of the space science program, and while I don't wish to slight space science in my comments today, Mr. Chairman, I would nevertheless emphasize the space applications program.

The annual task of reviewing NASA's budget demonstrating the space program's value in terms of direct benefits to the nation, to its economy, and in improving the quality of life enjoyed by its citizens. This is what the space applications program is all about, and the reason the members of our committee have given it such strong support over the years.

Space applications refers to those satellite systems which provide communications services, meteorological observations, earth resources surveys, navigation, and air traffic control data, among other things. These systems already provide services and information worth hundreds of millions of dollars annually; and the future is even brighter.

Yet, despite repeated urgings by Members of Congress that space applications receive greater emphasis and increased funding, and despite public statements by top officials of NASA that the applications program will receive greater emphasis, the budget for this important work continues to be relatively small.

In a proposed budget of more than $2.3 billion for research and development, only 7.5 percent is designated for space applications—$177.5 million. For all the successes of the past and the great potential for the future, this seems to many of us an unwise distribution of resources.

Let me review some of the accomplishments to date. The first earth resources technology satellite—ERTS–1—launched in July 1972, is supplying remarkable data to help solve problems in agriculture, land use, forestry, hydrology, geography, and geology. Furthermore, the utilization of remote sensing imagery from ERTS–1 is producing great savings to user agencies both in terms of time and costs. The hearing record on NASA's authorization bill contains several examples, one of which was provided by the commissioner, department of natural resources, State of Georgia. The commissioner stated:

> Using the imagery provided through NASA's assistance, we are currently conducting a statewide survey of farm ponds and other impoundments. This study . . . will result in savings of 50–80% of a $4 million budget, relative to a study without remote sensing.

The head of a Dartmouth College project to produce a land-use map of Massachusetts, Rhode Island, and Connecticut, using ERTS–1 imagery, has a similar story. He reported that the image interpretation phase of land-use mapping can be accomplished using ERTS for about $1 per square mile, compared to $10 to $15 per square mile using the more conventional high- and medium-altitude aircraft method. He also reported that as much area can be mapped in 1 day using ERTS–1 for land-use interpretation purposes as can be done in 7 days with high-altitude aircraft, or in 31 days of conventional photo mapping.

Last year, the Iowa Geological Survey did an inventory of two large reservoirs, Red Rock and Ratsbun, using ERTS–1 imagery. Heavy spring rains in 1973 had threatened to overflow these reservoirs. For such emergencies in the past, ground measurements had to be made. Use of the ERTS–1 pictures for this purpose, which will continue to be needed on a seasonal basis, is estimated by the Iowa Geological Survey to save $10,000 to $20,000 a year.

In Alaska a previously unnoticed regional trend was identified on ERTS–1 imagery near the Umiat Oil Field. The alinement of many small lakes in that area—first detected by ERTS—identified a regional feature similar to the domed structures which form oil traps. Trends of faults were extended offshore from the North Slope oil fields indicating promising areas for future petroleum exploration. In addition, six copper porphyry prospects were discovered from ERTS imagery in the mountains of central Alaska, two of which are now being drilled by a private mining company.

Identification of wheat, corn, and soybean crops can readily be accomplished. Accuracies exceeding 90 percent were attained for acreage measurement of major crops in many States and several foreign countries.

During the major flood of the Mississippi River in the spring of 1973, computer recognition and mapping of surface water from ERTS data were used by the Corps of Engineers to evaluate flooded acreage and flood control structures.

In short, ERTS–1 has been a spectacular success by all accounts. In almost 2 years of operation, the potential of such a system for the solution of a multitude of everyday problems here on Earth has been amply demonstrated. According to everything we have heard, more than 300 principal investigators have been uniformly enthusiastic by the data that has poured forth from this extraordinary spacecraft. Whether it is surveying our crops or our oceans, monitoring our environment, conducting global geological surveys, or a myriad of other purposes, ERTS–1 has been enormously successful.

Dr. James Fletcher, the Administrator of NASA, is quoted as having said:

If I had to pick one spacecraft, one space age development, to help save the world, I would pick ERTS and the operational satellites which I believe will be evolved from it later in this decade.

A second ERTS spacecraft was originally scheduled to be launched in November of last year. For financial considerations, the Office of Management and Budget decided to delay the launch of ERTS–B until early 1976. If that new launch schedule had been adhered to, there would almost certainly be a long hiatus in the acquisition of ERTS data, because ERTS–1 could not reasonably be expected to operate over such an extended period.

Our committee increased the authorization for the current fiscal year by $7 million and urged NASA to prepare ERTS–B for launch as soon as practicable. I am pleased to report that the administration has reconsidered the ERTS–B launch schedule, and hastened it by about 1 year.

Now let me turn to communications. Development of experimental communications satellites was one of the earliest efforts within NASA. In 1962 TELSTAR and RELAY confirmed that artificial satellites could provide reliable intercontinental communications, and the same year Congress passed the Communications Satellite Act of 1962.

In 1963, SYNCOM proved that satellites in geosynchronous orbit offered such overwhelming advantages for all types of communications, including voice.

The International Telecommunications Satellite Consortium—INTELSAT—was established in 1964, managed by the successful U.S. COMSAT Corporation, and in the 10 years that followed a global operational network has come into being with more than 80 participating nations and more than 90 ground stations in operation. Four successively more capacious, efficient, and reliable generations of satellites have been developed and launched, and the latest models have a capacity of up to 9,000 two-way voice channels or 12 television channels. Two INTEL SAT IV provide service across the Atlantic Ocean, while a third is stationed over the Pacific, and a fourth over the Indian Ocean.

American businessmen now phone their counterparts in Europe routinely without knowing whether their voices are being carried by submarine cables or satellites. Since the introduction of commercial communications satellites, however, the cost to consumers of a 3-minute telephone call from Washington to London has been reduced from $12 to $5.40 and from Washington to Paris has been reduced from $12 to $6.75. In addition, a number of companies have been licensed by the Federal Communications Commission to operate domestic communications systems aimed at domestic markets for voice communication, data transmission, and television transmission. Capital investments, all privately financed, range from approximately $50 million to $250 million. The first domestic communications satellite was launched for Western Union by NASA just a few days ago—on April 13.

An advance experimental communications satellite, the Applications Technology Satellite–F—ATS–F—will communicate education and health services via TV to millions of people in India and in remote regions of the United States. ATS–F is a precursor to future direct broadcast satellites and is scheduled for launch on May 30 of this year. If these experiments prove successful, subsequent benefits to millions of people in remote areas will be almost immeasurable.

While NASA officials concede that there remains plenty of research and development work left to do on communications satellites, the Agency announced last year that virtually all such work within NASA would be phased out, with the expectation that private enterprise will pick up where NASA leaves off.

Mr. Chairman, many of us thought the decision to withdraw from experimental communications work was mistaken. Dr. Wernher von Braun, now retired from NASA, and working in private industry, had this to say:

I cannot emphasize too strongly how unfortunate I feel it is that budget limitations seem to be forcing NASA to abandon its fifteen-year involvement in the further development of advanced technology for communications satellites. Caught in a budget pinch, even inside NASA the argument has been made occasionally that communications satellites have developed into such an industrial success story that private enterprise should be able to raise enough R & D money to experiment with more advanced but still unproven communications technologies. From my new vantage point in a private corporation which is deeply involved with advanced communications satellites, let me assure you, gentlemen, that this is wishful thinking.

It is noteworthy that the relatively small investment by NASA in communications research and development during the last decade has established the United States as the undisputed leader among the nations of the world in this important new technology. Mr. Chairman, I, for one, would not like to see that leadership challenged, and I am persuaded that the role of the Government in this important work should not be ended.

A third major effort in the application's effort involves meteorological satellites, one of the oldest and most successful of NASA's programs. Improved weather forecasting afforded by NASA-developed meteorological satellites in the Tiros and Nimbus series has already shown major results and potential as an aid to agriculture, to world commerce and to improved public safety and convenience. New technology adding to the potential in this area will be demonstrated soon with the launch of NASA's first meteorological satellite to geosynchronous orbit. The first of two synchronous meteorological satellites is scheduled for launch next month. It will provide continuous viewing of the United States during nighttime as well as daylight hours in order to monitor developments, especially violent storms. This capability distinguishes SMS from the coventional polar-orbiting weather satellites that are able to view a point on the globe only at intermittent periods.

Let me conclude, Mr. Chairman, by urging approval of the NASA authorization bill under consideration today. The many achievements of NASA have advanced the Nation's technology and enriched the lives of our citizens. The space program deserves our continued support.

Mr. GUNTER. Mr. Chairman, we are changing the way that we do business in our national space program. This is coming about because of the development of a low-cost transportation system—the Space Shuttle. In the past, our conventional rockets have required the design of small, highly sophisticated payloads. These payloads, of necessity, were very high in cost and difficult to build. The advent of the Space Shuttle will contribute to eliminating this as a problem. In addition to this, the Space Shuttle provides the opportunity to reuse the spacecraft many times. This will make it much more like a commercial airliner, thus again reducing the cost of space when compared to conventional launch vehicles which are expended on their first use.

The reusable Shuttle will open a new era in space exploration by reducing the cost of space operations. It will reduce the cost of flights for our planned automated spacecraft and also provide many new opportunities for beneficial space exploration.

Design of today's satellites is limited by such things as the size and weight carrying capacity and the launch environment of today's boosters. The service life of satellites is restricted by the relatively short lifetime of some components. Design costs are increased due to the

need for redundant systems so that the entire mission, spacecraft and launch vehicle, are not wasted because of the failure of a key component.

The Shuttle will eliminate much of this complexity and provide a mild launch environment and a large payload bay. Malfunctions can be repaired in orbit and old equipment replaced with new. If necessary, the Shuttle will bring the entire satellite back to Earth for refurbishment and repair.

There have been many studies concerned with reducing the cost of payload programs through utilization of the Space Shuttle for transportation. Specific current satellites were analyzed to determine their design for use with the Shuttle. This resulted in payload program savings of about 30 percent when just minimum modifications were made to adapt to Shuttle flight, to as high as 58 percent when the satellite design was optimized to take full advantage of the Shuttle capabilities. Considerable effort has been expended on low-cost payload design concepts for the Space Shuttle era.

Instead of unique designs for each satellite, a modular design is used with simple geometric packaging. Heavier, low-cost materials and simple manufacturing processes were substituted for lightweight materials and precision machining. The available dimensions of the Shuttle cargo bay—15 feet by 60 feet—allowed a great degree of latitude in the design of booms, antennae and solar arrays. The modularized arrangement of standardized subsystems will facilitate the maintenance of spacecraft in orbit or on the ground.

It will become practical with the Shuttle for scientists to accompany their experiments into space, to conduct scientific research in space, and to evaluate observations. Moreover, they will be able to make all necessary adjustments to insure the success of their experiments, while in space.

To summarize, savings on the order of 40 percent of spacecraft program costs may be expected when the Shuttle becomes operational. Greater savings appear to be only waiting for innovative designers to exploit the full cost reduction capability of the Space Shuttle.

Your support of the bill before you today for authorizing appropriations for the National Aeronautics and Space Administration will be a vote for an economical national space program.

Mr. WINN. Mr. Chairman, I rise in support of H.R. 13998, the NASA authorization bill for fiscal year 1975. I would also like to join in complimenting both the chairman of the full committee, Mr. TEAGUE, and the ranking minority member, Mr. MOSHER, for their leadership in molding this NASA legislation.

Mr. Chairman, I have frequently heard our space program described as undergoing a kind of "benign neglect" and the NASA budget situation certainly supports that kind of conclusion. From the late 1960's in which the annual NASA outlay was approximately $6 billion, the NASA budget has suffered a steady decline to a figure today which is approximately half that of prior years.

The budget request for NASA for fiscal year 1975 in fact is the first budget since 1965 which has not suffered a cutback over the prior year. However, the current proposed request was increased only $100 million over that of fiscal year 1974 which is not even sufficient to cover inflation.

The price we are having to pay from this reduction is all too apparent. The reusable Space Shuttle which receives the single largest share of the budget—$820,000 in the committee bill—will now be pushed back in its timetable for use to the second quarter of 1979. Specifically, the cut that was imposed on the program by the administration results in a 6-month delay. What this means is that major thrusts in such fields as communications, earth resources, and meteorology will be correspondingly delayed because of their dependency upon the Space Shuttle.

The space program in fact suffers a critical problem with respect to the entire manned space flight effort. With the last Skylab flight which ended in February, the only manned flight left between now and the Space Shuttle in the late 1970's is the joint United States-Soviet docking flight, scheduled for July 1975. Thus, manned space flight will literally be dropped as a major activity for the next half dozen years.

Certainly, however, there are a number of very positive signs in this year's budget. Two programs in particular—the SEASAT and the heat capacity mapping mission—reflect NASA's determination to direct more of its resources to providing an immediate return on our investment in space. The SEASAT, which will be placed in Earth orbit in 1978, is to provide a comprehensive study of our ocean systems. This effort is aimed at developing a forecasting system which would be of great economic value to the shipping and fishing industries.

The other new applications start, the heat capacity mapping mission, is designed to make thermal measurements of the Earth's surface. This satellite will complement the Earth resources technology program by being able to determine locations of mineral resources and rock structures. The same information can even be used in such major civil works projects as highways and canals.

I would also like to address an additional initiative which I feel to be one of the most important in next year's NASA program. This is an effort which I personally suggested and which subsequently won the unanimous support of the committee. The amendment I proposed directs NASA to accelerate its effort in the meteorological area by earmarking $2 million of its space applications funding for research on tornadoes and other short-term weather phenomena. It is my hope that such a program will serve as the necessary catalyst in promoting a more effective and more solidly funded national effort in meteorology.

The timeliness of such action is certainly most obvious after the tornado catastrophes of earlier this month. The latest reports are that more than 320 are dead throughout the tornado-struck 11 State area. In addition, property damage is estimated to be in excess of one-half billion dollars.

What should be recognized however is that the annual number of such weather disasters, the amount of property damage, and most important, the number of lives lost, have continued to grow over the last 20 years. In fact, the yearly average of tornadoes alone has grown from approximately 650 in 1959 to over 1,000 last year. Although the new NASA program will study all types of short-term weather phenomena, I mention tornadoes in particular since over the last 10 years there have been approximately 10 times more tornadoes than hurricanes and tropical cyclones combined—with nearly twice the number of people killed by tornadoes in the course of the average year.

The authorization bill therefore recommends that NASA initiate a major research program in short-term weather phenomena with the primary purpose being to encourage the application of more advanced techniques and technology to a problem which is largely defying conventional approaches. I am sure that NASA would welcome the opportunity to become more involved in this crucial area, and the committee understands from other agencies now working in the field that they too would look forward to the addition of NASA resources and expertise. The project would be under the direction of a NASA director but would be carried out in close coordination with NOAA the Federal Government's lead Agency in the field of meteorology.

One further point that I would emphasize is that the committee added no further funding to the proposed space applications budget; rather, it is intended that the $2 million for weather research be made available from the money which was authorized but not obligated last year in conjunction with replacing the Convair 990 research aircraft. For fiscal year 1974, $5 million was authorized to procure a replacement aircraft but NASA needed only $3 million. Thus, the committee proposes that the $2 million NASA saved be applied to this new research effort in short-term weather phenomena.

I personally feel that this money which the committee has proposed—$2 million—will be returned to the public many times over. It was with a great deal of satisfaction that I witnessed the committee approve my proposal and I look forward to a similarly positive response from my colleagues here on the floor.

Mr. Chairman, in summary, this year's NASA authorization bill, as it increases the administration's request by only $6 million, provides for both a positive and well-balanced space program. Although

there were a number of cuts in the budget which impact adversely on such vital programs as the Space Shuttle, NASA has done an outstanding job in developing a program which will permit this Nation to maintain its preeminence in space. I, therefore, commend H.R. 13998 to my colleagues and urge that they join with me in providing this legislation their fullest support.

Mr. GOLDWATER. Mr. Chairman, I rise in support of H.R. 13998, the NASA authorization bill for fiscal year 1975.

This authorization represents a responsible continuation of NASA's research into areas vital to our national well being. NASA has the arsenal of talent and resources necessary to provide the leadership for maintaining our preeminence in space and in aviation.

In particular I am concerned with the aeronautical research and technology program. This program concentrates on improving the safety, efficiency, and acceptability of civil aviation. NASA has demonstrated that with support and determination it could meet mankind's oldest dream—to have man walk on the Moon. This same perseverance is now being applied to meeting mankind's current demand—less congested airports, safer planes and quieter engines.

Aircraft noise is a more pervasive problem than many others because it affects passenger and nonpassenger alike. People living near airport flight approaches often do not need to read of this problem—they are audibly reminded of it many times each day. Since the growth of air travel is certain to accompany our increased national mobility, noise levels must be checked while the problem is still manageable.

NASA is coping with excessive noise by investigating a variety of short-term and long-term solutions. A promising short-term technique is the use of a two-segment approach for aircraft landings. Over 40,000 passengers were carried in 555 two-segment Boeing 727 approaches by 38 flight crews in fiscal year 1974. This technique resulted in a significant reduction of the approach noise footprint. Additional studies are in progress on the same technique applied to DC–9, DC–10, B–707, B–737, and B–747 aircraft. An added bonus of the technique is that it produces a fuel saving of about 10 gallons per landing. General use of this technique by commercial airlines could yield an annual fuel savings of 50 million gallons.

Other solutions under investigation include modifying the engines of 727, 737, and DC–9 aircraft by refan retrofitting. These aircraft account for 70 percent of domestic commercial fleet operations and refan retrofitting could reduce their noise factor by 75 percent. Further study is needed before this technique will be ready for implementation.

NASA also is engaged in investigations aimed at providing the technology base for a better understanding of the sources of engine noise. Such a fundamental understanding will lay the ground work for designing new engines with good noise profiles.

Our concern with noise pollution is matched by our concern with exhaust emission pollution. Research is under way to meet future environmental quality standards with minimum adverse effects on engine performance, weight, and system complexity. Recent emphasis has been given to reducing the levels of nitric oxide emitted. NASA has determined that injecting small amounts of hydrogen into internal combustion engines yields stable, highly efficient performance with reduced fuel consumption and low nitric oxide emission levels.

Improving aircraft safety has as many facets as there are causes which result in aircraft accidents. In fiscal year 1975 an evaluation will be conducted of the toxicity of gas emitted by burning aircraft interior materials. The objective will be to identify potentially dangerous materials and replace them with fire-retardant, nontoxic materials. In the area of airframes, steel, titanium, aluminum alloys, and composite materials will be tested with regard to fatigue, fracture, and lifetime. The testing will seek ways to reduce these detrimental effects and to establish better testing procedures to identify their presence.

Airport congestion not only results in passenger impatience but is a contributing factor in many airport accidents. Work is in progress to improve this situation by means of a precision automatic, zero visibility landing capability; primary displays and an independent landing monitoring system. Improved arrival accuracy will lead to closer longitudinal spacing, better flight path control, and reduced runway occupancy time.

Closely related to resolving the airport congestion problem is the overall upgrading of the available avionics. Avionics includes guidance, control, and navigation systems essential for safe and efficient flights. NASA is contributing to the design of new systems which incorporate integrated circuits for reduced cost and increased reliability. Improved avionics will provide the pilot with better flight information and reduce or eliminate the errors arising from unaided human judgment. The technology which enabled Americans to fly to the Moon without a midcourse correction must be adapted to provide reasonably priced, accurate avionics for Americans flying from Scranton to Baton Rouge.

Expanding our basic knowledge of atmospheric processes will aid the safe and efficient operation of aircraft. Research will continue in fiscal year 1975 on understanding storm airflow turbulence, clear air turbulence, fog formation and similar atmospheric hazards. Wake vortex flight research involves the development of aerodynamic methods aimed at reducing the landing and takeoff separation distances imposed by wake vortices generated by large jets on trailing aircraft. The goal is to cut the separation from 3 to 5 miles to 2 miles without decreasing aircraft performance. In fiscal year 1975 NASA will select among the candidate vortex minimization devices developed in past years and test the most promising devices in flight.

Mr. Chairman, I have focused my comments on NASA's contributions toward improving our Nation's aviation posture but the distribution of my time should not be read as indicating a disinterest in the remainder of NASA's overall mission. I believe NASA's continuing space role will produce achievements significant in their own right and set the stage for adaptations closer to home.

Mr. Chairman, I am pleased to lend my support to this bill and I urge my colleagues to join with me in voting for continuing America's leadership in the skies and in the heavens.

Mr. BELL. Mr. Chairman, I would like to urge my colleagues to join me today in supporting H.R. 12689, the bill to authorize appropriations to the National Aeronautics and Space Administration.

We must continue our work in the space program for its benefits to mankind are only beginning to be fully realized. We have invested too much money and manpower in this program to impair it any further. We in the Congress must have the foresight to continue our efforts in this regard.

I would like to address my remarks to some of the highlights of the space and aeronautics program during the recent years. In February of this year, the flight phase of the Skylab program was finalized with the successful splashdown of Skylab 4. These scientific laboratories have demonstrated the routine use of space for the benefit of mankind. The technology of this space program has increased our knowledge about the resources of the Earth. Skylab gathered information on the Earth's resources and environment to help with such problems as air and water pollution, flooding, crop deterioration, and erosion.

International cooperation has also been enhanced by the Spacelab program and the Apollo-Soyuz test project. These programs have demonstrated the concern shown by other nations of the world regarding our space program and our advanced technology in this field, and I believe it would be very unwise for the United States to retard our efforts in these areas at this time.

The Space Shuttle, expected to fly in 1979, will provide benefits of immediate value to Earth. The Shuttle is a reusable space transportation system that will greatly reduce the high cost of space flights. The Shuttle will also provide great assistance in the areas of energy and environmental protection.

In the area of aeronautics, NASA has given considerable attention to the problems of aircraft noise and pollution. To reduce aircraft noise, engines have been modified and sound deadening materials have been installed. Work has also been done to clean combustors to reduce the environmental impact of jet engine emissions. Studies relating to aircraft safety have also been made relative to the role

of human error in aircraft accidents and runway visibility.

The technological benefits we are deriving from the space program are many. I would like to mention several, particularly those in the area of medical technology.

A battery developed for space use has enabled the development of a rechargeable pacemaker for heart disease patients. This new pacemaker eliminates the need for the repeated costly—in terms of both monetary loss and human suffering—surgery necessary for battery replacement. Some examples of successful transfer and diffusion of advanced aerospace technology into the area of rehabilitative medicine are: Orthotic manipulator arms that resemble the human arm in construction and operation and that restore arm function to paralyzed patients; a paper money identifier that enables a blind person to identify different paper bill denominations; an audible light meter which enables a blind person to detect whether it is day or night; and a portable cardiac emergency and resuscitation unit that was adapted from Skylab medical instrumentation that is now being used by emergency and rescue units.

Mr. Chairman, again I strongly remind my fellow Representatives that the space program deserves our continued support and encouragement through the passage of this measure. We have already learned much and benefited greatly from the program, and the future promises much more.

Mr. FLOWERS. Mr. Chairman, one of the important aspects of our national space program which is often overlooked is the program of international cooperation which has been successfully conducted by NASA since 1958. Over 87 nations participate in various joint scientific and technological programs with NASA. In each case, their portion of the costs are paid by the governments involved while we pay our own costs associated with such programs. A prime example of such commitments in this international effort is the development of the Spacelab by the European community which is currently underway. The Spacelab, which will be used with the Space Shuttle, is an investment by the European community of $400 million. This represents a substantial commitment to one of the most important payloads to be carried by the Shuttle program.

Another less tangible but very real plus of the Spacelab program which we should keep in mind is its international characteristics. It is being undertaken as a truly joint project between the United States and Europe to our mutual benefit. One aspect of this effort, which should not be overlooked, is monetary. The European community has undertaken the entire development of the Spacelab as well as the funding of the development. The cost of that development is approaching one-half billion dollars. Their efforts will result in the delivery to us of a flight article Spacelab and its ground supporting equipment. The arrangement is mutually beneficial in that we will buy all of our subsequent hardware needs from them. Of far greater significance, however, is the healthy growth of European involvement in our space efforts. Besides the hardware aspects, they are now full partners in the utilization of space. Through formalized arrangements they are helping to establish the requirements against which the Spacelab is being designed. They will have flight experiments as their needs and merits dictate. One of the flight crew of the initial Spacelab mission will be European and subsequent crew participation is anitiicipated. All of this is beneficial to the space program but reflects equally well into international relationships with our European neighbors. I see the above as two very valid reasons why the Shuttle and Spacelab should have congressional support and I urge that we respond favorably in our voting.

I would like to say a word in support of the Space Shuttle and its related Spacelab by drawing a somewhat obvious analogy to the recently completed Skylab effort. The success of the Skylab program is well known and the rather dramatic repair efforts which began the flights forever proved the benefits of having man in orbit with the equipment. He not only was able to take corrective action which in this case transformed almost certan failure into unbelievable success, but in performing observations, he could adjust to changing circumstances and react to events of opportunity. The results are now beginning to be published.

We are getting glimpses of a potential for new products possessing unusual characteristics as a result of having been produced in a gravity free environment. The sun has now been examined as never before, shedding new knowledge on this vital life-giving process. The benefits of Earth study from orbit are becoming better known and defined. The benefits of Skylab, however, were limited by the launch mode. Now the Shuttle, with the Spacelab providing the work environment in which man can continue what the Skylab has barely suggested is possible, is coming into being. It is a very interesting age that we are entering and the Shuttle with the Spacelab is a significant part of it, well worthy of our support.

In adition to the Spacelab effort, on July 15, 1975, the last Apollo vehicle will be launched as part of the United States-Soviet Apollo/Soyuz test project.

It is gratifying to see the real progress which has been made toward the international rendezvous and docking mission which joins the efforts of the United States and the Soviet Union in a cooperative effort towards our goal of developing compatible rendezvous procedures and docking systems and conducting a joint flight mission test of these procedures and systems. This will provide a basis for future joint manned activities in space and possible space rescue activities.

It is rewarding to see the results that friendly cooperation between these two great nations has already accomplished in the past year which has seen the successful testing of the independently designed universal docking systems of each country in actual dynamic development docking system tests, and successful docking system seal tests. Mutual agreement has been reached on virtually all aspects of joint flight and mission planning. It can be said that this undertaking has already made a significant contribution to the cause of peace and better understanding between our two countries.

The Apollo/Soyuz test project payload of experiments has provided the scientific community with a rare opportunity to carry on manned research and space application activities in space. Among the group of experiments to be flown is a West German electrophoresis experiment. The electrophoresis process will be used to separate cells from liquid biological media by means of an electric field. In free-flow electrophoresis which will be conducted in this experiment, the sample flows continuously through the electric field. This scientific tool may become important to human medicine. Patients suffering from bone marrow disease could be treated by ablation of the diseased bone marrow with marrow of a healthy donor.

However, transplantation rejection usually results. The principal investigator proposes that this disease could be avoided by separating the bone marrow components that protect the patient from the immuno-reactive component which attacks the patient. Laboratory tests have demonstrated the capability of free-flow electrophoresis in this type of separation. At present the efficiency of free-flow electrophoresis is severely limited by several problems which do not exist in zero gravity. It is hoped that this experiment will demonstrate an efficient method for carrying out the cell separation process.

Another existing experiment involves soft X-ray which will provide an opportunity to confirm rocket observations of celestial soft X-ray emission in a region of the electromagnetic spectrum where very little data exists. With the data expected to be gathered on the Apollo/Soyuz test project flight an understanding of these energy sources may be possible which could lead to new methods of energy generation much as the understanding of the emission processes in the sun contributed to the development of nuclear energy.

Another valuable experiment with exciting potential involves earth observations and photography. Visual studies of specific problems to be solved will be complemented with photography of the specific area under observation. Included are definition of unmapped extensions of the San Andreas fault and related fracture systems in California for structural geology and earthquake studies; evaluation of snow cover and drainage patterns of the Himalayas in India for irrigation and flood control uses and evaluation of the growth of river deltas for land use

studies and future gas and oil resources survey.

Although the international aspects of the National Aeronautics and Space Administration program is only one of many important aspects of their effort, it is a significant contribution not only to scientific and technological progress, but to world understanding. I urge your support of H.R. 13998.

Mr. YOUNG of Alaska. Mr. Chairman, as Congress deliberates over the NASA authorization legislation, I would like to point out the importance of one feature of the program to Alaska—the ATS–F experimental satellite.

The ATS–F satellites is the extension of the ATS–1 satellite that has provided Alaska with invaluable information on the potential of satellite communication for educational and health programs in the bush areas.

Few of Alaska's remote villages have doctors. Some are only now beginning to get paramedics. The use of satellite communications in conjunction with a health-aid training program has helped thousands of villagers receive medical treatment under the direction of doctors and other specialists located in the urban centers of Alaska.

In the classroom, NASA's bird has made instant reference material from the city libraries available to students and teachers alike hundreds of miles away. Only a few months ago I had the pleasure and opportunity to talk with village schoolteachers in half a dozen Alaskan villages using the presently orbiting satellite—the ATS–1, and transmission facilities at the nearby National Institute of Health. Representatives from the United Nations and the National Education Association who went to Alaska to investigate the potential for satellite use in Alaska concluded that—

Statellite communications for Alaska, as part of an overall long-range educational communications system, are not only feasible but necessary for improved communications in the State. In many respects the satellite was "invented" for Alaska.

The recent demonstration of a low-cost portable ground station by Stanford University has made the widespread use of telecommunications more feasible for the Alaska villages. The 10-foot antenna and the two-foot cube of electronics powered by battery bring the possibility of two-way video, and voice transmission close to realization.

In Alaska, the continuation of the ATS-satellite and its experimental programs in education, health, and cultural exchanges is vital for the development of the human resources of my State.

Mr. COTTER. Mr. Chairman, today I am happy to express my support for the NASA authorization request by joining the distinguished gentleman from West Virginia (Mr. HECHLER) chairman of the Subcommittee on Aeronautics and Space Technology.

During the past 3 years a major concern of the committee on aeronautical research and development has been aircraft noise abatement. We have urged and supported more extensive efforts on the part of NASA in attacking the problem of aircraft noise, both in the short term and the long term. In addition to our regular annual authorization hearings, we have held special oversight hearings on aeronautical research and development and specific oversight hearings on aircraft noise.

Recently, we held 3 days of oversight hearings in December 1973 on aircraft noise. One major result of those oversight hearings was that the Environmental Protection Agency established an Aviation Noise Control Requirements Study Group. The purpose of this group is to identify everything necessary that should be done to get on with the task of reducing aircraft noise more rapidly.

Beginning in fiscal year 1973 our committee urged an expedited effort in a major noise reduction program: The refan technology program. The purpose of this program was to provide a basis for industry to proceed with modification of the existing, narrow-body jets of the commercial air fleet. This program included work toward modification of the 707, the DC–8, the 727, the DC–9, and the 737.

Subsequently, Office of Management and Budget dictated budget reductions led to a termination of the work for the 707 and the DC–8. I believe this was a mistake because these four-engine aircraft are among the major noise offenders. Last year, we attempted to have this program reinstated, but we were not successful.

The fiscal year 1975 budget contains the last increment of funding—$1 million—of a $44 million program for the refan modification technology. However, the results can only be applied to the 727, DC–9, and the 737. One of the major subjects discussed during the committee's December 1973 oversight hearings on aircraft noise was the possibility that the FAA would proceed with a rulemaking procedure which would for all practical purposes, eliminate potential use of the NASA developed technology. This remains a major concern of the committee and on behalf of the Congress we intend to follow this program carefully to help preclude the money Congress authorized from being wasted.

Aircraft noise remains a major problem in aviation. We must continue to pursue solutions vigorously. Airplanes must become acceptable neighbors and at the same time we, as a nation, must retain our world leadership in aviation.

Mr. REGULA. Mr. Chairman, I rise in support of H.R. 13998 the NASA authorization bill. I note that the committee has stated that it opposes NASA's plans to place the Plum Brook Station in Ohio—the world's largest space environmental simulation station—in a standby stage at the end of fiscal year 1974.

It and the scientists, engineers, and other highly qualified trained staff are among the natural assets I spoke about on December 19 in this House when I urged support of the Energy Reorganization Act and read into the RECORD a letter from the Honorable Roy Ash, Director of Office of Management and Budget. I reiterate, there is a reservoir of talent and energy in NASA. Over the last 2 or 3 years, NASA's dwindling budget has resulted in a release of numerous well trained staff and a cutback in facilities. I think it is important that these facilities and personnel be utilized to the fullest extent in our national effort to overcome the energy shortfall we have been experiencing.

Director Ash informed me in December that immediately upon the establishment of a national Energy Research and Development Administration, OMB would urge the ERDA administrator to undertake, on a priority basis, and in consultation with the NASA administrator a thorough review of all of NASA's personnel and facilities that might otherwise be released or closed down. He further stated that such a review should be made in the context of meeting ERDA's scientific and technological requirements.

I think it would be tragic to close down the Plum Brook Station at this time. I congratulate the committee on its stand and I urge my colleagues support of the committee's position, and its avowed intention to hold oversight hearings this year to ensure that a minimal operating force is maintained at Plum Brook.

Mr. BROWN of California. Mr. Chairman, I support this legislation and the continuation of the efforts of NASA to serve the needs of this Nation in many fiields. The expertise of the National Aeronautics and Space Administration is not being fully tapped by the Congress in many areas of vital national concern. One area of concern that has come to the attention of the media of the Nation is research being done by NASA in the area of alternative fuel and engine R. & D. An area that has received particular attention has been the NASA work with hydrogen fuel. In a time of uncertainties in petroleum supplies, and the continuing need to develop nonpolluting engines; the potential of an alternative fuel captures the public imagination. NASA is working on this problem, and this bill includes authorization for them to continue this important work at a minimum level. I have pending in the Science and Astronautics Committee a bill which would expand the involvement of NASA in the research and development of ground propulsion systems.

NASA is not the only organization that is interested in the potential of hydrogen fuel. A group of enterprising researchers in Utah, under the able leadership of Roger Billings, has working vehicles that run on hydrogen fuel. There is much work to be done, but if a small group can make progress in this field, as this group has done, then there is hope for real breakthroughs in this field.

Mr. Chairman, I would like to insert for the RECORD an article from Automotive News on the Billings research in Utah, as one of many examples of alternatives to the present gas-guzzling automobiles.

The article follows:

TWO FUEL STORAGE SYSTEMS DEBUT ON HYDROGEN CAR

PROVO, UTAH.—Hydrogen, as an automotive fuel, has a lot going for it.

Its exhaust is clean—it emits "fog, instead of smog," as one advocate put it.

And it is plentiful. The oceans are full of it.

One disadvantage, however, is that there are a number of developmental hurdles which must be overcome before hydrogen-powered cars can be produced, including needed improvements in storage containers and developments of hydrogen production and distribution systems.

Roger Billings, president of Billings Energy Research Corp. here, thinks the potential is there, however, and he recently showed a Monte Carlo to an energy symposium in Santa Barbara, Calif., which had a modified fuel system to allow it to run on hydrogen.

The car uses a conventional engine to which Billings' company added a modified carburetion system and a specially packaged hydrogen fuel supply. This modified fuel system was called a "significant milestone" by Billings.

Although young (26 years old), Billings has already made an impression on Detroit with a hydrogen-powered Volkswagen which won first-place honors in the Urban Vehicle Design Competition at the General Motors Proving Grounds in 1972.

The hydrogen fuel system he developed for the VW achieved the lowest emissions in the field of 63 vehicles and surpassed all 1976 standards.

Billings' experimental Monte Carlo actually has two types of hydrogen systems, which operate independently.

One is a sophisticated powdered metal hydride system in which the hydrogen is stored in iron titanium in a special tank in the normal gasoline tank area.

The other is a thermos-like tank containing supercold (minus 423 degrees Fahrenheit) liquid hydrogen, which is fed into the engine through a specially designed carburetion system.

The metal hydride storage system was designed by Billings Energy Research Corp. and is based on the hydrogen absorption capability of iron-titanium alloys discovered in the late '60s at Brookhaven National Laboratory.

The alloy is contained in a bundle of tubes which resemble a steam boiler. The hydrogen is held inside the metal powder by chemical bonds which are broken by heat from the engine's cooling fluid.

Billings said no production cost estimates are yet available, but he said the metals are not expensive.

The cryogenic hydrogen tank was designed by Beech Aircraft Corp., Boulder, Colo., an aerospace firm which developed oxygen and hydrogen cryogenic systems for the Apollo and Skylab space programs.

The two systems give the Monte Carlo a range of 145 miles, Billings said, but he said the prototype storage tanks are small and could easily be enlarged.

Billings said that even at present production costs, hydrogen is not unreasonably expensive.

"We are now buying liquid hydrogen at an operating cost of 2.5 cents per mile, vs. a cost of 3.5 cents per mile for gasoline at 50 cents per gallon, figured at 14 miles per gallon of gas," he said.

Billings said some projections on the cost of producing hydrogen from coal gasification indicate a possible two-thirds reduction—to eight cents per pound or less.

Asked about safety, Billings noted the "Hindenburg syndrome" and the subconscious word association between "hydrogen" and "bomb." But, he said, "if a crash were severe enough to break the tough little fuel box open, the fuel would escape so slowly that the possibility of fire casualties would be remote."

Frank Lynch, vice-president and director of engineering for the Billings firm, said that several vehicles have been built to demonstrate use of hydrogen for fuel, but that—until the Billings model—most had used gas which means bulky fuel storage systems and short ranges.

"The problem is that no matter how highly hydrogen is compressed at normal temperatures, it remain a gas with very little energy per cubic foot," Lynch said.

"This means that a tank large enough to propel the family sedan for 100 miles might weigh over half a ton and would usurp all of the trunk and most of the back seat.

"By switching to supercold liquid hydrogen and by developing a practical powdered-metal hydride storage system, we believe we have achieved a major breakthrough in the use of hydrogen for automotive energy."

Lynch said hydrogen is also feasible for a wide range of fuel uses, "from lawn mowers to locomotives." Because of its high energy output per pound, Lynch said hydrogen systems might result in a 30 percent weight reduction in aircraft.

Billings estimated that a 40 percent increase in engine efficiency can be realized with hydrogen. This, coupled with a lower production cost per million BTUs ($1.83 for gasoline, $1.60 for hydrogen made from coal, he said) makes the cost per mile of hydrogen fuel well below gasoline, Billings said.

"Another asset in the production of hydrogen from coal is that the vast deposits of sulfur-bearing coal make a suitable feed stock," he said. "The sulfur is removed without producing sulfur dioxide, so the process is virtually pollution-free."

Discussing the metal hydride storage system, Billings said that under proper conditions, certain iron-titanium alloys will absorb hydrogen by chemical reaction and contain it in a very dense state. When conditions are reversed, the hydrogen is released.

"The metal hydride method of storage allows a larger quantity of hydrogen to be held in a smaller volume than previously possible," he said.

"Metal hydrides also appear to be much safer than other hydrogen fuel storage methods. The hydrides under development at Billings Energy Research Corp. do not ignite and are relatively stable in air and water.

"In case of a serious collision, they would be safer than a conventional gasoline tank."

Billings said there are a number of problems in converting a conventional engine to run on hydrogen.

"The conventional engine powered by hydrogen has a tendency to backfire to such an extent that engine operation is rendered virtually impossible," he said. "If the engine does run, unless carefully controlled, it may produce as much as five times more nitric oxide than gasoline engines."

But Billings said his engineers have developed simple and inexpensive methods of controlling these problems.

In addition, he said, they have successfully converted a Wankel engine and a two-cycle engine, as well as standard auto engines.

"They are presently studying the conversion of diesels, which may prove to be the most efficient of all."

Billings said the power from a hydrogen-fueled engine is roughly equal to a gasoline unit. The exhaust of engines converted by Billings' firm, he said, contain no carbon monoxide, no hydrocarbons and about 0.2 grams per mile of nitric oxides, half the most stringent proposed standard.

Mr. MILFORD. Mr. Chairman, I rise in support of H.R. 13998, the NASA authorization bill for fiscal year 1975.

Among the sciences that have been advanced most by the space age, meteorology is one of the greatest beneficiaries. Meteorological satellites have a long and successful history. TIROS–1 was launched 14 years ago, in April 1960. The TIROS series of satellites evolved quickly into a national operational meteorological satellite system that has enhanced the effectiveness of NOAA's weather forecasting. The first operational satellite was launched for ESSA in 1966.

The earth orbiting satellite has proven to be an invaluable tool and one of the foremost direct applications of space technology to weather forecasting.

Meteorologists find it necessary to examine as an entity the weather and the particular quantities charter on the maps. Satellites provide such a field representation directly. Measurements made from the surface of the Earth must be laboriously interpolated between the discrete "point" measurements made at the stations.

Satellites view the atmosphere as a global phenomenon. That is, every area on Earth can be viewed regularly. Further, for near-Earth orbits the orbital period is a matter of hours, and through the choice of the orbit, every place on Earth can be viewed two or more times per day. Thus, satellites provide data where no surface weather stations exist or where they cannot be practically installed.

Satellite observations permit fast collection, and then readout of the data at a central ground station. One satellite in a near-polar orbit can view every point on Earth in 12 hours.

From their vantage point high in space, on an everyday, round-the-clock basis, weather satellite instruments are producing cloud pictures showing global weather front patterns, surface and cloud-top temperatures, wind directions and speeds, and measurements of atmospheric temperature and humidity; information formerly either completely unavailable or available only on a very limited basis.

Weather satellites have detected and tracked every tropical storm over the past several years, allowing time for threatened areas to receive warnings well in advance of the impact of a storm. Official estimates indicate that many thousands of lives and many millions of dollars of property have been saved as a result of satellite information about such storms.

The ability of satellites to provide comprehensive information about our atmosphere is helping to make weather forecasts more accurate now, but new sensors under development promise data which will enable scientists soon to make reliable, accurate weather predictions perhaps as much as 2 weeks in advance.

Mr. Chairman, I note with gratification that NASA's technological know-how is now going to be applied to the world's oceans. I am sure those in the oceanographic community, as well as

those in the maritime meteorological communities, are equally gratified. The focus of this attention is NASA's first "sea satellite," to be known as Seasat-A, scheduled for lunch in 1978.

The sea profoundly affects the weather. In turn, it is affected by the atmosphere, acting as a heat reservoir and the biggest source of atmospheric moisture. It is the repository for the debris of man and nature, and serves as a source of petroleum and some useful minerals. It is a source of food and a means of recreation. It is, of course, a great global highway for commerce. The sea is many things, and it covers 75 percent of the planet Earth.

Because of its great expanse and its harsh environment, the sea presents difficulties in obtaining detailed and timely information about itself. For effective monitoring and forecasting, we need to know much more about wave heights, the location of major ocean currents, winds and pressure, and other parameters. Surface data taken from Seasat can be combined with the subsurface data taken by other, more conventional means. Together these data give a fairly good three-dimensional view of the ocean. Seasat will have the capability to observe the ocean on a day-and-night, near-all-weather basis. It will use a complement of active radar and passive microwave and infrared instruments.

The benefits that are predicted for SEASAT are impressive. One of this year's witnesses on the NASA fiscal year 1975 authorization bill, H.R. 13998, was Dr. John R. Apel, of the National Oceanic and Atmospheric Administration—NOAA—Department of Commerce. He testified:

> In principle, large economies are possible for activities using SEASAT-A-derived information directly or indirectly. In the area of maritime operations, minimum-time routing of transoceanic shipping around storms and adverse currents can save 12 to 24 hours of ship time on a single crossing which, when translated into savings at the rate of $10,000 a ship-day, amounts to eight figure numbers of dollars per year, world-wide.

He went on to list other benefits in terms of reduced cargo breakage and insurance rates, and improved harbor and canal scheduling. Wave forecasts would also help in scheduling the deployment of floating oil drilling platforms. Seasat also is expected to contribute to the national defense and to protection of life and property. Dr. Apel pointed out that the use of marine resources, living and nonliving, is also enhanced by knowledge of ocean currents, temperatures, and waves.

Mr. Chairman, the list of active users of Seasat data is large. It includes eight departments and agencies, several institutional users, plus the American Institute of Merchant Shipping, American Petroleum Institute, and the Sea Use Council. Surely, the modest authorization of $8 million for starting the Seasat program is a most worthwhile investment.

Mr. RANGEL. Mr. Chairman, on the agenda today we shall vote on the appropriation of funds to the National Aeronautics and Space Administration. No one will dispute that NASA's exemplary efforts in space research and operations have given the United States preeminence in space. It is also true, however, that NASA has the most dismal record of all Government agencies in minority hiring. Only 5.2 percent of its ranks are minority members compared to an overall average of 20 percent for the Federal Government as a whole.

NASA brought national attention to its inequitable hiring practices when it fired Mrs. Ruth Bates Harris, then Deputy Assistant Administrator for Equal Employment Opportunity. The official reason for her dismissal was because of a difference of opinion on NASA's equal opportunity priorities and opportunities. The truth of the matter is that NASA had no concrete policy and was attempting to "cover up." There have been various testimonies before the House Judiciary Committee relating to the fact that not only were minority hiring practices insignificant but that treatment of minority workers within NASA itself were stifling and blatantly discriminatory.

This Agency which firmly entrenched America in the space age continues to utilize neanderthal discriminatory policies against blacks, women, and other minorities. In concurrence with this backward stance, NASA's Equal Employment Opportunity Office is headed by a NASA trained physicist alleged to have management skills. I would like to know what relevance do his qualifications have for enacting a vigorous and effective minority employment program? Would NASA, an Agency which prides itself on professionalism, appoint someone trained in sociology for one of its science programs? I do not believe minority groups can afford to have a trainee in such a sensitive position.

If the majority of other Government agencies and departments can successfully reflect the national proportions of minorities, why can't NASA do the same? An Agency which is renowned for its can-doism, its ability to project man and machine into the inner recesses of space and successfully bring them back, should be able to meet an adequate minority employment level. Just as a rocket must build and reach an adequate escape velocity so must NASA's employment policy actively recruit minority members so that their numbers will be, in the future, self-perpetuating.

Mr. McCORMACK. Mr. Chairman, I rise in support of H.R. 13998 authorizing funds for the National Aeronautics and Space Administration. For 8 of the past 10 years, NASA's budget has declined. Only in the last year and in the bill before you today has that budget leveled off. As the distinguished chairman of this committee, the gentleman from Texas (Mr. TEAGUE) has pointed out, the increase in the NASA bill by the committee this year is one-fifth of 1 percent above the total budget request for this year or slightly more than $6 million.

It is my privilege to be chairman of the Subcommittee on Energy of the Committee on Science and Astronautics and I can say that NASA has the resources and the opportunity to contribute not only directly to the field of space exploration and utilization but also to the solution of our energy problems. The bill before you today recommends funds for research and development, construction of facilities, and research and program management tailored to a limited but vigorous space effort. The recent successes of Skylab and automated probes to Mercury are only a small indication of the significant contributions of NASA. The Earth resources technology satellite, weather and communication satellites all are improving the quality of life for the people of this country and of the world. These efforts are worthy of our continuing support.

Coming soon, in July of next year, the Apollo/Soyuz rendezvous and docking will take place. This joint United States-Soviet project is an important first in manned space flight. In 1976, the Viking program will land instruments on Mars for the purpose of determining if life exists or has existed there. In 1979, the Space Shuttle will herald a new day in low-cost space transportation and open space as an arena of routine operation. This bill supports these projects and merits our approval.

I urge support of my colleagues on the passage of H.R. 13998.

Mr. MATSUNAGA. Mr. Chairman, I am pleased to rise in support of H.R. 13998, which would provide for the needed authorization for important programs furthering man's quest for knowledge in his surroundings and the universe.

Mr. Chairman, I am especially elated in the wisdom and foresight characterizing this bill, which we have grown to expect from the distinguished chairman of the Science and Astronautics Committee, my good friend, the gentleman from Texas (Mr. TEAGUE), and his able committee. And there is nothing more exemplary of their respected achievements than the committee's decision to fund fully the much sought after infrared telescope project on the summit of Mauna Kea in my State of Hawaii.

In funding this project, the Science Committee has concurred with selection by NASA of this ideal site, described by world-ronowned astronomers as one of the finest, unobstructed locations for cosmic observations in the world. Indeed, as the distinguished members of the committee are no doubt aware, the Mauna Kea site is also the choice of an international cooperative effort to construct the second largest optical telescope in the world. By approving today's measure, the House will be taking the first major step toward constructing the world's largest infrared telescope to extend substantially America's capacity to study the cosmic phenomena now beyond the grasp of modern science. More tangibly, with the construction of the NASA Mauna Kea infrared telescope, scheduled for completion by 1976, NASA's capacity to support the planned 1977 Jupiter-Saturn space mission with the most effective facilities available to our scientists will be enormously improved.

Mr. Chairman, I urge overwhelming approval of H.R. 13998.

Mr. TEAGUE. Mr. Chairman, I have no further request for time.

The CHAIRMAN. The Clerk will read.

The Clerk read 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:

(a) For "Research and development," for the following programs:

(1) Space Shuttle, $820,000,000;

(2) Space flight operations, $308,300,000;

(3) Advanced missions, $1,500,000;

(4) Physics and astronomy, $140,515,000;

(5) Lunar and planetary exploration, $266,000,000;

(6) Launch vehicle procurement, $140,500,000;

(7) Space applications, $177,500,000; of which $2,000,000 is designated for research on Short-Term Weather Phenomena; and $1,000,000 is designated for research on ground propulsion systems;

(8) Aeronautical research and technology, $170,655,000;

(9) Space and nuclear research and technology, $76,600,000;

(10) Tracking and data acquisition, $250,000,000;

(11) Technology utilization, $5,500,000;

(b) For "Construction of facilities," including land acquisition, as follows:

(1) Addition to flight and guidance simulation laboratory, Ames Research Center, $3,660,000;

(2) Rehabilitation and modification of science and applications laboratories, Goddard Space Flight Center, $890,000;

(3) Modifications for fire protection and safety, Goddard Space Flight Center, $1,220,000;

(4) Acquisition of land, Jet Propulsion Laboratory, $150,000;

(5) Addition to systems development laboratory, Jet Propulsion Laboratory, $4,880,000;

(6) Addition for integrated systems testing facility, Jet Propulsion Laboratory, $3,790,000;

(7) Modification of water supply system, Lyndon B. Johnson Space Center $935,000;

(8) Modification of 6,000 pounds per square inch air storage system, Langley Research Center, $515,000;

(9) Rehabilitation of 16-foot transonic wind tunnel, Langley Research Center, $2,990,000;

(10) Modification of propulsion systems laboratory, Lewis Research Center, $2,580,000;

(11) Modification of rocket engine test facility, Lewis Research Center, $660,000;

(12) Construction of X-ray telescope facility, Marshall Space Flight Center, $4,060,000;

(13) Modification of beach protection system, Wallops Space Flight Center $4,060,000;

(14) Construction of optimized, infrared telescope facility, Mauna Kea, Hawaii, $10,040,000;

(15) Modifications for fire protection and safety at various tracking and data stations, $1,430,000;

(16) Space Shuttle facilities at various locations, $77,020,000, as follows:

(A) Construction of Orbiter landing facilities, John F. Kennedy Space Center,

(B) Construction of Orbiter processing facility, John F. Kennedy Space Center,

(C) Modification to launch complex 39, John F. Kennedy Space Center,

(D) Modifications for dynamic test facilities Marshall Space Flight Center, and National Aeronautics and Space Administration Industrial Plant, Downey, California,

(E) Construction of Orbiter horizontal flight test facilities, Flight Research Center,

(F) Modifications for crew training facilities, Lyndon B. Johnson Space Center,

(G) Modification of the vibration and acoustic test facility, Lyndon B. Johnson Space Center,

(H) Construction of materials test facility, White Sands Test Facility,

(I) Modifications for solid rocket booster structural test facilities, Marshall Space Flight Center;

(17) Rehabilitation and modification of facilities at various locations, not in excess of $500,000 per project, $14,900,000;

(18) Minor construction of new facilities and additions to existing facilities at various locations, not in excess of $250,000 per project, $4,500,000;

(19) Facility planning and design not otherwise provided for, $10,900,000.

(c) For "Research and program management," $749,624,000, and such additional or supplemental amounts as may be necessary for increases in salary, pay, retirement, or other employee benefits authorized by law.

(d) Nothwithstanding the provisions of subsection 1(g), 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 at locations other than installations of the Administration 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 in accordance with this subsection for the 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 Speaker of the House of Representatives and the President of the Senate and 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, (1) any amount appropriated for "Research and development" or for "Construction of facilities" may remain available without fiscal year limitation, and (2) maintenance and operation of facilities, and support services contracts may be entered into under the "Research and program management" appropriation for periods not in excess of twelve months beginning at any time during the fiscal year.

(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) Of the funds appropriated pursuant to subsections 1(a) and 1(c), not in excess of $10,000 for each project, including collateral equipment, may be used for construction of new facilities and additions to existing facilities, and not in excess of $25,000 for each project, including collateral equipment, may be used for rehabilitation or modification of facilities: *Provided,* That of the funds appropriated pursuant to subsection 1(a), not in excess of $250,000 for each project, including collateral equipment, may be used for any of the foregoing for unforeseen programmatic needs.

(h) The authorization for the appropriation to the National Aeronautics and Space Administration of $10,900,000, which amount represents that part of the authorization provided for in section 1(b)(12)(I) of the National Aeronautics and Space Administration Authorization Act, 1974, for which appropriations have not been made, shall expire on the date of the enactment of this Act.

SEC. 2. Authorization is hereby granted whereby any of the amounts prescribed in paragraphs (1) through (18), inclusive, of subsection 1(b) may, in the discretion of the Administrator or his designee, be varied upward 10 per centum to meet unusual cost variations, but the total cost of all work authorized under such paragraphs shall not exceed the total of the amounts specified in such paragraphs.

SEC. 3. Not to exceed one-half of 1 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 $10,000,000 of the funds appropriated pursuant to subsection 1(b) hereof (other than funds appropriated pursuant to paragraph (19) 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 unless (A) a period of thirty days has passed after the Administrator or his designee has transmitted to the Speaker of the House of Representatives and to the President of the Senate and 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, or (B) each such committee before the expiration of such period has transmitted to the Administrator written notice to the effect that such committee has no objection to the proposed action.

SEC. 4. Notwithstanding any other provision of this Act—

(1) no amount appropriated pursuant to this Act may be used for any program 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 in excess of the amount actually authorized for that particular program by sections 1(a) and 1(c), 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,

unless (A) a period of thirty days has passed after the receipt by the Speaker of the House of Representatives and the President of the Senate and each such committee of notice given by the Administrator or his designee containing a full and complete statement of the action proposed to be taken and the facts and circumstances relied upon in sup-

port of such proposed action, or (B) each such committee before the expiration of such period has transmitted to the Administrator written notice to the effect that such committee has no objection to the proposed action.

SEC. 5. It is the sense of the Congress that it is in the national interest that consideration be given to geographical distribution of Federal research funds whenever feasible, and that the National Aeronautics and Space Administration should explore ways and means of distributing its research and development funds whenever feasible.

SEC. 6. Section 203(b)(9) of the National Aeronautics and Space Act of 1958, as amended (42 U.S.C. 2473(b)(9)), is amended to read as follows:

"(9) to obtain services as authorized by section 3109 of title 5, United States Code, but at rates for individuals not to exceed the per diem rate equivalent to the rate for GS–18;".

SEC. 7. The National Aeronautics and Space Administration is authorized, when so provided in an appropriation act, to enter into a contract for tracking and data relay satellite services. Such services shall be furnished to the National Aeronautics and Space Administration in accordance with applicable authorization and appropriation acts. The Government shall incur no costs under such contract prior to the furnishing of such services except that the contract may provide for the payment for contingent liability of the Government which may accrue in the event the Government should decide for its convenience to terminate the contract before the end of the period of the contract. Title to any facilities which may be required in the performance of the contract and constructed on Government-owned land shall vest in the United States upon the termination of the contract. The Administrator shall in January of each year report to the Committee on Science and Astronautics and the Committee on Appropriations of the House of Representatives and the Committee on Aeronautical and Space Sciences and the Committee on Appropriations of the Senate the projected aggregate contingent liability of the Government under termination provisions of any contract authorized in this section through the next fiscal year. The authority of the National Aeronautics and Space Administration to enter into and to maintain the contract authorized hereunder shall remain in effect as long as provision therefor is included in acts authorizing appropriations to the National Aeronautics and Space Administration for subsequent fiscal years.

SEC. 8. This act may be cited as the "National Aeronautics and Space Administration Authorization Act, 1975".

Mr. TEAGUE (during the reading). Mr. Chairman, I ask unanimous consent that the bill be considered as read, printed in the RECORD, and open to amendment at any point.

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

There was no objection.

AMENDMENT OFFERED BY MR. HECHLER OF WEST VIRGINIA

Mr. HECHLER of West Virginia. Mr. Chairman, I offer an amendment.

The clerk read as follows:

Amendment offered by Mr. HECHLER of West Virginia: Page 2, lines 13 and 14, delete the amount "$76,600,000" and insert in lieu thereof the amount "$80,500,000".

Mr. HECHLER of West Virginia. Mr. Chairman, during our committee hearings, Dr. James G. Fletcher, Administrator of NASA, reported that during the past year NASA has intensified its interest and activity in advanced research related to the extraction and combustion of coal. NASA has worked very closely with the Department of the Interior, and in particular with the Bureau of Mines and the Office of Coal Research in developing cooperative arrangements for the application of space-related research toward the solution of problems related to coal.

At the time NASA's budget was being developed and formulated, of course the Nation's energy situation was considerably different than today. There is no question that increased use of coal is vital to solve the Nation's energy problems.

What on earth does space have to do with coal?

In the first place, NASA has been deeply involved in protecting astronauts in a hostile environment—and since coal mines can be very dangerous places to work, it stands to reason that many of the lessons learned in outer space may be used in protecting miners beneath the earth.

Second, the extensive research and development which NASA has carried through both on space vehicles and on airplanes has resulted in expertise in areas like combustion efficiency on many types of engines and many kinds of fuel. This knowledge and experience can and should be transferred and utilized in more efficient combustion of coal.

Third, in recent years NASA has been hard at work on how to reduce harmful emissions from aircraft engines. Again, this experience can be applied in getting cleaner-burning coal.

My amendment is not designed to start up an entirely new phase of work in NASA; this is work which is already progressing, and my amendment is designed to speed up and emphasize the value of space-related research which can be translated into early payoffs to help solve the Nation's energy problems.

For example, the Marshall Space Flight Center at Huntsville, Ala., is evaluating for NASA and the Bureau of Mines hydrocarbon detectors previously used for detecting hydrogen leaks in launch vehicle fuel tanks, for possible use in detecting methane in coal mines. The development of fire control materials and techniques, particularly since the disastrous fire which killed three Apollo astronauts, has been high on NASA's priority list and the technology is transferable to prevent and control fires in coal mines.

NASA has done a great deal of work with magnetic fluids, and this work can possibly be applied in separating the scrap from the coal in the extraction process. Efficient, low-weight nickel-zinc batteries developed by NASA can be used in mine vehicles and to reduce the weight of mine safety equipment which the individual miner carries. NASA's Lewis Research Center in Ohio is developing more efficient, high-temperature combustion techniques which can be utilized to enable more efficient use of coal for electricity.

My amendment adds an authorization of $3.9 million to speed up the research which NASA is already doing in areas relating to the mining and combustion of coal.

My amendment is designed not to start an entirely new phase of work in NASA because such work is already progressing. My amendment is designed to speed up and emphasize the value of space-related research which can be translated into early payoffs to help solve the Nation's energy problems.

Mr. Chairman, this amendment was discussed in both the subcommittee and the full committee. The committee report on page 12 under the heading of "Coal-Related Research" urges NASA to press forward vigorously in the application of advanced research related to the extraction and combustion of coal.

Mr. Chairman, I ask for support for this amendment.

Mr. GROSS. Mr. Chairman, I move to strike the necessary number of words.

Mr. Chairman, this is a voluminous report accompanying this bill. I note on page of the report a table stating the cost of the bill as $3,253,184,000, but I am unable to find in the report any other table showing the actual appropriation for last year. I would like to ask someone knowledgeable about this bill how much was actually appropriated for the same general purpose last year.

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

Mr. GROSS. I yield to the gentleman from Florida.

Mr. FUQUA. The appropriation last year was $3,002,100,000. It is about $200 million.

Mr. GROSS. About $200 million over last year?

Mr. FUQUA. Yes. Primarily the increase is in the Space Shuttle area, because as I mentioned yesterday in my remarks, this is beginning to build up and will peak about 1975 or 1976.

Mr. GROSS. Is there no way by which we can cut down and hold this bill at the level of last year's spending, or less, in view of the critical financial condition of the country?

Mr. FUQUA. I might point out, the budget now is almost half what it was a few years ago. It was $5 billion and it is now down to slightly over $3 billion.

Mr. GROSS. There is a very good reason for that. I should think it would be cut, in view of the curtailed space activities of the Aeronautics and Space Administration.

Let me ask concerning page 89 of the report, the third paragraph, under the designation of the supersonic cruise aircraft research program. That, I take it, is a continuation of research on the SST, the supersonic transport, which was supposed to have ended a year or two ago.

Mr. HECHLER of West Virginia. Mr. Chairman, will the gentleman from Iowa yield?

Mr. GROSS. I yield to the gentleman.

Mr. HECHLER of West Virginia. Twenty-seven years ago in October 1947, a young officer from West Virginia named Chuck Yeager made the first supersonic flight in the Bell X–1 airplane. That was 27 years ago and this Nation has moved ahead by vast strides in supersonic technology since that time. We do not want to stand still. We do not want to go back to 1947 and simply rest there. It is essential to the progress of this Nation to investigate, to press forward the frontiers of technology, and to conduct research in the use of materials, the

stresses created by high speed flight, minimizing noise and pollution, and assessing aerodynamics, propulsion, and structural efficiency. This does not mean we are authorizing a supersonic aircraft.

Mr. GROSS. Does the gentleman agree that on the basis of the French and British experiments with the SST, it is a great big white elephant?

Mr. HECHLER of West Virginia. Well, I am an opponent of the SST, I will say to the gentleman.

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

Mr. GROSS. Yes, I yield to the gentleman from New York.

Mr. WYDLER. I think we are really going to have to try to understand that the funds that are in this bill for research into the problems of supersonic flight have nothing to do with building a supersonic airplane as such.

We also have funds in this bill, for example, to look into the problems of hypersonic flight, that is flight even faster than supersonic flight; but it is research into the same problems and concepts in that area, not into building a particular airplane. There is no money in this bill to build a supersonic transport. We have given up on that. This particular Congress has spoken on that issue and that particular plane markup has been dismantled. That project is at an end.

There is no attempt here in any way to revive the supersonic transport. We are continuing in the supersonic field, in the hypersonic field and in all aeronautics continuing research to try to understand it better and learn more about it and that is all these funds are for. These are not funds for a specific airplane. None of these funds are for anything of that type.

Mr. GROSS. I regret I do not have the hearings before the Subcommittee on Appropriations last year, but if memory serves me at all well, the money appropriated was practically designated as a continuation of the supersonic transport fiasco.

Mr. WYDLER. I can only assure the gentleman that I was a part of the hearings on these matters in the House and there was no attempt whatsoever to relate the spending of these funds to the resurrection of the supersonic aircraft. It was general investigative funds.

Mr. GOLDWATER. Mr. Chairman, I appreciate my colleague's concern with supersonic cruise aircraft research. This program is not aimed at circumventing the will of past Congresses with respect to a U.S. supersonic passenger carrier. One goal is to assemble comprehensive data in order to assess the environmental impact of foreign supersonic cruise aircraft. Another objective is to expand our technology base so that we can maintain the high standards of our current supersonic military aircraft. Aspects of this research such as improving structural features and reducing engine emission and noise levels have applicability to both civil and military aircraft.

With our current level of technology the balances may be tipped against supersonic cruise aircraft. But I do not believe we should abandon our efforts to understand and solve its problems. Where would our Nation be today if we abandoned every promising new idea because of a few initial obstacles?

Furthermore, an active program is essential in order that we might stay on top of any breakthroughs which other nations might achieve. Without an ongoing effort to assimilate quickly foreign advances, the timelag before implementation would place us at a serious competitive disadvantage. The cost of a crash "catchup" program would be much more than the total cost of a continuing modest effort.

If the negative side effects of supersonic cruise aircraft can be overcome then there will be time enough to reconsider its social desirability. I look forward to the day when technology advances will give Congress the opportunity to examine this topic from an improved position. Supersonic cruise aircraft research is not aimed at surreptitiously slipping a major aircraft project through Congress backdoor. When sufficient progress is achieved the advocates of supersonic technology will be proud to come through the front door.

The CHAIRMAN. The question is on the amendment offered by the gentleman from West Virginia (Mr. HECHLER).

The amendment was agreed to.

AMENDMENT OFFERED BY MR. VANIK

Mr. VANIK. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. VANIK: On page 2, line 7, strike "$177,500,000", and substitute "$179,500,000";

On page 2, line 9, after "Phenomena;" add "$2,000,000 is designated for research on hydrogen production and utilization systems;"

Mr. VANIK. Mr. Chairman, I rise to offer an amendment to the committee bill. My amendment seeks to increase the authorized level of funding for hydrogen fuel research by an additional $2 million. Under the committee bill, NASA is authorized to conduct studies into hydrogen production and utilization systems. But this research effort is low-key and inadequately funded.

Hydrogen offers us great potential as a fuel for the future. It can be simply manufactured by splitting water into its component parts—hydrogen and oxygen. The energy required to split water apart can be supplied in any one of a number of ways—conventional electric powerplants, nuclear powerplants, solar energy, wind energy, and ocean thermal gradients.

The tremendous appeal of hydrogen fuel is that it is pollution-free. When hydrogen gas is burned, water is the only byproduct. Unlike electricity, hydrogen can be easily transported and stored.

There is already research being conducted into limited applications by hydrogen fuel. The committee has recognized the importance of exploring hydrogen as an aviation fuel by providing $655,000 for research into the use of liquid hydrogen in our planes. In addition, the committee report mentions the research presently being conducted into hydrogen fuel for automobiles by the Jet Propulsion Laboratory.

This research—although important—involves only limited and specific applications of hydrogen fuel. Hydrogen can do much more. It can be utilized for industrial processes and for a wide range of residential and commercial applications. In short, hydrogen provides us with a sensible and convenient alternative to our rapidly dwindling supplies of natural gas.

But before this conversion to an economy based on hydrogen can be made, extensive research must be conducted into three basic areas: production, safe transmission, and utilization. We must find the answers to questions such as: What is the most economical way to produce hydrogen? To what extent is hydrogen compatible with our existing transmission network for natural gas? What are the obstacles to converting to a hydrogen-based economy?

Virtually all research into the long-range potential of hydrogen is being conducted, on a limited basis, by only three companies. These resources are limited. In fact, a research program into the transmission of hydrogen gas was recently terminated for lack of funds. Experts and scientists in the field have told me that a budget of $2 million, as I have proposed, could be productively and wisely committed immediately to hydrogen research.

Other nations are actively pursuing this course. I understand that Italy, under the URATOM program, is alone investing $2 million a year to study the production of hydrogen from nuclear powerplants. Japan is also proceeding with a multimillion-dollar program in hydrogen production as part of their proposed $4 billion sunshine energy project.

We can no longer allow hydrogen research to go unnoticed. Its potential is too great; its promise is too important for us to neglect hydrogen any longer.

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

Mr. VANIK. Mr. Chairman, I will be very happy to yield to my distinguished colleague.

Mr. FREY. Mr. Chairman, I would just like to associate myself with the remarks that have been made by the gentleman from Ohio (Mr. VANIK).

Mr. Chairman, I certainly am in favor of studying new energy sources. Hydrogen is a fuel that we can use which is not going to harm the environment, and whose byproducts are obvious. It will be an asset.

Mr. Chairman, certainly the amount of money that is in this bill is very small compared to the needs. This helps somewhat. I think it is a good amendment and will be glad to support it.

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

Mr. VANIK. I will be happy to yield to the gentleman from Iowa.

Mr. GROSS. Mr. Chairman, where is this hydrogen research being carried out?

Mr. VANIK. Mr. Chairman, the present work is being done, as I understand, at the Jet Propulsion Laboratory. This is where the project is going on for development of hydrogen for automobile use.

Mr. GROSS. Mr. Chairman, where is that?

Mr. VANIK. Pasadena, Calif. I would urge a wider program. I urge a program of hydrogen research for which we can contract out and develop, I think, useful

alternatives to the desperate need for natural gas.

Mr. Chairman, I hope the committee will accept the amendment.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Ohio (Mr. VANIK).

The amendment was agreed to.

AMENDMENT OFFERED BY MS. ABZUG

Ms. ABZUG. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Ms. ABZUG: Page 12, after line 3, insert the following new section:

"SEX DISCRIMINATION

"SEC. 8. No individual shall on the ground of sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity carried on or receiving Federal assistance under this Act. This provision shall be enforced through agency provisions and rules similar to those already established with respect to racial and other discrimination under title VI of the Civil Rights Act of 1964. However, this remedy is not exclusive and will not prejudice or remove any other legal remedies available to any individual alleging discrimination."

Renumber following section accordingly.

Ms. ABZUG. Mr. Chairman, I have from time to time appeared on the floor and requested this kind of an amendment in legislation pending before us.

It is important to note that under title VI of the Civil Rights Act, which covers essentially grant or federally assisted programs, there is no prohibition against discrimination based on sex. There is, however, a prohibition against discrimination on the grounds of race, color, or national origin. It is to fill this void that this amendment has been proposed.

Mr. Chairman, the Members may have observed that, since I have been here, this kind of amendment has been enacted in several other pieces of legislation providing for federally assisted programs: Public works, the energy bills, the water resources bills, and many others.

Mr. Chairman, I urge the committee to accept this amendment. I think it is particularly important in this instance, because there has already been a great deal of discussion concerning NASA's compliance with other provisions of the Civil Rights Act, particularly with respect to NASA's own employment practices.

I, myself, along with other Members of the House, have made statements in objecting to the dismissal of Mrs. Ruth B. Harris, who was the highest ranking woman in NASA. We expressed a great deal of shock and dismay concerning her dismissal. In this body, hearings have been held before the Committee on the Judiciary, and I, as well as other Members, have addressed myself to the issue of discrimination in NASA's own employment practices.

In the other body, a great deal of concern was expressed after hearings were held regarding Mrs. Harris' dismissal. I believe that NASA was asked to submit to the committee detailed and regular reports on the progress of its Equal Employment Opportunity programs as they relate to minorities and to women.

Mr. Chairman, I think this is important. I commend the chairmen of the committees for their efforts in both bodies and for having held these hearings and obtained this information.

I hope that we in this body and in this committee will spend some time in the consideration of these problems and in the consideration of the NASA program in order to make certain that the benefits of the program are made equally available to all people on a nondiscriminatory basis.

Women and minorities, I think, have thus far been significantly excluded through the policies of this agency.

I, therefore, urge the committee to accept this amendment as being in the spirit of the law and an important direction that this agency should be instructed by the Congress to take.

Mr. Chairman, I appreciate the opportunity of presenting this amendment.

Mr. EDWARDS of California. Mr. Chairman, I rise in support of the amendment.

Mr. Chairman, I urge the committee to accept the amendment offered by the gentlewoman from New York (Ms. ABZUG).

Mr. Chairman, the subject of racial and sex discrimination in NASA's employment practices has been a concern of the Judiciary Subcommittee on Civil Rights and Constitutional Rights for many months.

Our concern was first triggered by events in October of last year which led to the firing of Mrs. Ruth Bates Harris, NASA deputy assistant administrator for the equal opportunity program and a woman long identified and highly regarded for her innovative and dedicated work in the area of human rights.

I determined that hearings should be initiated in order to review NASA's record and to insure that Federal civil rights laws and regulations were vigorously enforced. Unique to the hearings was my desire to review NASA's role in assuring equal opportunity in conjunction with the responsibilities of both the Office of Federal Contract Compliance of the Department of Labor and the Office of Federal Equal Employment Opportunity of the Civil Service Commission. While the testimony of the latter two agencies will be heard subsequently, NASA did testify about its equal opportunity performance record before my subcommittee on March 14, 1974. On the day before, critical testimony about the agency's civil rights record was voiced by several well-known national civil rights organizations.

Testimony presented to the subcommittee revealed that while NASA has been setting records in extra-terrestrial exploration, it has fallen far below the mark in assuring equal opportunity as required by Federal law. For example:

First. NASA's minority employment figure is approximately 5.5 percent, while the national figure on the Federal Government is now around 20 percent.

Second. Of NASA's 250 supergrade—policymaking—positions, only 1 is filled by a minority person.

Third. Out of a total of 47,531 persons employed by NASA contractors, only 2.5 percent are Spanish surnamed.

Fourth. The average GS grade of all NASA employees is about a GS–11. The average grade for NASA female employees is GS–6.

Fifth. Although utilizing a similar resource pool for skilled employees, NASA contractors utilize three times the number of minority persons as does NASA.

While promising improvement, NASA presented very little hard data designed to elevate its equal opportunity commitment beyond hollow and well-rehearsed rhetoric. The enrollment figures of its co-op program—highly touted as a program by which the number of women and minorities finishing college with a scientific competence will be increased—are illustrative:

First. For 1974, out of 792 enrollees, only 26 are Spanish surnamed.

Second. Out of 792 enrollees, there is not one Asian-American female participating. Not one American Indian—male or female—is enrolled in the co-op program.

Third. Of the 792 enrollees inthe co-op program, which is designed to increase the number of women and minorities in all disciplines of science, 514 are white males.

Clearly, NASA's equal opportunity program is not working. But why is it not working? The answer can be found in Samuel F. Yette's book entitled "The Choice":

> The basic move is keeping the three required ingredients to any solution—authority, responsibility, funds and/or personnel—in delicate suspension. One agency, for example, is given responsibility for a particular job, while another has the authority (but not the responsibility) while still another has either the funds or the staff—and never the three shall meet.

This description fits precisely the program design of NASA's equal opportunity effort. Authority for NASA-wide equal opportunity rests with the Equal Opportunity Program Office directed by an Assistant Administrator. However, each of the 10 NASA field installations—including headquarters—appears to exercise day-to-day responsibility for equal opportunity at NASA. Although highly centralized in other areas such as budgeting, internal auditing, and technological policy review, NASA equal opportunity program is decentralized and uncoordinated.

The Equal Opportunity Program Office lacks authority to veto the hiring of its field complement with the result the installations are not uniform, nor united in their efforts to insure equal opportunity. One field installation operates a day-care center for the children of employees, an obvious assistance in increasing the number of female employees, but nowhere in the NASA program design is there a mechanism by which this accomplishment can be replicated by the other installations. Modest goals and timetables for both internal equal opportunity and contractors, prepared by the Equal Opportunity Program Office, are accepted by some installations and rejected by others with the unfortunate result that installations accepting their goals and timetables wonder why and, indeed, are encouraged to pursue equal opportunity less vigorously since the effort is not agencywide.

Staff members with less than impressive credentials for equal opportunity are

hired as replacements for qualified minority and female staff who resign in disillusionment over NASA equal opportunity policies. Although NASA belatedly hired an agencywide Federal women's coordinator about 2 weeks ago, she left after less than a week on the job. Her resignation, on the heels of the resignation of two more professional equal opportunity staff members, brought to six the number of minority and/or female professionals to leave NASA's Equal Opportunity Program Office since August 1973. Such a high turnover rate among professionals neither strengthens the chance for pursuit of equal opportunity, nor does it speak well of an office which, despite its mission, has been directed by a procurement chief, a labor relations specialist, and now an engineer. Interestingly enough, none of NASA's technical missions are directed by a Ph. D. in sociology or related fields.

Finally, to complete the trilogy of ingredients hanging in delicate suspension, but never meeting, there is money. At NASA, money for equal opportunity is not a line item. Thus, while the Equal Opportunity Office spends about $1 million annually, it is difficult to learn how much money is appropriated each fiscal year for equal opportunity at NASA. Field installations prepare their budgets including an amount for equal opportunity, but neither the adequacy of the amount, not the line item designations are apparently reviewed by the Assistant Administrator for the equal opportunity program with an eye toward coordination and maximum utilization. And thus, this is how a Federal Government agency purporting to insure equal opportunity develops and maintains the worst employment record in the Federal Government.

This record must be improved by a firm commitment from top management, a competent equal opportunity staff and, above all, a program design adequately funded and oriented to results, not good intentions. My colleagues, I serve notice today that I intend to scrutinize closely developments in the NASA Equal Opportunity Program Office during the coming fiscal year. Further, I plan to continue the subcommittee's review into the employment practices of NASA and other Federal Government agencies, because this Nation can no longer tolerate bureaucratic lawlessness and the wasting of its most valuable resource—a diverse citizenry.

This amendment relating to nondiscrimination in the awarding of grants by NASA is an important step in the right direction. I commend the gentlewoman from New York. I urge committee approval.

Mr. TEAGUE. Mr. Chairman, I rise in opposition to the amendment.

I do not oppose the amendment because of its objective but because I think it is rather unfair to NASA. NASA has done a good job in this area. Our committee has not ignored the situation, but when you have an agency like NASA that goes from 34,000 people in 1967 down to less than 24,000 people in 1974, when 47 percent of them are scientists and engineers, and when there was only about 500 women and 500 minority persons graduated in the field of science and engineering last year and they can get jobs that pay $1,200 more per year than NASA can pay them, certainly you see it has created a problem for NASA.

I know personally they have made a real effort in this field and they have set their goal this year to try to improve the situation. But if I understand the figures correctly, the female engineers and scientists, in our country, make up only about 3 percent of the total figures in these professions. NASA's percentage is 2.5. So they have made a sincere effort.

I want to let the RECORD show that NASA has recognized this in many ways. They set their goal of trying to do better next year in this field but they have had a real problem in the minority and sex fields. They are making a sincere effort and, as I said, I really think the amendment to a considerable degree is unimportant because it is already in the law. They are trying to do what the amendment says right now.

Ms. ABZUG. Will the gentleman yield?

Mr. TEAGUE. I am glad to yield to the gentlewoman.

Ms. ABZUG. I appreciate the remarks of the chairman with respect to the internal employment policies of the agency. The record indicates from what was said here by the gentleman from California (Mr. EDWARDS) and what was said in the other body by the gentleman from Wisconsin, Mr. PROXMIRE, that there has been a considerable problem of discrimination in the NASA agency not only with respect to professional levels but also with regard to clerical levels such as GS–6 and so on.

My amendment, however, emphasizes the problem that exists. It specifically refers, however, to the grant programs. Title VII deals with direct employment and does private by law a prohibition against discrimination on the grounds of race as well as sex, but title VI of the Civil Rights Act, which covers Federal grants programs does not prohibit discrimination on grounds of sex. Since this is so a contract could be let out or a grant given to the University of California even though it was demonstrated that the university was discriminating against women.

I know the chairman and I know he would want to show that in the event there were grants given to an institution which did discriminate on the grounds of sex, he would want to do something about it.

Therefore I think the Chairman would want very much to see that this subject matter is covered, just as it has been covered in the Energy Act, the Highway Act, the Public Works Act, the Water Resources Act, and some of the educational acts and hospital acts which do have grant programs in them.

The purpose of this amendment is to plug the loophole which is not provided for under existing law.

I think this committee as well as the other committees will continue their good work, and their oversight in seeing that NASA does begin to open up itself to women and minorities. This amendment will aid in this goal.

The CHAIRMAN. The question is on the amendment offered by the gentlewoman from New York (Ms. ABZUG).

The question was taken; and on a division (demanded by Ms. ABZUG) there were—ayes 21, noes 35.

So the amendment was rejected.

Mr. CASEY of Texas. Mr. Chairman, I move to strike the requisite number of words.

Mr. CASEY of Texas. Mr. Chairman, I want to commend the Committee on Science and Astronautics for its diligence in preparing this bill and to commend the National Aeronautics and Space Administration for the tremendous work being done both in outer space and in helping solve the domestic problems of this Nation.

It is becoming increasingly apparent that NASA is not just engaged in sending men into outer space. While its space achievements have indeed given the United States a favorable image throughout the world, the unique scientific and technical talents of the NASA team are now being recognized for contributions in basic research that benefits all Americans.

Our distinguished colleagues of the Committee on Science and Astronautics, under the capable leadership of my fellow Texan, Chairman TEAGUE, are obviously well-versed on the achievements and capabilities of NASA as evidenced by their 1975 authorization recommendations.

While I know that the members of this committee are intimitately knowledgeable of the work that is going on in our NASA program, and that all of our colleagues are acutely aware of our achievements in space, I would like to cite just a few of the accomplishments and the work that may not be so well known.

Without going into the highly technical aspects involved, NASA is utilizing its knowledge gained from the space program to improve our environment, to provide better housing, to protect the health of our citizens, to make our transportation systems more efficient, and to enhance many other aspects of the daily lives of all Americans.

In the field of environmental protection, NASA is developing the world's most sophisticated system for detecting, measuring and tracing atmospheric pollution. It has developed new instrumentation for sewage system measurement. NASA has given us a new system that allows the recycling of valuable nonferrous metals from junked automobiles. And a new system to monitor beach erosion has been developed.

To improve our housing and urban construction, NASA has developed a device to detect lead paint in older housing and a new type of flat conductor cable to carry electrical power circuits in mass housing.

In the specific field of public safety, NASA has brought us an improved short-range radio communication system for firefighters, new fire retardant materials for clothing and other uses, the means to effectively test materials for flammability, an improved breathing apparatus for those who work in hazardous conditions and an early-warning fire detection device. Even the Lunar Rover, which carried our space men on the moon's sur-

face, is being adapted as a vehicle that can be sent by remote control into mines to inspect suspected danger areas without endangering human lives.

The field of transportation is benefiting by NASA-developed systems for computerized bridge safety inspection, a means for measuring thermal stress on rails and on the wheels of rail cars, and a fire protection system for tank cars. A new nickel-zinc battery has been developed. NASA has brought us vastly improved brake linings, better pavement striping materials for road safety, and a new material that will provide permanent patches on our streets under any weather conditions.

Perhaps the greatest contributions of all by NASA, however, and the least recognized, are those in the medical field. The medical and health related contributions that have been spun off from our space efforts are almost countless. Only in the years ahead will we truly be able to measure the benefits in terms of the lives saved and improved by NASA's technology.

Because of NASA we now have a rechargeable cardiac pacemaker, an effective emergency cardiac care system, a computer system for cardiac diagnosis, a system for mapping placement of artificial heart valves and new sophistication in the instruments used to measure and diagnose cardiovascular troubles.

There is a new system for detecting bacteria. New steps have been taken against leukemia through a method of white blood cell preservation and biological isolation clothing.

Developments in computer technology by NASA have brought us new ways of analyzing infrared photos of burns. A new infant respiratory assist device has been developed. And there are a multitude of new pieces of equipment for tracing and analyzing body elements used in medical diagnosis.

Equipment developed for our spacemen has also been adapted into new rehabilitation equipment that is far superior to previous methods of exercising and retraining the paralyzed and other patients with special physical afflictions. Space technology has even been used to develop an automated device that identifies the denominations of paper money for the blind.

Mr. Chairman, I could continue at length enumerating the contributions of NASA to our daily lives. And I have not even talked about the many programs in which NASA shares its technology with the industries of our Nation and the world.

Suffice it to say that NASA today is far more than the glamor of firing men into space or sending them to walk on the Moon.

I would also like to make it clear that the benefits provided by NASA are just beginning.

In the future, the technology gained through NASA's efforts will provide new means of heating and cooling our homes and even running our factories as we harness the Sun's energy and move into other highly sophisticated methods of meeting the Nation's vital power needs.

NASA scientists will be at the vanguard in devising new ways to meet America's energy needs, just as they have provided revolutionary techniques for saving lives and improving our standards of living.

Perhaps some will say that I speak with prejudice because the Lyndon B. Johnson Space Center is in my district.

Mr. Chairman, I confess to my bias for NASA and the pride that I take in the Johnson Space Center, but I believe that any Member of this Congress, or any American, who knows the contributions of NASA to our Nation shares the same feelings.

I remain convinced that historians will record the investment of the United States in its space program and the earthly benefits that result as one of the wisest expenditures, either monitarily or in other terms, that any civilization has ever made.

Our Committee on Science and Astronautics is obviously aware of NASA's contributions to this country and its citizens. Again, I offer all members of this able committee my commendation and give them by sincere thanks for their leadership in making certain that the far reaching work of NASA is continued and enhanced.

I know that future generations will remember our actions on behalf of NASA with gratitude and I urge the full support of this Congress for the recommendations before us today.

NASA remains a sound investment for America.

The CHAIRMAN. Are there further amendments? If not, under the rule the Committee rises.

Accordingly the Committee rose; and the Speaker having resumed the chair, Mr. McKAY, 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. 13998) to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes, pursuant to House Resolution 1057, 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.

The SPEAKER. The question is on the passage of the bill.

The question was taken; and the Speaker announced that the ayes appeared to have it.

Mr. ASHBROOK. 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 Sergeant at Arms will notify absent Members.

The vote was taken by electronic device; and there were—yeas 341; nays 37, not voting 55, as follows:

[Roll No. 183]

YEAS—341

Adams	Findley	Michel
Addabbo	Fish	Minish
Anderson, Calif.	Fisher	Mink
Anderson, Ill.	Flood	Minshall, Ohio
Andrews, N.C.	Flowers	Mitchell, Md.
Andrews, N. Dak.	Foley	Mitchell, N.Y.
Annunzio	Ford	Mizell
Archer	Forsythe	Moakley
Arends	Fountain	Mollohan
Armstrong	Frelinghuysen	Moorhead, Calif.
Ashbrook	Frey	Moorhead, Pa.
Badillo	Fulton	Morgan
Bafalis	Fuqua	Mosher
Baker	Gaydos	Moss
Barrett	Giaimo	Murphy, Ill.
Bauman	Gibbons	Murphy, N.Y.
Beard	Gilman	Murtha
Bell	Ginn	Natcher
Bennett	Goldwater	Nedzi
Bergland	Gonzalez	Nelsen
Bevill	Grasso	Nichols
Biester	Green, Oreg.	Nix
Bingham	Green, Pa.	O'Brien
Boggs	Griffiths	O'Hara
Boland	Grover	O'Neill
Bolling	Gubser	Owens
Brademas	Gude	Parris
Brasco	Gunter	Passman
Bray	Guyer	Patten
Breaux	Hamilton	Pepper
Breckinridge	Hammer-schmidt	Perkins
Brinkley	Hanley	Pettis
Brooks	Hansen, Idaho	Peyser
Broomfield	Harsha	Pike
Brotzman	Hastings	Poage
Brown, Calif.	Hawkins	Podell
Brown, Ohio	Hébert	Powell, Ohio
Broyhill, Va.	Hechler, W. Va.	Preyer
Burgener	Heckler, Mass.	Price, Ill.
Burke, Calif.	Heinz	Price, Tex.
Burke, Fla.	Helstoski	Pritchard
Burke, Mass.	Henderson	Quie
Burleson, Tex.	Hillis	Quillen
Burton	Hinshaw	Railsback
Butler	Hogan	Rarick
Byron	Holt	Rees
Camp	Horton	Regula
Carney, Ohio	Howard	Reuss
Casey, Tex.	Huber	Rhodes
Cederberg	Hudnut	Rinaldo
Chamberlain	Hungate	Roberts
Chappell	Hunt	Robinson, Va.
Chisholm	Jarman	Robison, N.Y.
Clancy	Johnson, Calif.	Rodino
Clark	Johnson, Colo.	Roe
Clausen, Don H.	Jones, Ala.	Rogers
Clawson, Del	Jones, N.C.	Roncalio, Wyo.
Clay	Jones, Okla.	Roncallo, N.Y.
Cleveland	Jones, Tenn.	Rosenthal
Cohen	Jordan	Rostenkowski
Collier	Karth	Roush
Collins, Ill.	Kastenmeier	Rousselot
Collins, Tex.	Kemp	Roy
Conte	Ketchum	Runnels
Corman	King	Ruth
Cotter	Kluczynski	Ryan
Coughlin	Koch	St Germain
Cronin	Kuykendall	Sandman
Culver	Kyros	Sarasin
Daniel, Dan	Lagomarsino	Sarbanes
Daniel, Robert W., Jr.	Landrum	Satterfield
Daniels, Dominick V.	Leggett	Scherle
Danielson	Lehman	Schneebeli
Davis, Ga.	Lent	Sebelius
Davis, Wis.	Litton	Seiberling
de la Garza	Long, La.	Shriver
Delaney	Long, Md.	Sikes
Denholm	Lott	Skubitz
Dennis	Luken	Smith, Iowa
Dent	McClory	Smith, N.Y.
Derwinski	McCloskey	Spence
Devine	McCormack	Staggers
Dickinson	McDade	Stanton, J. William
Diggs	McEwen	Stanton, James V.
Dingell	McFall	Stark
Donohue	McKay	Steed
Downing	McKinney	Steele
Drinan	Macdonald	Steelman
Dulski	Madden	Steiger, Ariz.
Duncan	Madigan	Stratton
du Pont	Mahon	Stuckey
Eckhardt	Mallary	Symington
Edwards, Ala.	Mann	Taylor, N.C.
Edwards, Calif.	Maraziti	Teague
Eilberg	Martin, Nebr.	Thompson, N.J.
Erlenborn	Martin, N.C.	Thomson, Wis.
Esch	Mathias, Calif.	Thone
Eshleman	Matsunaga	Thornton
Evans, Colo.	Mayne	Tiernan
Fascell	Mazzoli	Traxler
	Meeds	Treen
	Melcher	Udall
	Metcalfe	
	Mezvinsky	

Van Deerlin	Whitten	Wyman
Vander Jagt	Widnall	Yates
Vander Veen	Wiggins	Yatron
Vanik	Wilson, Bob	Young, Alaska
Veysey	Wilson, Charles H., Calif.	Young, Fla.
Vigorito		Young, Ga.
Waggonner		Young, Ill.
Waldie	Wilson, Charles, Tex.	Young, S.C.
Walsh		Young, Tex.
Wampler	Winn	Zablocki
Ware	Wolff	Zion
Whalen	Wright	Zwach
White	Wydler	

NAYS—37

Abzug	Gross	Randall
Ashley	Hanrahan	Riegle
Aspin	Harrington	Roybal
Broyhill, N.C.	Hays	Schroeder
Burlison, Mo.	Hicks	Shoup
Carter	Holtzman	Shuster
Conable	Hutchinson	Slack
Conyers	Ichord	Snyder
Crane	Landgrebe	Studds
Dellums	Latta	Symms
Fraser	McCollister	Taylor, Mo.
Froehlich	Miller	
Goodling	Obey	

NOT VOTING—55

Abdnor	Haley	Rooney, Pa.
Alexander	Hanna	Rose
Biaggi	Hansen, Wash.	Ruppe
Blackburn	Holifield	Shipley
Blatnik	Hosmer	Sisk
Bowen	Johnson, Pa.	Steiger, Wis.
Brown, Mich.	Kazen	Stephens
Buchanan	Lujan	Stokes
Carey, N.Y.	McSpadden	Stubblefield
Cochran	Mathis, Ga.	Sullivan
Conlan	Milford	Talcott
Davis, S.C.	Mills	Towell, Nev.
Dellenback	Montgomery	Ullman
Dorn	Myers	Whitehurst
Evins, Tenn.	Patman	Williams
Flynt	Pickle	Wyatt
Frenzel	Rangel	Wylie
Gettys	Reid	
Gray	Rooney, N.Y.	

So the bill was passed.

The Clerk announced the following pairs:

Mr. Holifield with Mr. Blatnik.
Mr. Rooney of Pennsylvania with Mr. Mathis of Georgia.
Mr. Shipley with Mr. Mills.
Mr. Rooney of New York with Mr. Stephens.
Mrs. Sullivan with Mr. Abdnor.
Mr. Stubblefield with Mr. Gettys.
Mr. Kazen with Mr. Johnson of Pennsylvania.
Mr. Davis of South Carolina with Mr. Blackburn.
Mr. Haley with Mr. Myers.
Mr. Biaggi with Mr. Brown of Michigan.
Mr. Alexander with Mr. Ruppe.
Mr. Rose with Mr. Frenzel.
Mr. Sisk with Mr. Conlan.
Mr. Rangel with Mr. Gray.
Mr. Reid with Mr. Stokes.
Mr. Bowen with Mr. Steiger of Wisconsin.
Mr. Carey of New York with Mr. Buchanan.
Mr. Evins of Tennessee with Mr. Lujan.
Mr. McSpadden with Mr. Towell of Nevada.
Mr. Pickle with Mr. Talcott.
Mr. Patman with Mr. Coughlin.
Mr. Montgomery with Mr. Wyatt.
Mrs. Hansen of Washington with Mr. Dellenback.
Mr. Dorn with Mr. Whitehurst.
Mr. Flynt with Mr. Wylie.
Mr. Hanna with Mr. Williams.
Mr. Milford with Mr. Ullman.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

PERMISSION FOR COMMITTEE ON RULES TO FILE CERTAIN PRIVILEGED REPORTS

Mr. BOLLING. Mr. Speaker, I ask unanimous consent that the Committee on Rules may have until midnight tonight to file certain privileged reports.

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

There was no objection.

AUTHORIZING APPROPRIATIONS TO THE NATIONAL SCIENCE FOUNDATION

Mr. TEAGUE. 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. 13999) to authorize appropriations for activities of the National Science Foundation, and for other purposes.

The SPEAKER. The question is on the motion offered by the gentleman from Texas.

The motion was agreed to.

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 consideration of the bill H.R. 13999, with Mr. HANLEY in the chair.

The Clerk read the title of the bill.

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

The CHAIRMAN (Mr. HANLEY). Under the rule, the gentleman from Texas (Mr. TEAGUE) will be recognized for 30 minutes, and the gentleman from Ohio (Mr. MOSHER) will be recognized for 30 minutes.

The Chair recognizes the gentleman from Texas (Mr. TEAGUE).

Mr. TEAGUE. Mr. Chairman, the administration's bill requesting authorization for the National Science Foundation for fiscal year 1975 was H.R. 12816, which I introduced February 13. That bill requested a lump sum of $783.2 million in new obligational funds, plus $5 million in excess foreign currencies to be used in support of NSF research abroad.

The total request was thus $788.2 million. This compares with total obligations for fiscal year 1974 of $646.3 million, about $67 million of which represented prior year funds brought forward.

The bill before us, H.R. 13999, is a clean bill reported without dissent from the full committee on April 4. This bill totals up to the same amount requested by the administration—that is, $788.2 million. However, the committee made a number of important changes which may be summarized as follows:

First, the committee line-itemed the budget according to the 13 major categories requested for the Foundation. This has been the policy of the committee since fiscal year 1972.

Second, the committee increased the requests in the three categories where they had been reduced from last year, the support for science education categories. The total of the increases in these three categories amounted to $15 million. The committee also increased science information activities by $3.3 million and the R. & D. incentives program, under the national and special research programs, by $1.2 million. This made a total increase of $19.5 million.

Third, the committee reduced the amount requested by a similar amount—$19.5 million. We cut the scentific research project support by $9.7 million and the research applied to national needs—RANN—program by $9.8 million. I would like to note that both of these categories received substantial increases from last year, so we are confident that these cuts are warranted.

Fourth, the committee placed certain floors under a number of the programs, particularly those in science education where it wished to make sure that these funds would remain available for the purpose stipulated.

Fifth, the committee included a provision which requires the Foundation to coordinate its solar energy research and technology program—a part of the RANN program—with NASA so that the maximum advantage can be taken of the special capabilities of each agency.

Mr. Chairman, let me now go back and describe in detail the budget actions our committee took on this bill—and why we took them.

The changes to the budget request submitted by the administration were as follows:

CHANGES IN SECTION 1

A line item budget is recommended with totals for each category as shown in the table on page 120 of the report. This mode of authorization has been followed by the committee since fiscal year 1972.

INCREASES

The $19.5 million by which the committee increased the administration request is distributed as follows:

National and special research programs

Administration request	$84,800,000
Committee increase	1,200,000
Committee recommendation	86,000,000

Category 2.—An increase of $1.2 million which would be applied to the experimental R. & D. incentives program over and above the $1 million requested. NSF requested $11 million for this important technology transfer activity but the amount was reduced to $1 million by OMB. The committee believes that the addition indicated will provide a minimal level of activity to prevent complete deterioration of the program.

Science information activities

Administration request	$5,000,000
Committee increase	3,300,000
Committee recommendation	8,300,000

Category 4.—An increase of $3.3 million which would restore this program to the level originally requested of OMB by the Foundation—and also permit an increase of $300,000 over last year. The program needs emphasis, development, and coordination with other similar Federal efforts in order to become broadly effective.

Institutional improvement for science

Administration request	$3,000,000
Committee increase	7,000,000
Committee recommendation	10,000,000

Category 8.—An increase of $7 million which would restore the institutional grants for science program to last year's level. This program is of great importance to the Nation's colleges and universities since it is one of the very few in

existence which is devoted essentially to building up and improving the entire science department of those institutions which qualify for support. This program operated last year at the $7 million level but the Foundation had planned to eliminate it for fiscal year 1975. The committee is strongly of the opinion that the program should be neither dropped nor reduced.

Graduate student support

Administration request	$12,700,000
Committee increase	500,000
Committee recommendation	13,200,000

Category 9.—An increase of $500,000 which would restore the $300,000 cut from the 1974 level of this program and provide a small incremental increase of $200,000. The committee has been a strong advocate of the graduate student support program, although that program has consistently been reduced over the past 4 or 5 years. The committee believes that, particularly in view of the general scarcity of graduate student support and of the highly trained manpower it provides, this program should recede no further and that the $200,000 increase will barely make up for inflationary factors.

Science education improvement

Administration request	$61,400,000
Committee increase	7,500,000
Committee recommendation	68,900,000

Category 10.—An increase of $7.5 million to bolster the only major science education program which the Foundation retains. This program is designed to provide improvement in education methods and curricula, as well as assistance to students from the elementary level up to the postgraduate. The increase contemplated would restore this program to the 1974 level and includes $1.4 million to compensate for funds diverted to technician training and aid to scholars from abroad in energy-related study.

DECREASES

The $19.5 million by which the committee decreased the administration request is distributed as follows:

Scientific research project support

Administration request	$363,700,000
Committee decrease	9,700,000
Committee recommendation	354,000,000

Category 1.—Scientific research project support, the largest single component of the Foundation's overall program, was increased from $291.3 million in fiscal year 1974 obligations to $363.7 million for fiscal year 1975: A 24.8 percent increase. This occurred although the Foundation had requested of OMB an increase of only $41.7 million to a level of $333 million: A 12.2 percent increase. The committee action has placed the 1975 level for this category at $354 million.

Research applied to national needs

Administration request	$148,900,000
Committee decrease	9,800,000
Committee recommendation	139,100,000

Category 6.—Research Applied to National Needs (RANN), the second largest component in the Foundation's budget, was increased from $75.1 million in fiscal year 1974 to $148.9 million in fiscal year 1975: an increase of 98.2 percent. This occurred although the Foundation had requested of OMB an increase of only $6.9 million to a level of $82 million: an increase of 8.4 percent. The committee action has placed the 1975 level for this category at $139.1 million.

The reason for the decreases in these areas is to keep the total authorization within the amount requested by the administration. The categories chosen for reduction were those which had received, by far, the largest budget request increases over fiscal year 1974, both in dollars and in percentages.

It should be noted that both research projects and the RANN program received dollar increases of approximately $73 million. Under the change which the committee has made in H.R. 13999, research projects will still receive an increase of just under $63 million—$21 million more than it requested from OMB—which amounts to a boost of 21.6 percent. For RANN, the change made by the committee will still mean an increase of $64 million—or $57 million more than was requested of OMB originally—which amounts to a boost of 85 percent.

It is important, however, that it be understood that the chief reason for the large increases in both categories was to stimulate and accelerate the national energy R. & D. program. The committee is of the opinion that the small cuts made will in no way hamper the overall energy R. & D. effort.

LIMITATIONS IN SECTION 2

Subsections (a), (b), and (c) placed floors under the authorized amount in each of the education categories described in section 1, that is, categories 8, 9, and 10 shown in the table. These provisions mean that not less than the amount stipulated shall remain available for such purposes. They have been included to assure that funds in these areas shall not be transferred to or merged with other programs.

Subsection (d) places a similar floor under the experimental R. & D. incentives program contained in category 2 in accordance with the same rationale.

Subsection (e) places a floor of $2 million for fire research in the RANN program. The reason for this requirement is to assure that the scientific and technological research capability in the field of fire research continues as a part of the RANN program, category 6.

Subsection (f) places a floor of $1.5 million under the science faculty fellowship program in category 10. Last year the Committee on Science and Astronautics, as well as the Senate committee, stipulated that this modest program to assist faculty fellows should be maintained. In spite of that directive, the Foundation has planned in its 1975 budget to merge the fellowship program into the research participation program. While the two programs may reasonably be jointly administered, there are marked differences between them and the committee is of the opinion that the faculty fellowship program should not lose its identity. This floor does not involve any addition or deletion of funds; it simply allocates the $2.5 million scheduled for research participation into two programs so as to reinstate the fellowship program.

Subsections (g) and (h) place a floor of $3.8 million and $2 million under student programs and high school student projects, respectively, also in category 10. These floors have been established to assure that funding for lower-level science education programs shall not be merged with other programs or only partially funded.

It must be emphasized that all of the limitations which are directed toward making sure that the Foundation does not slight its programs for science education stem from a long-standing interest which the committee has had in this field—and from its conviction that without adequate manpower—both in numbers and in training, our best efforts in research and development in every area will prove ineffectual. The committee notes with grave concern that support of science education in the Foundation, in spite of numerous congressional warnings, has been steadily waning over most of the past decade. In fiscal year 1970, for example, support of science education amounted to 36 percent of the total Foundation budget. That support now stands at 9.7 percent. Although the overall budget for the Foundation has increased dramatically during the same period, the actual number of dollars for science education has dropped by more than 47 percent—from $165 million in fiscal year 1970 to a request of $87 million in fiscal year 1975. If inflationary factors are taken into account this falloff is much greater.

It is further a glaring indication of the attitude of the Foundation and of OMB that the major areas which both sought to reduce in the request for the current budget were the three categories involving science education support. The committee trusts that the Foundation will keep these observations in mind in the future.

Subsection (i) is designed to assure that, in the conduct of its solar energy research and technology program in category 6, the Foundation coordinates that program with NASA in such a way that maximum advantage will be taken of the special capabilities of each agency. It requires that the two agencies report on their plans, schedules and other findings to this committee and its counterpart in the Senate not later than 90 days after this act becomes effective. It further provides that where it is found that NASA can appropriately carry out parts of this program, particularly in the engineering and demonstration phases, it shall be so assigned and funded through NSF.

Mr. Chairman, the following table is a succinct graphic summary of the bill's history to this point:

COMPARISON OF FISCAL YEAR 1974 WITH FISCAL YEAR 1975, NSF REQUEST AND COMMITTEE ACTIONS

[In millions of dollars]

Categories	(1) Fiscal year 1974 obligations	Fiscal year 1975 requests (2) Request to Congress	(3) Change from 1974	(4) Percent change from 1974	Fiscal year 1975 committee action (5) Approved	(6) Change from request
1. Scientific research project support	291.3	363.7	+72.4	+24.8	354.0	−9.7
2. National and special research programs	91.6	84.8	−6.8	−7.4	86.0	+1.2
3. National research centers	42.5	52.5	+10.0	+23.5	52.5	0
4. Science information activities	8.0	5.0	−3.0	−37.5	8.3	+3.3
5. International cooperative activities	6.4	8.0	+1.6	+25.0	8.0	0
6. Research applied to national needs	75.1	148.9	+73.8	+98.2	139.1	−9.8
7. Intergovernmental science program	1.0	1.0	0	0	1.0	0
8. Institutional improvement for science	10.0	3.0	−7.0	−70.0	10.0	+7.0
9. Graduate student support	13.0	12.7	−.3	−2.3	13.2	+.5
10. Science education improvement	67.5	61.4	−6.1	−9.0	68.9	+7.5
11. Planning and policy studies	2.6	2.7	+.1	+3.8	2.7	0
12. Program development and management	31.6	39.5	+7.9	+25.0	39.5	0
Subtotal	640.6	783.2	+142.6	+22.2	783.2	0
13. Special foreign currency program	5.6	5.0	−.6	−1.07	5.0	0
Total, NSF	[1] 646.3	[2] 788.2	+142.0	+21.9	788.2	0

[1] The fiscal year 1974 total of new funds obligated is $577,400,000—while the total shown is $646,300,000. This is due to the following: (1) $64,400,000 in prior year regular funds brought forward; (2) $1,860,000 added by a pay increase supplemental; (3) $2,660,000 in prior year excess foreign currencies brought forward.

[2] Includes $116,100,000 for energy related budget amendment.

Mr. Chairman, I yield 10 minutes to the gentleman from Georgia (Mr. DAVIS), the chairman of the subcommittee that worked on this bill.

Mr. DAVIS of Georgia. Mr. Chairman, I rise to present to the Committee the bill H.R. 11999, the annual authorization for the National Science Foundation for fiscal year 1975, and recommend its adoption by the House.

Mr. Chairman, H.R. 13999 would authorize $763,200,000 for the National Science Foundation for fiscal year 1975, plus $5 million in excess foreign currency. The total authorization is thus $788.2 million. The amount authorized is the same as they requested in the President's budget, and represents an increase in the Foundation's budget over last year of $141.9 million. The bulk of the increase is associated with new initiatives in energy-related research and development.

Although the dollar amount is identical to that proposed in the administration's bill, this clean bill before us reflects some changes from the administration request which were deemed advisable by the Committee on Science and Astronautics. In making such changes, the committee added $19.5 million to the administration's request in five of the program categories and reduced the request by $19.5 million in two other categories. I shall describe the nature of these actions subsequently, but first I should like to highlight the major activities of the Foundation and to generally characterize the objectives of the 12 program areas itemized in the authorization bill. Continuing a practice first adopted in fiscal year 1972, the committee has approved a line item budget for the NSF.

The committee held 5 days of hearings on the authorization, including a full session with non-Government witnesses. In preparing the authorization bill, therefore, the committee had the benefit of testimony from academic and scientific professional communities as well as from NSF officials.

The largest single budget category is that of scientific research project support which has been authorized at a level of $354,000,000. The broad objectives of this program involve strengthening the scientific research potential of the Nation, promoting the progress of science, and helping to provide the broad base of scientific understanding needed to confront pressing national problems. Areas encompassed by the research project program include: Atmospheric sciences, earth sciences, oceanography, biological sciences, physics, chemistry, astronomy, mathematical sciences, social sciences, engineering, materials research, and computing activities. However, the fiscal year 1975 program will emphasize fundamental research directed toward the solution of energy-related problems. While the Scientific Research Project Support activity traditionally supports research related to many objectives, a more selective approach will be used in fiscal year 1975 to orient some of the research to those inquiries evaluated as most likely to have a potential impact on or promise for energy resource discovery, production, conservation, and use. Parallel research will be conducted on environmental effects.

Presently, the major portion of Scientific Research Project Support funds are concentrated in academic institutions and in several nonprofit research institutions, functioning essentially as a part of the academic science community. Most of the ongoing research is basic in character, although a few projects of a more applied nature are receiving support.

Another major program area is the National and Special Research Programs which would be authorized $86,000,000 for fiscal year 1975 operations. This program encompasses a broad range of activities and scientific disciplines. The projects which it supports are coordinated efforts, each designed to achieve specific objectives and each involving extensive participation by program staff in planning, management, and coordination. Many of the activities include a logistic component, and several involve some element of international cooperation.

Funding for the National Research Centers is recommended at a level of $52,500,000. These centers are supported by the National Science Foundation to meet national needs for advanced research in scientific areas requiring specialized instrumentation and equipment beyond the financial and management capabilities of individual institutions. These facilities are available for use by all qualified scientists and are managed and operated by nonprofit corporations or universities under contract to the Foundation.

Science Information Activities have been authorized $8,300,000 to pursue the objective of promoting the dissemination of scientific information and of helping scientists and others obtain and use the results of worldwide scientific research. The Science Information program supports activities whose results can be applied to improve and extend science information services provided by Government agencies, scientific societies, colleges and universities, and private organizations.

International Cooperative Science Activities, recommended at a level of $8 million, provides support for U.S. scientists who participate in research and exchange activities with scientists of other nations; for those who plan, organize, and participate in the activities of international scientific unions and organizations; for those who attend and present reports on their scientific research at international meetings; and for those scientists who visit and conduct research in foreign laboratories.

The committee has authorized $139.1 million for Research Applied to National Needs (RANN). This program is designed to focus U.S. scientific and technical resources on selected problems of

national importance, with the objective of contributing to their practical solution. An important purpose of the RANN program is to reduce the lead time between scientific discoveries and their application in meeting national needs. The RANN program currently emphasizes three principal problem areas through its support activities—energy, the environment and productivity.

The Intergovernmental Science Program has been authorized $1 million for its fiscal year 1975 activities. The mission of this program is to aid State and local governments in increasing their capability to utilize science and technology effectively.

Funds approved for Institutional Improvement for Science total $10 million. This program provides annual grants for discretionary use by U.S. colleges and universities. Such grants are intended to help maintain quality in academic science at those institutions that have demonstrated strength in this area.

The authorization for Graduate Students Support has been approved at $13.2 million. The funds are to be utilized for graduate fellowships, graduate traineeships and postdoctorals. The primary objective of graduate students support is to assure that a modest number of the Nation's most talented graduate students in the sciences obtain the education necessary to provide the high level research capabilities needed by our modern society. Another more specific objective is the training of scientific and engineering manpower to help meet the Nation's energy problems.

Funds totaling $68,900,000 have been authorized for the category of science education improvement. The major objectives of this program are: To help assure the variety, flexibility, and quality of the Nation's scientific and technological manpower; to provide broad-based science education to promote understanding of public issues involving science and technology, and to enable individuals to apply scientific and technical resources in situations which are not specifically science/technology-oriented; to improve science education by employing new education techniques; and finally, to find means by which the Foundation's science education improvement activity can be made more effective.

The committee has approved a sum of $2,700,000 for planning and policy studies. This activity is divided into two program elements: First, studies of science resources and, second, science planning and policy analysis and program evaluation studies. Collectively, these two program elements aim at identifying science policy issues; building sound data and analytical bases from which to derive effective science policies; providing information for the Foundation and the President's Science Adviser for establishing priorities and programs for national science activities; and providing data on national manpower and R. & D. resources.

Program Development and Management, comprising the final budget category, has been authorized a sum of $39,500,000. This activity provides for the operation, support, management and direction of all NSF programs and activities previously described, and includes all necessary funds to develop, manage, and coordinate these program activities. It also includes salaries and operational expenses of all NSF employees.

A separate section of the bill authorizes $5,000,000 for the special foreign currency program. This activity utilizes U.S.-owned excess currencies in certain foreign countries to support cooperative scientific projects, seminars, and travel of U.S. and foreign scientists involved in mutually beneficial efforts. The Foundation awards grants to both U.S. and foreign institutions and scientists.

I should now like to describe how the bill before us today, H.R. 13999, differs from the administration's authorization bill. As I mentioned at the outset of my remarks, the committee added $19.5 million to the administration's request in five categories and reduced the request by $19.5 million in two other categories. The specific budget actions taken by the committee constitute the following changes in the administration bill.

Five line item categories were increased by committee action.

The category of national and special research programs was increased by $1.2 million to be applied to the R. & D. incentives program over and above the $1 million requested for that activity; $11 million had been requested by the NSF for this program, but the amount was reduced to $1 million by the OMB. The committee determined that an increase, bringing the program budget to $2.2 million, would allow for a minimal level of activity for this important technology transfer effort, and would prevent complete deterioration of the program.

An increase of $3.3 million for science information activities was approved by the committee. This increase would restore the program to the level originally requested of OMB by the Foundation, and would permit an increase of $300,000 over last year for a program which, although far from perfect, needs emphasis and development.

The third budget category increased by committee action is that of institutional improvement for science. The approved increase of $7 million would restore the institutional grants for science to last year's level. The committee recognizes the importance of this program to the development of the Nation's colleges and universities, since it is one of a very few programs devoted essentially to building up and improving the entire science departments of those institutions which qualify for support. This program operated last year at the $7 million level, but the Foundation planned to eliminate it for fiscal year 1975. The committee feels strongly that the program should be neither eliminated nor reduced.

An increase of $500,000 was approved for graduate students support activities. This would restore the $300,000 drop from the 1974 level of this program and provide a small incremental increase of $200,000. Although the program has been reduced steadily over the past several years, the committee has long been a strong supporter of its objectives and activities. In view of the general scarcity of graduate student support and of the shortage of the highly trained manpower which it provides, the committee believes that the program should be continued.

The final category which was increased by committee action is that of science education improvement. An increase of $7.5 million was approved in order to bolster the only major science education program which the Foundation retains. This program is designed to help improve educational methods and curricula and to provide assistance to students from the elementary level to post-graduate. The increase would restore this program to the 1974 level and would provide $1.4 million to compensate for funds diverted to technical training and aid to scholars from abroad in energy-related study.

Budget decreases recommended by the committee affect two line item categories. Committee actions reduce the authorization for scientific research project support by $9.7 million, and that for research applied to national needs by $9.8 million. The reason for the recommended decreases is to keep the total authorization within the amount requested by the administration. The categories selected for reduction were those which had received, by far, the largest increases over fiscal year 1974, both in dollars and percentages.

Scientific research project support, the largest single component of the Foundation's overall program, was increased from $291.3 million in fiscal year 1974 to $363.7 million for fiscal year 1975; a 24.8 percent increase. This occurred although the Foundation had requested an increase of only $41.7 million (12.2 percent) to bring it to a level of $233 million. The committee recommendation authorizes the sum of $354 million.

Research applied to national needs (RANN), the second largest item in the Foundation's budget, was increased from $75.1 million in fiscal year 1974 to $148.9 million for fiscal year 1975—a 98.2 percent increase. The Foundation's original request to the OMB constituted only an 8-percent increase which would have added $6.9 million to the fiscal year 1974 obligation and would have raised the program to a level of $82 million for fiscal year 1975. The committee's action places the RANN program budget at $139.1 million for fiscal year 1975.

I should like to note that in accordance with the administration's budget proposal both project research and RANN programs each would receive approximately $73 million increases. The committee recommendations would provide an increase of $63 million for project research—$23 million more than the Foundation had originally requested of OMB, and for RANN, committee changes will still allow for an increase of $64 million—or $57 million more than was requested of OMB and constituting a boost of 85 percent.

It is important to note that the chief reason for the large increase in both of these line item categories is to stimulate and accelerate the national energy R. & D. program. Had it not been for the urgency of this situation, the committee might have been ready to cut more deeply into these projects. I should point

out that the committee is of the opinion that the small cuts made will in no way hamper the overall energy R. & D. effort which, while undoubtedly needing much of the additional funding it is receiving from many agencies, is not likely to be solved by dollars alone.

Mr. Chairman, I would just like to highlight several other aspects of the authorization bill before concluding my remarks. Section 2 places floors under several of the line item categories previously described. Collectively these floors, which I shall not take time to enumerate specifically, are intended to assure that the Foundation does not slight any of the programs which relate to the area of science education. These floors preclude the opportunity for funds to be transferred from education support programs. These actions stem from a longstanding interest which the committee has had in science education programs, and from the committee's conviction that without adequate manpower both in numbers and in training, our best efforts in research and development will prove ineffectual. The committee notes with grave concern that support for science education has waned over the past decade. In 1970, 31 percent of the NSF budget was directed to science education. In 1972, that percentage had gone down to 19 percent, and in the proposed budget for fiscal year 1975 only 10 percent of the overall budget is intended for science education activities. The committee encourages the Foundation to take note of this serious trend and wishes to emphasize its interest in seeing that the balance between science education and research support is redressed.

Mr. Chairman, this is a reasonable bill which will provide the funds necessary to keep American science and technology in the forefront, and which will provide the necessary emphasis on the field of energy research without which we cannot meet the objective of reducing our dependence on foreign sources of energy. It was reported unanimously by the Committee on Science and Astronautics. I urge its favorable consideration and adoption.

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

Mr. DAVIS of Georgia. I am glad to yield to the gentleman from Iowa.

Mr. GROSS. Mr. Chairman, I would ask the gentleman from Georgia as to whether it was the National Science Foundation that was carrying on the study of the wild boar in Pakistan, and also the study as to the difference in the rhythms of catfish raised in India and those in Alabama, or some other Southern State?

Mr. DAVIS of Georgia. I think in the past such studies have been conducted.

Mr. GROSS. Are those studies continuing?

Mr. DAVIS of Georgia. Not to my knowledge. I do not think so.

Mr. GROSS. I would hope we are not increasing this bill by $200 million over last year for the purpose of carrying on studies of that kind.

Mr. DAVIS of Georgia. May I say to the gentleman from Iowa that the National Science Foundation's budget was increased last year. It is increased again this year. The real reason for the increases can be traced to the so-called Mansfield amendment which prohibited the Department of Defense from engaging in research of a basic nature where you could not be sure what the research would produce.

That, by the way, has happened many times in the history of science.

For example, penicillin was discovered quite as a matter of serendipity. The person who discovered penicillin had no idea it would turn out to be a miracle drug, but it did.

That is the value of basic research. It has always paid off, but you cannot always say what the result will be. Now, when the Mansfield amendment was applied to the Department of Defense, saying that they had to discontinue their basic research, then the Department of Defense was forced in effect to have a lot of their basic research activities carried on by the National Science Foundation which was created in 1951 for the purpose of conducting basic research.

When that occurred, a sort of a domino effect took place between the other agencies, and they got to worrying what they were going to say to the authorizing committees and the appropriating committees when they were asked as to what type of discovery they expected this year, and they decided that they would cut basic research activities out of their budget and send it to the NSF budget, and ask them to do it.

That has caused the NSF budget to increase.

Mr. GROSS. Could there be any money in this bill for the promotion of the metric system?

Mr. DAVIS of Georgia. There is no money in this bill for that at all.

Mr. GROSS. I am delighted to hear it.

Mr. DAVIS of Georgia. However, I might say that most scientists, most medical people, pharmacists, doctors, and many, many other people, to name but a few, do use the metric system.

I would also like to point out that in a treaty entered into by this country, I think in the year 1887, that the inch was defined as being 2.54 centimeters, so that in order to get the definition of an inch you have to go to the metric system.

Mr. GROSS. I thank the gentleman from Georgia for his learned explanation of the metric system.

Mr. DAVIS of Georgia. The gentleman from Iowa is entirely welcome.

Mr. GROSS. I am not at all convinced, but I would like to hear more.

Mr. DAVIS of Georgia. I will see that the gentleman does hear more about it.

Mr. TEAGUE. Mr. Chairman, I yield 1 additional minute to the gentleman from Georgia.

Mr. Chairman, will the gentleman yield?

Mr. DAVIS of Georgia. I yield to the gentleman from Texas.

Mr. TEAGUE. I thank the gentleman for yielding.

I should just like to be sure that the gentleman from Iowa (Mr. GROSS) knows that the metric bill will be brought up and considered on the floor before long, as I am sure we will have adequate discussion and go into it, and the House can then vote on it.

Mr. DAVIS of Georgia. I should like to respond to the remarks of my chairman, the gentleman from Texas (Mr. TEAGUE).

Mr. GROSS well knows that I have been working on him personally for about 5 years with negligible results.

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

Mr. DAVIS of Georgia. I yield to the gentleman from Iowa.

Mr. GROSS. I thank the gentleman for yielding.

That is why I have been interested in the alligators in the Okefenokee Swamp.

Mr. DAVIS of Georgia. I am sure Mr. GROSS is intimating that if I push the metric bill very much, I will not be back in Congress but that I will be swallowed up by the alligators.

Mr. MOSHER. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, it is very significant that the National Science Foundation attracts—and I enthusiastically assert that it certainly merits—an almost unique degree of united, bipartisan support in both Houses of the Congress.

I am confident that NSF's authorization for fiscal year 1975, as proposed here today by the Science Committee, deserves overwhelming support by the Members of this House.

I can assure the Members that the minority side of the Science Committee is in full support of this authorization bill.

The total dollar amount we are recommending is exactly the same NSF budget as requested by the administration; but within that total amount our authorization bill makes some relatively minor modifications in the various categories.

Our changes tend to emphasize a very strong, carefully considered, longtime conviction in the committee that NSF should not cut back on its traditional support of programs which support science education.

We clearly recognize today's urgent need for increased emphasis on energy related science, but we argue that it must not be at the expense of science education. We believe strong science education programs are indeed an imperative necessity as supportive of energy related research, and of all significant research.

Mr. Chairman, I cannot overemphasize the importance of the role of the National Science Foundation in maintaining our Nation's scientific strength. In today's dynamic, complex, interdependent society, suffering from so many unsolved problems, strong support of basic research and science education is crucially imperative. It is through the vigorous search for useful, new knowledge that we will best provide the means to address effectively our domestic and global problems.

I congratulate NSF for the manner in

which it inspires and maintains the health and the vigor of our scientific establishment.

For fiscal year 1975, the Science Committee is proposing a number of changes in the administration's requested budget for NSF. These changes are primarily in the very important science education categories. However, these increases recommended for Science Education, experimental R. & D. incentives, and the science information activities programs, are matched dollar for dollar by corresponding reductions in other program categories.

I repeat, the total budget approved by the Science Committee, therefore, is identical to that submitted by the administration, $788.2 million.

That figure represents an increase of $142 million over the fiscal year 1974 program level. And it is very significant that $138 million of that $142 million increase is for support of the accelerated energy R. & D. programs, aimed at the goal of energy self-sufficiency for our Nation. The bulk of this new energy-related funding is directed to the two areas of basic research and program oriented research.

We must also recognize however that the energy problem, and for that matter any science or technology-related problem, cannot be solved by money alone. It is essential that trained and educated manpower be provided as one key to the successful resolution of all such problems. This is particularly so in the energy field, because of the emphasis it places on the more advanced and esoteric academic disciplines.

An urgent concern of the committee, therefore, was that administration proposed increases for energy related research in the RANN applied research program, as well as budget additions in basic research in general, should be supported with continuing strength also in the science education categories. For this reason, the committee felt it necessary to add $15 million to three science education line items—institutional improvement for science; graduate student support; and science education improvement. We strongly objected to administration plans that these programs be cut.

The institutional improvement for science program, which we propose to increase by $7 million above the budget request, is designed to enhance the effectiveness of Federal research moneys by supporting activities directed to the development of innovative organizational and managerial procedures in Federal contract and grant administration.

Thus, funds from this program encourage universities on their own initiatives to appraise their current management situations, to develop innovative methods and procedures, and to test and evaluate the effectiveness of the methods and procedures developed. Experience proves the positive, creative, cost effective results of these efforts.

The second addition of funding in the general science education area, $500,000 is directed to the graduate fellowship program. This is the only program—Federal or otherwise—which offers support over such a broad spectrum of sciences in which the fellows are selected in nationwide competition solely on the basis of ability. Thus, the fellows represent the outstanding baccalaureates produced by our colleges and have been characterized in the past by their academic excellence at the universities in which they carry out their graduate training. It provides, with relatively few dollars, a strong encouragement for the most able scientists.

In spite of the outstanding results of this program—plus the strong endorsement of the graduate fellowships activity by both NSF and the scientific community—the OMB has insisted on cutting back that program, for reasons with which our committee cannot accept. Last year, one-half million dollars was cut from the fiscal year 1973 budget and an almost identical cut was proposed for the coming fiscal year. The committee's amendment would restore that $500,000 cut and bring the 1975 program back only to the present level of 1974.

The last of these science education recommendations approved by the committee, will provide for an addition of $7.5 million to the science education improvement program. Again, this addition will serve to restore the effort only to the level of last year's program. I wish it could be more, because I think a greater increase is warranted by the results of past experience and the problem of inflated costs.

I personally feel that this program is one of the most important pursued by NSF. Its major objective is to provide this Nation with an appropriate variety, flexibility, quality, and number of scientifically and technically trained manpower. Thus, in effect we are talking about maintaining sufficient manpower in the "training pipeline" to assure ourselves of the scientific talent needed for our future. No national resource is more important than that.

In summary, the committee felt it important to maintain a tight constraint on the total NSF budget for 1975, we agreed it would be unwise to increase the budget total beyond the administration request. But the committee has accomplished this by the judicious shifting of funding within the total program, so that all increases were matched by corresponding funding reductions. I compliment my colleagues on the Science Committee for preserving the administration requested budget level and I congratulate them as well for the wise emphasis they have given to certain of NSF's higher priority science education programs.

Mr. Chairman, I believe the bill before us today deserves the full support of every Member of the House. The National Science Foundation, in its role of maintaining the health of our basic science research and science education, is of vital importance to this Nation. This legislation has received the unanimous bipartisan endorsement of the members of the Committee on Science and Astronautics and I urge its passage without amendment.

Mr. TEAGUE. Mr. Chairman, I yield 2 minutes to the gentleman from West Virginia (Mr. HECHLER).

Mr. HECHLER of West Virginia. Mr. Chairman, I should like to add my commendation for the gentleman from Texas, the chairman of the full committee, and the gentleman from Ohio (Mr. MOSHER) the ranking minority member, and particularly for the gentleman from Georgia (Mr. DAVIS) for his leadership in bringing out this bill.

The major areas of activity in the Foundation's RANN program—research applied to national needs—are energy, environment, and productivity. The research being supported by RANN at both public and private institutions around the Nation is contributing significantly to the search for answers to increasingly urgent problems in our society. These range from solutions to our energy shortage to how to make municipal government more effective.

Research alone is not the goal of RANN. The title "Research Applied to National Needs" implies the necessity of a connection between the researcher and the user, so that the scientist's output will provide input to decisionmaking on national problems. Hence all RANN research projects must include a detailed utilization plan. On this basis, RANN is establishing strong initiatives for getting its research results into use, and the number of eases in both the private and public sectors where the research has had beneficial consequences is growing all the time.

I would like to give some examples of this research and the uses to which it is being put.

ENERGY

NSF is currently the lead Federal agency for solar energy research. The extremely important RANN program on solar heating and cooling of buildings is providing much new information needed by engineers, architects, and construction contractors. Among other significant results, NSF research support had led to preparation of a new chapter on solar energy design data, to be published this June in the latest edition of the American Society of Heating, Refrigerating, and Air Conditioning Engineers' "Guide to Applications." This publication is widely regarded as the "bible" of the American heating, ventilating, and air-conditioning industry.

In another solar energy project, four public elementary and secondary schools in Virginia, Maryland, Massachusetts, and Minnesota, have had experimental solar heating systems installed with NSF support. Private industry is participating jointly in the project. These experiments are expected to advance the technology for using solar energy for space heating and hot water in school buildings and to provide important information on the cost and feasibility of such solar systems. If these experiments are successful, a significant step will be taken toward making the widespread application of solar heating to schools a practical reality. Already hundreds of schools around the country have offered their facilities for similar experiments.

The flow of RANN research results is not necessarily from the Federal Govern-

ment to non-Federal users. An energy conservation project supported by NSF at the University of Illinois has led to testimony by the scientists before congressional committees on a number of occasions and to the preparation of three special reports for the Departments of Commerce and Labor on energy flow in industry. Their findings have been of interest to nearly 40 separate Federal units, as well as to the Ford Foundation, numerous State agencies, and universities.

ENVIRONMENT

A very interesting area of environmental studies supported by RANN is that of coastal zone management—a matter of great concern to certain State governments. For example, work at the University of Texas in close cooperation with the Governor's office and the State land office has led to three coastal laws concerning coastal zone management. This successful research effort offers a prototype for other coastal States.

Another area of environmental studies is the RANN earthquake engineering program, which has supported some 80 projects. All of these have involved architectural and construction engineers, developers, and enforcers of codes and standards. One extremely interesting project was a study of the reasons for the collapse of Lower Van Norman Dam, which occurred in the February 1971, San Fernando earthquake. The partial collapse of this earthfilled structure came close to releasing 11,000 acre-feet of water and required the evacuation of 80,000 people. The State of California and city of Los Angeles cooperated with the University of California under RANN support in a study to determine the cause of this collapse. Using these results, the California Department of Water Resources is now examining over 1,100 other dams in the State and has decided to reconstruct or reinforce a number of these.

One of the most timely studies spanning the areas of energy and environment is a RANN-supported technology assessment of Outer Continental Shelf oil and gas development. Conducted by the University of Oklahoma, this resulted in a report entitled "Energy Under the Oceans," which has received very wide attention. The Council on Environmental Quality has recommended it in connection with its nationwide hearings on the Outer Continental Shelf, and has used the report in preparing its own conclusions. CEQ has also commissioned the Oklahoma research team to do a similar study of OCS management by the North Sea countries. The U.S. Geological Survey is modifying its public information and leasing policies in accordance with certain recommendations resulting from this subsequent study. Environmental groups, such as the Center for Law and Social Policy, and major oil companies as well have asked the study team to advise and assist them.

PRODUCTIVITY

A project supported by NSF at Case Western Reserve University that has proved most successful has sought to increase productivity in the construction of ship frames. It is concerned with precision in forming cold structural elements into complex forms by means of automatic computer controls. The Maritime Administration participated in the evaluation of the proposal, and two shipbuilding companies served as monitors when the project began. A laboratory-size bending machine was developed and demonstrated, which was so impressive that thus far six American shipyards have expressed an interest in obtaining such a bender. An American equipment manufacturer is now working directly with Case Western Reserve University to design a full-scale bender for commercial use.

In the area of making municipal government more effective and productive, I find a RANN-supported study of franchising problems in cable television especially interesting. This study, done by the RANN-Corp., resulted in a report, "Cable Television: A Handbook for Decision-making," and a series of detailed reports on specialized problems, which have been distributed to local officials and other interested persons. The city manager of Little Rock, Ark., has called these reports "the only professional, factual, unbiased source of information on CATV available to local officials."

These examples indicate some of the enormous strides the RANN program is taking in bringing researchers and users together. The program seeks to use every available means to insure that its research results are put to use. I think this is an exciting and groundbreaking effort that deserves the full support of the Congress.

Mr. MOSHER. Mr. Chairman, I yield 7 minutes to the gentleman from California (Mr. BELL).

Mr. BELL. Mr. Chairman, I rise in support of H.R. 13999, authorizing appropriations to the National Science Foundation for fiscal year 1975. This bill is a sound proposal and merits the support of all of us.

I would like first of all to express my appreciation and as well the commendation of all of us for the very fine work and leadership which has been shown by the chairman of our full committee, the gentleman from Texas (Mr. TEAGUE) and to the chairman of the subcommittee, the gentleman from Georgia (Mr. DAVIS), for his very fine work and astuteness and understanding of the problems. Also, I wish to commend my good friend, the gentleman from Ohio (Mr. MOSHER) for the leadership he has shown and the work he has done.

I believe that the basic and applied research which the current bill supports will set the stage for dividends which we will collect for many years to come.

Today, our energy shortcomings permeate virtually every sector of our economy and daily lives. With the passage of the bill—and my amendment—I hope to see the National Science Foundation leading the way in the search for an expeditious solution to the problem. With its arsenal of talent and resources, the NSF stands ready to meet the problem head on. My amendment would put $5.5 million back into the RANN budget, which is the major energy research budget in the NSF.

The scope of the energy problem is such that there can be no single all-encompassing solution. Rather, the aim is to develop a variety of new energy sources as well as improving the efficiency of our current resources.

The two principal programs within the NSF which contribute most to this effort are scientific research project support (SRPS) and research applied to national needs (RANN). Both of these have been cut almost $10 million each by the committee, making a total cut of approximately $20 million in our energy research.

In SRPS, for example, a detailed understanding of the combustion process in automobile engines is needed in order to extract the maximum amount of energy from automotive fuel as well as to further reduce engine pollutants.

RANN is aimed to producing more immediate results. RANN serves as an important bridge between NSF's basic research programs and the implementation of this research in solving practical problems. It serves to hasten the process of getting laboratory achievements into the overall economy.

One promising area under investigation by RANN is solar energy. Solar energy could provide a nonpolluting, economically acceptable means of heating and cooling our homes. It also can be used to generate electricity. Approximately 25 percent of the energy consumed in the United States is used for heating, cooling, and supplying the hot water need of buildings. Consequently the potential impact of solar energy could be profound. To accomplish this objective, a balanced program of research and subsystems tests will be carried out.

A coordinated effort is underway with the Atomic Energy Commission and the Department of Interior to harness the earth's internal heat. Achievement of geothermal energy production of tens of thousands of megawatts by the middle of the next decade could save at least 1 million barrels of oil daily. The possibility of geothermal energy was realized long ago. Many who have studied the U.S. geothermal resources have assessed its potential favorably with our present oil and gas reserves. NSF can help solve the remaining technical problems impairing its widespread use.

Projects are underway to develop new methods of storing and transporting energy. Advanced battery technology is expected to find use in both automotive propulsion and electric utilities. Superconductivity and magnetics technology applied to electric generating plants could increase efficiency. Likewise, work is in progress to improve our resource exploration and assessment capability. Precise identification of geothermal and fossil fuel reserves will help in planning the distribution of our energy supplies over the long run.

After years of inattention to the looming energy crisis, the Nation needs an accelerated effort in order to resolve the problem. I believe that the current bill will enable the NSF to spearhead the drive toward national self-sufficiency in energy. We must marshall our technology and fashion a comprehensive answer to

the problem. An answer which combines traditional and new energy sources; which balances technological feasibility, cost, social acceptability, and environmental impact.

If we increase the RANN budget by another $5.5 million, while still staying within the budget—as my amendment provides—I believe that the NSF can provide the leadership necessary to substantially aid in the solution to the energy problem. It can provide the vital link in transforming abstract, scientific principles into concrete, everyday benefits such as reasonable power costs, stabilized employment, and the preservation of our high standard of living. And I look to the current bill to provide the NSF with wherewithal to accomplish this mission.

Mr. MOSHER. Mr. Chairman, I yield 5 minutes to the gentleman from Michigan (Mr. ESCH).

Mr. ESCH. Mr. Chairman, I would like to first rise in support of the general bill and to commend the chairman, the gentleman from Texas (Mr. TEAGUE) and especially the chairman of the subcommittee, the gentleman from Georgia (Mr. DAVIS) and the staff who worked diligently in bringing this bill to the floor. In the usual manner they provided detailed scrutiny over the scientific community. Detailed oversight hearings were conducted and I commend them for their effort.

There will be only one or two issues in this bill today. I think perhaps the most important issue I might discuss would be the issue of the prospective amendment that may be presented by the gentleman from California that would, in effect, increase the authorization for RANN, while decreasing a most important authorization, that for institutional support.

I would like for the benefit of the committee to have a clear understanding of the issue. It is absolutely essential that the committee understand that the bill does increase the RANN effort 85 percent over what it was this year. The amendment of the gentleman from California will add an additional $5.5 million to RANN.

Second, it should be emphasized that the amendment of the gentleman from California will decrease the amount of funds available for institutional support programs by a like amount. Why are institutional support programs necessary? Perhaps the most essential reason they are necessary is to provide the very matching funds to come and join with those allocated funds in the RANN budget that the gentleman from California proposes.

As the testimony we have heard throughout the year emphasizes, one of the real problems in the energy field is the problem of proper training of technical people, that is engineers and scientists. Therefore, let us not be deceived that merely RANN projects going on under contract at various institutions will solve the energy problem.

The Members should make sure that they understand that if they vote against the amendment of the gentleman from California, they are not voting against energy. Indeed, they will be supporting a realistic energy program if they reject the amendment of the gentleman from California, because they will be continuing to provide institutional funds at the same level as they are this year.

It is unencumbered institutional funds, and they can be matched with project money coming outside of RANN.

Mr. Chairman, the third point that should be made is that the RANN money does not go merely for matters related to energy. That money is discretionary, and indeed, we do not know at this time what specific proportion of those RANN funds will go to energy-related applied research. So that, by voting for a lesser amount than the Office of Management and Budget suggested, we will be in no way encumbering or endangering our energy effort.

So, it is important for the members of the committee, I think, to realize that if they vote against the gentleman's amendment for the increase of the RANN budget, they will still be voting for an 85-percent increase in RANN over the present year.

Second, if they vote for the amendment, they will be voting to cut out a very essential program delivering funds to our institutions throughout the country which can act in a cooperative program on developing the trained technicians and trained personnel to fight in the energy field. So, when that amendment comes, whether a Member represents a district which has a UCLA in it, or a University of Michigan in it, I would urge them to reject the gentleman's amendment. Let us go ahead with the business of providing a realistic and comprehensive program of both basic and applied research in this field.

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

Mr. ESCH. Mr. Chairman, I yield to the gentleman from California.

Mr. BELL. Mr. Chairman, I thank the gentleman for yielding to me. I wanted to correct a point the gentleman made.

Bear in mind that when we speak of the large increase in RANN, there is a reason for this.

What is the reason? The reason was because we had at one time an energy crisis, a particular energy crisis, which we still have. RANN amount was increased by that 80 percent to take care of the energy problem of this Nation and try to help in solving the energy difficulty. That is the reason for the increase.

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

Mr. MOSHER. Mr. Chairman, I yield 4 additional minutes to the gentleman from Michigan.

Mr. ESCH. Mr. Chairman, I appreciate the gentleman from Ohio giving me this extra time.

Mr. Chairman, it is necessary to recognize that RANN itself last fall did not ask for that increase, but really that was a decision not from the National Science Foundation, but from the administration in trying to put energy there. However, at the same time it should be recognized that this is not the only delivery system for energy research. Let us not be deceived by thinking that if we cut this back, we are really going to cut back on our energy research in the country.

Indeed, it may foster it by providing funds out on a nonencumbered basis to our universities and colleges. I think the other point should be made that there has been information put out in some materials as to the amount of funding for this year in terms of those institutional grants.

The actual funding level for fiscal year 1974 was $10 million and not $3 million. So actually the committee kept the institutional improvement for science program at the same level as in the previous year.

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

Mr. ESCH. I yield to the gentleman from Wisconsin.

Mr. FROEHLICH. Mr. Chairman, I am wondering what is so sacred about the figure of $788.2 million. We are so proud of the fact that the committee equaled in its bill the amount that the administration requested.

I am concerned, because I just spent 9 days with my constituents on their problems. They are concerned over energy.

What is wrong with increasing the energy appropriation to meet the administration's request without any cuts?

Mr. ESCH. Mr. Chairman, I will say to the gentleman that that issue was discussed in the committee. The committee felt very strongly that there should be certain restraints placed in the budget, not only as regards the authorization and the appropriation, but also as it relates to NSF even entering into such a field.

There is a question as to how quickly we can move ahead in any field and put dollars into a program. We know that dollars alone do not produce solutions, especially in scientific fields.

Mr. Chairman, the committee's judgment was that the dollars in science education could probably be spent more wisely than in RANN, and that an additional $5.5 million would not necessarily make or break the country's energy program.

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

Mr. ESCH. I yield to the gentleman from California.

Mr. BELL. Mr. Chairman, I would like to point out that the gentleman has made a very valid point. There is nothing wrong with increasing the amount relating to energy, particularly, I will say to the Members, when we consider today that a very short time ago we were all concerned about energy as the main issue in this land.

I think that within reason we cannot spend too much money in this area.

My amendment will be within the budget; it will not exceed the budget. It will take something away from some of the educational areas, institutional education, for example. Let me point out something further. Institutional education is not the only source of our education either. There is educational training in RANN. So that is taken care of.

Mr. ESCH. Mr. Chairman, I appreciate the gentleman's comments, and I want to answer that point. My time is limited, so I will proceed to answer the gentleman.

The important point is that most of the RANN dollars that are in education are

directed dollars, and what we mete out to our colleges and universities are some unencumbered dollars in order to apply matching training and matching programs for these funds.

Let me emphasize again that this is not the only area of energy we are dealing with, and it is not the only problem.

Mr. TEAGUE. Mr. Chairman, I yield 1 minute to the gentleman from Florida (Mr. FUQUA).

Mr. FUQUA. Mr. Chairman, I, too, rise in support of this important legislation as I feel it provides for a comprehensive program of science and technology support which reflects the need for both basic and applied research efforts on a national level. The authorization levels set forth in the bill agree with the total spending amounts recommended by the President and will contribute greatly to the ability of our Nation's scientists and teachers to contribute to knowledge and enable us to better understand and, thus, respond to the problems confronting us. Environmental concerns, energy technology, basic research in the areas of earth sciences, biological sciences, chemistry, and engineering are all supported by the National Science Foundation.

It is my privilege to represent three institutions of higher education—the University of Florida, the Florida State University, and Florida A. & M. University, all of which have talented and inquisitive scientists participating in NSF research programs. Being well known centers of learning excellence, several areas of NSF support are of special interest to these schools. Scientific research project support, graduate student support and the institutional improvement for science items are essential aspects of the NSF support effort.

In 1974, two-fifths of the total Federal effort in basic scientific research is made up of National Science Foundation's scientific research project support, the largest single component of the Foundations' overall program. The committee has placed this authorization level at $354 million. This program will support the continued extension of a fundamental scientific knowledge base from which to draw for social, economic, and technological advances. Basic research of this nature is, of course, carried on predominately at universities.

The need for scientific manpower is great indeed and this manpower pool is provided through various graduate student support programs, including that of the National Science Foundation. The committee has proposed to increase the President's request for graduate student spending by $500,000. This would bring graduate student spending just over the fiscal year 1974 level which means that the spending level will just meet inflationary factors. Because of the committee's concern about declining support for this program, it has placed a floor under this amount and would require expenditures of at least this amount. Certainly, the graduate student item is of very high priority and must be provided adequate support.

Finally, another program of high priority was jeopardized due to lack of administration support and the committee has recommended strongly that it continue to receive support. Accordingly, the committee has increased the institutional improvement for science item by $7 million to restore the institutional grants for science program to last year's level. Development and strengthening of outstanding science departments is a primary mission of this program support and has been utilized effectively by the University of Florida. In an exchange of correspondence with the graduate dean of the University of Florida, I learned of the important uses to which institutional improvement for science funds are put by that school. In order for the Members to better understand the importance of this budget item, I include Dr. Harry Sisler's letter at this point for the information of the Members:

UNIVERSITY OF FLORIDA,
Gainesville, March 27, 1974.

Hon. DON FUQUA,
Rayburn House Office Building,
Washington, D.C.

DEAR DON: Thank you for your letter of March 12, 1974, in which you share my concern about the proposed National Science Foundation Budget reduction of approximately seven million dollars for the Institutional Improvement for Science Program.

In response to your question regarding the manner in which the University of Florida has utilized these funds the following information may be of use to you. Approximately 82% of these funds are awarded by the University-wide Research Council, which is appointed by the President and is chaired by the Dean of the Graduate School. Awards are made to academic departments for the purchase of research equipment, scholarly books, or other research materials of a capital nature. The awards are made on a highly competitive basis through research proposals submitted by individual faculty members to the Graduate School. These applications are rated individually by members of a Faculty Screening Committee which recommends a list in order of priority to the Graduate Dean and the Research Council for consideration.

The remaining 18% of the grant funds are distributed by the Graduate Dean to the several College Deans for their use in bringing consultants and visiting lecturers to the campus.

Institutional grant funds are used in these ways for the following reasons. The availability of a central pool of significant research funds, awarded on a highly competitive basis, is important in encouraging the development of highest quality programs in research in Graduate education. It is difficult for a department chairman to distribute his own budgeted funds on a competitive basis, thereby denying support to colleagues with whom he must work closely and harmoniously; thus it is commonly difficult to use departmental funds to appropriately support outstanding programs. Centrally administered, competitive funds on the other hand can be used to award, encourage, and support only the best research, thereby assisting the University in achieving its goal of overall excellence.

The reasons for allocating funds for consultants and lecturers are several fold. First, the University has had a significant number of developing departments and interdisciplinary programs that need short visits of distinguished scholars, including both formal lectures and informal consultation to encourage, inspire, and advise. Second, the geographical position if the state is such that visits do not just "happen" as incidental stopovers; they must be planned, encouraged, and supported. Finally, uncommited funds of this type are the most difficult to obtain from rigidly structured State budgets.

The availability of institutional grant funds has been an important factor in permitting the Graduate Dean to continue to exert influence for the upgrading of quality in the University's programs in sciences. Furthermore, the relative importance of these funds has grown dramatically as other discretionary monies, primarily subvention funds from federal fellowship and traineeship programs, have shrunk toward zero. Faculty need and interest are at an all time high yet available funds are approaching a new low.

Examples of research equipment that was purchased in part with Institutional grant funds last year include a positive ion beam deflecting unit for the two million volt vande-Graff accelerator; and amino acid analyzer for microbiological research; a microphotometer to study fluorescence and absorption of visible light in the biochemical analysis of single cells and groups of cells; a sixteen channel electroencephalogram polygraph for use in the Psychology sleep laboratory; an atomic absorption spectrophotometer for establishing a major research program in geochemistry; and a computer controlled data acquisition system to aid in investigating the environmental effects on plant growth, water use, and environmental quality of Florida's fruit crops.

In summary, Don, the NSF Institutional Improvement for Science Funds are very important to the University of Florida and I would urge you to advocate an increase in this item to at least the ten million dollar FY 1974 level.

Sincerely yours,

HARRY H. SISLER,
Dean.

The National Science Foundation launched major programs in the 1960's to upgrade the quality of the science programs of academic institutions. This included a comprehensive institutional science support program designed to upgrade the quality of university science programs and smaller-scale departmental programs designed to improve the science quality of individual departments. More than 100 institutions in all parts of the Nation participated in these programs, and the total NSF investments in these efforts totaled over $200 million. By fiscal year 1972 these programs had resulted in the upgrading of over 300 science departments.

An important goal of the National Science Foundation is to avoid undue concentration in its science research and education support to insure to the maximum degree that scientific strength is achieved and maintained in all regions of the United States. The evolution of U.S. academic science had resulted in the clustering of institutions having outstanding science capabilities in the Northeast, the Far West, and certain other regions of the Nation. To some degree, this clustering was reinforced by Federal programs of research procurement sponsored at universities during World War II in such fields as radar, nuclear physics, and others.

In 1952, the first full year of National Science Foundation program activities, fewer than 100 academic institutions offered the Ph. D. degree in science, and only 59 academic institutions in 33 States participated in NSF programs that year. By contrast, in fiscal year 1975 more than 950 academic institutions,

several hundred other nonprofit institutions, and industrial and Federal laboratories will participate in NSF-sponsored research. These participants are located in all 50 States. More than 1,000 research scientists and 12,000 graduate students will be involved in these efforts.

The record has been that increased geographic diversity has accompanied increased support of basic research, the fundamental NSF mission. During the past 10 years there has been an increase in the percentage of the total dollar amount of scientific research project support awards going to areas outside of the northeast, north-central, and Pacific regions. The increased geographic distribution of research funds is a measure of an improved research capability in the other regions.

As a member of the Science, Research, and Development Subcommittee of the House Committee on Science and Astronautics, I heartily endorse this measure and urge its adoption.

Mr. MOSHER. Mr. Chairman, I have no further requests for time.

Mr. TEAGUE. Mr. Chairman, I yield 1 minute to the gentleman from Alabama (Mr. FLOWERS).

Mr. FLOWERS. Mr. Chairman, I appreciate the gentleman's yielding me this time.

I, of course, wish to express my support of this bill. I do want once again, however, to voice my opposition to some of the methods by which the National Science Foundation appears to make its grants. I do not want to say that NSF discriminates in favor of one section over the other or in favor of one college over the other, but I will just call the attention of my colleagues to the report of contracts and grants in the last fiscal year. This report clearly indicates that certain institutions in certain States continue to receive the lion's share of the National Science Foundation's grants. It seems to me that NSF has a definite obligation to see that these awards are distributed more equitably across our Nation. I am not persuaded that quality research people and institutions deserving of grants and contracts are located only in those few areas now receiving special attention. In fact, I am otherwise convinced that we have fortunately a widely dispersed national capability for research in the areas of interest to NSF, and consequently the National Science Foundation should make a better effort toward broader support.

I have made my position known to the Director and to the other officials of the National Science Foundation, and in this way I want to call their attention to it once again and hope that they will do a whole lot better by many sections of the country in the coming year than they have in the past year.

Thank you, Mr. Chairman.

Mr. WON PAT. Mr. Chairman, I will support the amendment that will be offered by my esteemed colleague from New York, Congressman ANGELO RONCALLO, to H.R. 13999, the National Science Foundation Authorization for 1975.

The amendment in straightforward language prohibits the Foundation from using Federal funds to support or conduct research on the human fetus which is outside the mother and has a beating heart.

As this amendment is essentially the same as that which the House approved last July 22 by a vote of 288 to 73 as part of the 1974 NSF authorization bill, I call on my colleagues today to again cast their vote in favor of this worthy amendment.

I must, in all good conscience, point out that human dignity cries out that we should once and for all prohibit the wanton, and I might add, unnecessary research on innocent and living fetuses which has been conducted so heartlessly in the past.

Medical science has testified that there is little practical knowledge which can be gained from the conduct of research on a live fetus And what little information is derived can never offset the untold pain which a fetus who can neither talk nor defend itself must suffer.

Regardless of our religious affiliation, and regardless of our overall views on abortion itself, I trust that this body will act once again to insure that Federal funds are not used in any way whatsoever to permit man, in the name of science, to violate the sanctity of the human fetus.

Certainly, as civilized people, we can do no less. Especially, in light of the past horrors committed in the name of research by those whose humanity was extinct.

Mr. BROWN of California. Mr. Chairman, it is sometimes easy to forget the underlying importance of basic scientific research in our rush to find immediate solutions to problems we face. This research that takes place at the frontiers of our knowledge often seems very abstract, technical, and esoteric. But it is here, in the minds and laboratories of gifted men and women, that the truly breathtaking, revolutionary discoveries that can change society occur. One of the paradoxes of these discoveries, as of life itself, is that they are often unpredictable. This is really what we mean by basic research—breaking such new ground that we cannot tell what we will find.

For example, the fission process itself was discovered quite by chance as a result of chemists bombarding uranium in their continuing search for new elements. The fusion process, on which many hopes are riding as an energy source for the next century, was discovered by chance in the course of studies of how the Sun gets its heat. And the laser—a contraction of "light in phase"—was discovered in the course of research on the kind of light emitted by atoms and molecules.

In recognition of the great potential value that basic research has for the Nation, Congress established the National Science Foundation in 1951. The Foundation's primary mission since then has been to support and strengthen scientific research in all the disciplines.

That we are keenly aware of the fact that basic scientific knowledge is the bedrock of the entire R. & D. structure is borne out by the program proposed for NSF next year. This program contains a 21-percent increase in basic research project support, to a total of $354 million, establishing a very vigorous program of fundamental research for the coming year.

Some areas of NSF's ongoing basic research support that have particular relevance to current problems are as follows:

Research on world climate conditions is helping to establish historical changes in weather and their causes, which have significantly affected temperature and precipitation. These studies are helping to define the boundaries of climatic variability and to establish measures of man's effect on climate. They are also important in studying the effect of climate on, for example, food production.

Research supported on basic magnetic properties of matter has led to development of a high-gradient magnetic separator for refining semi-taconite ore. This has now been tested successfully in the laboratory. Hopefully this process can aid in exploiting the Nation's 200 years' supply of iron resources, still underground because the ores are too impure for existing refining methods.

Research on blood flow has led to the possibility of using echo signals to measure the velocity of blood flow. This offers possible alternatives to present medical procedures involving catheterization of the heart that, although now performed extensively, are dangerous and expensive.

Research on economic systems is producing valuable predictive measures for anticipating trends in such areas as the U.S. trade deficit, effects of devaluation, and consequences of the interaction of one nation's economic system with others, and so forth.

In these and many other areas, it is important that we continue to increase our basic knowledge if we are to find constructive solutions to the problems ahead. In this regard, while I support this legislation very strongly, I am not convinced that we are using the full potential of our mental resources in vital areas of basic research. Not all such research comes under the National Science Foundation's guidance, and there are differences of opinion on how we can best use the limited resources available to us. However, I do believe that we can afford a greater commitment of resources, particularly in the energy field, than this bill authorizes.

Mr. FREY. Mr. Chairman, I am pleased to join my colleagues in supporting H.R. 13999 authorizing appropriations to the National Science Foundation for fiscal year 1975. I commend the chairman and all members of the committee for their diligence and cooperation in working on this bill.

The contribution which NSF can make to our Nation is greater today than perhaps at any other time in its existence. I speak, of course, of its ability to foster the research necessary to resolve the energy problem. Before the problem can be solved, it must be understood. NSF

support the research essential to understanding and appreciating the factors affecting the problem.

The energy problem will require a comprehensive response. It is not likely that any one, miracle-type breakthrough will solve the problem. Rather the answer lies in aggregating many smaller achievements and channeling them toward the goal of national self-sufficiency in energy.

In this respect what is needed is not only technical progress but the effective integration of a series of individual advances into a coordinated, comprehensive solution. I am confident that NSF can provide the leadership in pursuing the required technical achievements. But I am equally concerned that NSF may not have the managerial depth and experience necessary to coordinate an aggressive attack on the energy problem. Holding the reins on such an enormous effort is a formidable task. In the past NSF has not been called to address such a sweeping program.

For this reason I encourage NSF to face up to this point and look for assistance from those agencies which have experience managing huge programs and meeting deadlines. I believe that NASA is in a particularly good position to provide the needed cohesion. NASA has considerable experience in managing programs which are not only large but also scientific. Furthermore, NASA is also contributing some significant technical contributions to the effort. NASA pictures from space are helping to identify new energy reserves. Work on solar panels for Skylab is parallel to work underway on implementing solar energy for domestic Earth use. NSF and NASA are a complementary pair and I believe would make good partners in the drive for independence in energy.

As a beneficial side effect to NSF's increased role in supporting energy R. & D., I hope that NSF would use this as an opportunity to diversify the geographical distribution of the programs it funds. A pattern has emerged whereby a disproportionate amount of its support is going to only a few States. There are some institutions whose high standing in the sciences makes them worthy candidates for NSF support. I am apprehensive that this situation may settle into a fixed pattern with the same few recipients cornering the market on NSF funds year after year.

If we are to build a solid and broad scientific foundation, then research funds must be available to a wide variety of people. Those institutions who may lag slightly the performance of their more prestigious brothers need the funding in order to bridge the gap. Thus, the objective of NSF research projects can be twofold. First, to accomplish a particular scientific mission; and second, to maintain and upgrade the capabilities of institutions who participate in the program.

Mr. Chairman, I have intended my remarks to serve as constructive observations on how NSF can better accomplish its mission and serve the Nation. The NSF has done a good job in the past and if it follows the few points I have made, I believe it will do an even better job.

Mrs. SCHROEDER. Mr. Chairman, I am disheartened that the House is once again, in the name of preserving the dignity of human life, engaging in emotional and acrimonious debate over a so-called fetus protection amendment which on its face betrays a disregard for life.

I am certainly not in favor of any experimentation which would prejudice the life of any human being, whether it be a fetus in its mother's womb, an aborted fetus, or any human being at any stage of its life. However, when we deny any experimentation on nonviable fetal tissue, which is the effect this bill would have, we are not respecting human life; we are depriving ourselves of medical research which does not endanger any human being and may well save the lives of many mothers and their babies in the future.

The emotional rhetoric in this debate has consistently failed to address the broader issue, of which fetal research is only a small part: the whole problem of ethics in biomedical research affecting humans of all ages, including research on prisoners, improper drugs use, and research being conducted on patients without their full knowledge of their risk.

A bill is now in conference—H.R. 7724—which would properly deal with this problem in a comprehensive and thorough manner by establishing a National Commission for the Protection of Human Subjects, composed of scholars from a variety of disciplines, including ethics, philosophy, law, medicine, and theology. This Commission would undertake a comprehensive investigation and study to identify the basic ethical principles which should underlie the conduct of biomedical research involving human subjects, and be authorized to establish and implement policies designed to assure that biomedical research involving human subjects is carried out in accord with those principles. Although limited to HEW grants, the findings of the Commission would certainly be applicable to all Federal programs.

There is no question that legislation of the type before us would be extremely damaging to scientific research. Experiments using tissue from nonviable fetuses, which are closely akin to the investigations undertaken in autopsies, have led to the discovery of cures for such crippling diseases as polio and German measles. Scientists who are dependent on the unique characteristics of fetal tissue are now on the verge of breakthroughs in several other areas, such as cures for sickle cell anemia, diabetes, cerebral palsy, and several forms of mental retardation. It is acknowledged that prohibitive legislation would greatly impede the progress of cancer research.

This amendment is also an insult to the many able and conscientious physicians who are trying to deal in a sensitive and tender fashion with the emergent fetus, while affording society the immense benefits which can be gained in the protection of mothers and newborn, as well as cures for major diseases.

To deny the right of experimentation on any fetus outside the womb of its mother as long as it has a hearbeat, regardless of its viability, could have ramifications far beyond the narrow issue of fetal research. For example, in organ transplants, the biological system must be kept fully functioning, including a full heartbeat, before a successful transfer can be made. The same issues as to the definitive vital signs, whether heartbeats or brain waves, or a combination of factors, are involved. This problem involves some of the most complex ethical, moral and legal issues of our time. It must not be determined by emotional debate on nongermane floor amendments which have not even had the benefit of due consideration by our legislative body.

For the interest of my colleagues I am inserting a recent New York Times article on fetal research.

CURBS ON FETAL RESEARCH IMPEDE FIGHT ON DISEASE

(By Lawrence K. Altman)

Restrictions on fetal research that have been instituted in the last few weeks are seriously impeding doctors in several medical centers in the United States in their efforts to develop potential cures and preventions for a wide variety of diseases.

These curbs are now affecting research on cancer birth defects, aging, the common cold and other major health problems, according to interviews with leading medical investigators.

Last week, a Boston obstetrician was indicted for manslaughter in the death of a fetus in connection with a legal abortion. Four other doctors in Massachusetts were accused of violating a 19th-century law against grave-robbing after they used tissue from aborted fetuses for medical research.

In addition, anti-abortion forces and people who feel it is unethical to use products of human conception for research have picketed institutions around the country where fetal tissues are used in the laboratory. At least one city, Cleveland, has passed an ordinance prohibiting research on, or medical use of, products of aborted human conception.

As a result of that ban, Dr. Fred Robbins, dean of Case-Western Reserve Medical School there, said:

"We are in serious danger of losing a major grant that is built around developing diagnostic tests for early diagnosis of a variety of birth defects."

Dr. Robbins added: "You have to be a brave fellow to do fetal research these days."

In California, a law passed last year that bans scientific experiments on live fetuses has hindered such research at Stanford Medical School, a spokesman for the Palo Alto institution said.

The National Institutes of Health is sponsoring a registry to obtain data on a prenatal diagnostic test called amsiocentesis. The purpose is to assess the safety and accuracy of these tests from studies in the United States.

However, Dr. Duane Alexander of the National Institutes of Health said that in the wake of the Boston indictments, officials of Johns Hopkins Hospital in Baltimore had prohibited their doctors from obtaining samples of fetal cells which would otherwise have been discarded, as material for scientific con-

trols for tests used in treating mothers and newborns.

CHILLING EFFECT

Neil Chayet, the lawyer for the doctors indicted in Boston, said "the chilling effect" of that case had caused two groups of investigators in Massachusetts to stop three human fetal research projects.

"These doctors are nervous about publicly revealing what research they are not doing anymore," Mr. Chayet said. "They fear they, too, may be implicated," he added.

At Harvard, a spokesman said that officials had imposed a "no comment" status pending disposition of the case against the doctors.

Concern resulting from debate over the ethics of fetal research has reportedly led to curtailment of some grants to researchers using fetal tissue. Further, researchers here, in Boston, Philadelphia and Cleveland said the growing public debate over fetal research had hampered some of their projects.

Over the last several decades fetal research has resulted in successful preventions of cripplers such as polio and German measles (rubella). And successful treatments of newborns as well as adults have resulted since World War II from research dependent on fetal tissues obtained from natural miscarriages and legal abortions.

But the investigators said that such therapies had become so routine that the public took them for granted and overlooked the fact that they had been developed from fetal research.

Some researchers criticized their own professional organizations and National Institutes of Health officials for not having prepared a list of such gains of defense of the opposition of mental research.

CRUX OF THE DEBATE

The crux of the debate over such research is: What use can be made of fetal tissue when scientists obtain "informed consent" from the mother? Researchers consider it ethically wrong to deny proper use of that tissue when it can potentially benefit mankind and when it would otherwise be wasted. Some people oppose its use under any circumstance, even with the permission of the parents.

The Rev. Warren Schaller, executive director of the National Right to Life Committee in Washington, said that the organization, a leader among anti-abortion forces, opposed experimentation on fetuses because the fetuses cannot give informed consent.

However, he said that the group had not taken an official position on the question of how researchers could do the study that require fetal tissue if curbs against such investigations were imposed nationally.

Dr. John F. Enders, the Harvard Nobel laureate, whose research involving fetal tissue led to the development of the polio vaccine, said:

"I feel it would be a big setback for the progress of medicine if use of fetal tissues were stopped."

Others pointed out the relevance of fetal research to the conquest of cancer program that has presidential and Congressional backing. Doctors are mystified why growth is so effectively controlled in the rapidly dividing cells of a fetus and child while similar biologic principles lead to uncontrolled growth of cancers and the apparent breakdown in immunologic defenses in malignant disease.

Barriers against the use of fetal tissue "certainly would impede progress in cancer research," Dr. Enders said.

DRAMATIC USES CITED

Vaccines and treatment of premature babies was among the most dramatic examples noted of life-saving therapies that could not have been developed without use of fetal tissue. Many doses of licensed vaccines now prescribed by doctors are prepared from fetal tissues obtained from just one fetus aborted in Sweden in 1962.

Other examples include blood cells that physicians use to help diagnose some cancers and other diseases. Laboratory technicians rely on fetal cells to detect viruses in protecting the public's health against outbreaks of many common viral infections.

Yet the researchers said they had been falsely accused of planning abortions for scientific investigations and that some political forces have purposely confused the separate tissues of proper controls on fetal research and legalized abortions.

Now researchers are trying to develop vaccines against diseases that cannot be prevented or to improve existing ones like the rabies vaccine. They are trying to discover treatments for genetic diseases like sickle-cell anemia and forms of cerebral palsy.

Also, to prevent further thalidomide tragedies, they are seeking to determine which drugs that are considered safe for adults might damage a growing fetus or newborn child. That was cited as one reason why the Boston doctors did the studies that led to their indictments.

With tragedies like thalidomide in mind, Dr. Richard Crout, who directs the Bureau of Drugs at the Food and Drug Administration, said "Almost every major drug disaster has occurred in children, often in newborns." Only after hundreds of newborns were permanently blinded did doctors learn that doses of oxygen that were safe for adults were deleterious to newborns.

MORE TESTING URGED

As a result, Dr. Crout said the agency was encouraging more, rather than less, testing of drugs in children to determine the safest, most effective dose of medication.

Such data are considered critical because doctors in recent years have discovered that the physiology of the newborn and children up to about age two years differs significantly from that of the adult. Accordingly, pediatricians often cannot prescribe drugs the way their colleagues do for adult patients.

Dr. Charles A. Alford of the University of Alabama in Birmingham, who is president of the Society of Pediatric Research, said "We could accidentally kill fetuses trying to use adult doses because fetuses do not handle the drug the same way the mother does."

Human fetuses are needed for research, in part, because only some of the critical information can be derived from animal studies.

Dr. Victor A. McKusick of Johns Hopkins Hospital in Baltimore, one of the world's leading geneticists, said that fetal tissue was essential to understand many discorders because cells from adults "just don't have the same biological characteristics as fetal cells."

GENETIC SWITCHES

Dr. McKusick went on:

"Development involves switching off certain genes and switching on other genes. Throughout development, different sets of genes operate at particular times, like an orchestra where certain instruments are silent, during some stages and playing only during others."

Largely as a result of environmental factors, humans have different types of protein in their red blood cells as fetuses and as adults. The switchover, which comes about the time of birth, is a natural event that many doctors wish to study as a model for other proteins that change when a baby enters the world. Dr. McKusick said:

"Many of the genetically determined malformations, for example, may be defects in protein that are around during embryonic development and then are switched off later on because they no longer have a purpose. One would never know about those except by studying fetal tissue. Therefore the root cause of many genetic defects could not be discovered unless one had access to the stage at which the action occurs, namely live fetal tissue."

Other doctors are growing fetal cells in test tubes in the laboratory as a model for studying human aging. Dr. Leonard Hayflick of Stanford Medical School has found that there is a finite life span of normal human cells that varies with age. Fetal cells double for about 50 cycles before dying whereas those taken from a 10 year old child, for example will die out after 30 or so cycles.

SAFER THYROID THERAPY

Thyroid disease is an area in which fetal research is credited with dividends in safer therapy. In 1948, Dr. Earl Chapman of the Massachusetts General Hospital in Boston and his colleagues gave small doses of radioactive iodine just before a group of women with heart disease had therapeutic abortions. From studies on the fetuses, these doctors determined that women with thyroid disease could be treated medically during the first four months of pregnancy without harming the fetus. The endocrinologic study also led to important knowledge of thyroid physiology. If the fetus has an abnormal thyroid, the baby can become a cretin.

The controversy over fetal research comes at a time when efforts of obstetricians and pediatricians have significantly lowered the nation's infant mortality rates, which had come under public criticism for so long. Better therapies to treat disorders in premature babies is credited in part for these lowered rates.

"A premature baby, in effect, is [physiologically] a fetus," Dr. Alford, the Alabama pediatrician said. He added: "We are right on the edge of going into an era when we can treat the fetus itself."

In Cleveland, where an ordinance prohibits use of "the products of human conception" for medical purposes, Dr. Robbins, a Nobel laureate and president of the American Pediatric Society, said:

"The most important thing in the debate is the infringement curbs offer to human rights by imposing one group of standards on us all. I don't care for it. If there were more women in Congress, I don't think you'd have quite this problem."

Mr. VANIK. Mr. Chairman, I rise in support of this legislation to authorize appropriations for the National Science Foundation. At the same time, I would like to raise one matter of concern to me in this pending legislation. The Research Applied to National Needs program was established within NSF to focus the resources of the Federal Government on selected scientific and technical problems with the objective of contributing to their practical solution. As the committee report outlines, the RANN program is currently engaged in funding research into three basic areas: Energy, the environment, and productivity. Of these three categories, energy consumes the lion's share of the present RANN budget.

In reviewing the scope of RANN's activity in the energy field, I find an impressive array of goal-oriented programs, particularly in the field of solar and geothermal energy. At the same time, I find a glaring lapse in RANN's

activities in the research on hydrogen fuels. I enumerated the many advantages of hydrogen fuel earlier today during House consideration of legislation authorizing appropriations for the National Aeronautics and Space Administration. I was gratified by the House's acceptance of my amendment to increase by $2 million NASA's research into hydrogen production and utilization systems.

I am sorry to say that RANN has shown little inclination to become involved in hydrogen fuel research. There are many significant problems which must be resolved before hydrogen can assume a major role in our energy budget. A significant commitment is needed by the Federal Government before the many questions involving the production, transmission, and safe utilization of hydrogen can be resolved. At present, the burden of hydrogen fuel research is being shouldered by the private sector, but even here the commitment of resources is inadequate. It is up to NSF to demonstrate leadership in this vital area of energy development, for it was with just such projects in mind that Congress initiated the RANN program. I am hopeful that NSF will take a more active role in the coming months to explore the vast potential of this remarkable fuel.

Mr. EDWARDS of California. Mr. Chairman, it distresses me that the very delicate and complicated issue of fetal research has been brought to the floor of the House in its present form and without the benefit of full consideration by the appropriate committees. We are advised that to pass the amendment would have the effect of prohibiting the National Science Foundation from doing something it never has done and has no intention of doing; namely, providing Federal support for such research.

Therefore, a vote of "no" seems logical in order not to clutter up our statutes with unnecessary laws. However a "no" vote to this otherwise meaningless and useless amendment can also be interpreted as a vote for Federal support of fetal research and, depending on individual viewpoints, a vote either for or against the preservation of human life.

That is a decision I am not prepared to make, and perhaps others of my colleagues are in the same dilemma. Most of us are lawyers, not scientists, and most of us have had very little exposure to available information or expert opinion on this issue. I myself have done some reading on fetal research, but I cannot and do not claim to be an expert.

Because this amendment is irrelevant to this particular bill and the activities of the National Science Foundation, I feel a hasty decision on the issue of fetal research, without the benefit of full deliberation by the appropriate committees, is unwarranted. Therefore, the only appropriate vote I can cast is a vote of "present."

The CHAIRMAN. If there are no further requests for time, the Clerk will read.

The Clerk read 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 Science Foundation for the fiscal year ending June 30, 1975, for the following categories:

(1) Scientific Research Project Support, $354,000,000.

(2) National and Special Research Programs, $86,000,000.

(3) National Research Centers, $52,500,000.

(4) Science Information Activities, $8,300,000.

(5) International Cooperative Scientific Activities, $8,000,000.

(6) Research Applied to National Needs, $139,100,000.

(7) Intergovernmental Science Program, $1,000,000.

(8) Institutional Improvement for Science, $10,000,000.

(9) Graduate Student Support, $13,200,000.

(10) Science Education Improvement, $68,900,000.

(11) Planning and Policy Studies, $2,700,000.

(12) Program Development and Management, $39,500,000.

SEC. 2. Notwithstanding any other provision of this or any other Act—

(a) of the total amount authorized under section 1 of this Act not less than $10,000,000 shall be available for the purpose of "Institutional Improvement for Science";

(b) of the total amount authorized under section 1 of this Act not less than $13,200,000 shall be available for the purpose of "Graduate Student Support";

(c) of the total amount authorized under section 1 of this Act not less than $68,500,000 shall be available for the purpose of "Science Education Improvement";

(d) of the total amount authorized under section 1 category (2) not less than $2,200,000 shall be available for "Experimental R. & D. Incentives";

(e) of the total amount authorized under section 1 category (6) not less than $2,000,000 shall be available for "Fire Research";

(f) of the total amount authorized under section 1 category (10) not less than $1,500,000 shall be available for "Science Faculty Fellowships for College Teachers";

(g) of the total amount authorized under section 1 category (10) not less than $3,800,000 shall be available for "Student Programs" including "Undergraduate Student Projects", and "Student Originated Studies";

(h) of the total amount authorized under section 1 category (10) not less than $2,000,000 shall be available for "High School Student Projects";

(i) prior to the obligation of any funds authorized under section 1, category 6, for the program of Solar Energy Research and Technology, the Foundation shall coordinate such program with the National Aeronautics and Space Administration and report the resulting plans, schedules, and other findings to the Committee on Science and Astronautics of the House of Representatives and the Committee on Labor and Public Welfare of the Senate within ninety days from the effective date of this Act. The coordinated program shall be designed to take maximum advantage of the special capabilities of each agency. Any part or parts of the program which, according to findings made under this provision, can appropriately be carried out by the National Aeronautics and Space Administration shall be so assigned, including managerial responsibility, and shall be funded by the Foundation pursuant to section 11(c) of Public Law 81-507 (64 Stat. 149.).

SEC. 3. Appropriations made pursuant to this Act may be used, but not to exceed $5,000, for official consultation, representation, or other extraordinary expenses upon the approval or authority of the Director of the National Science Foundation, and his determination shall be final and conclusive upon the accounting officers of the Government.

SEC. 4. In addition to such sums as are authorized by section 1, not to exceed $5,000,000, is authorized to be appropriated for fiscal year ending June 30, 1975, for expenses of the National Science Foundation incurred outside the United States to be paid for in foreign currencies which the Treasury Department determines to be excess to the normal requirements of the United States.

SEC. 5. Appropriations made pursuant to authority provided in sections 1 and 4 shall remain available for obligation, for expenditure, or for obligation and expenditure, for such period or periods as may be specified in Acts making such appropriations.

SEC. 6. No funds may be transferred from any particular category listed in section 1 to any other category or categories listed in such section if the total of the funds so transferred from that particular category would exceed 10 per centum thereof, and no funds may be transferred to any particular category listed in section 1 from any other category or categories listed in such section if the total of the funds so transferred to that particular category would exceed 10 per centum thereof, unless—

(A) a period of thirty legislative days has passed after the Director or his designee has transmitted to the Speaker of the House of Representatives and to the President of the Senate and to the Committee on Science and Astronautics of the House of Representatives and to the Committee on Labor and Public Welfare of the Senate a written report containing a full and complete statement concerning the nature of the transfer and the reason thereof, or

(B) each such committee before the expiration of such period has transmitted to the Director written notice to the effect that such committee has no objection to the proposed action.

SEC. 7. (a) If an institution of higher education determines, after affording notice and opportunity for hearing to an individual attending, or employed by, such institution, that such individual has been convicted by any court of record of any crime which was committed after the date of enactment of this Act and which involved the use of (or assistance to others in the use of) force, disruption, or the seizure of property under control of any institution of higher education to prevent officials or students in such institution from engaging in their duties or pursuing their studies and, that such crime was of a serious nature and contributed to a substantial disruption of the administration of the institution with respect to which such crime was committed, then the institution which such individual attends, or is employed by, shall deny for a period of two years any further payment to, or for the direct benefit of, such individual under any of the programs specified in subsection (c). If an institution denies an individual assistance under the authority of the preceding sentence of this subsection, then any institution which such individual subsequently attends shall deny for the remainder of the two-year period any further payment to, or for the direct benefit of, such individual under any of the programs specified in subsection (c).

(b) If an institution of higher education determines, after affording notice and opportunity for hearing to an individual attending, or employed by, such institution, that such individual has willfully refused to obey a lawful regulation or order of such

institution after the date of enactment of this Act, and that such refusal was of a serious nature and contributed to a substantial disruption of the administration of such institution, then such institution shall deny, for a period of two years, any further payment to, or for the direct benefit of, such individual under any of the programs specified in subsection (c).

(c) The programs referred to in subsections (a) and (b) are as follows:

(1) The programs authorized by the National Science Foundation Act of 1950; and

(2) The programs authorized under title IX of the National Defense Education Act of 1958 relating to establishing the Science Information Service.

(d) (1) Nothing in this Act, or any Act amended by this Act, shall be construed to prohibit any institution of higher education from refusing to award, continue, or extend any financial assistance under such Act to any individual because of any misconduct which in its judgment bears adversely on his fitness for such assistance.

(2) Nothing in this section shall be construed as limiting or prejudicing the rights and prerogatives of any institution of higher education to institute and carry out an independent, disciplinary proceeding pursuant to existing authority, practice, and law.

(3) Nothing in this section shall be construed to limit the freedom of any student to verbal expression of individual views or opinions.

SEC. 8. Notwithstanding any other provision of this or any other Act, the Director of the National Science Foundation shall keep the Committee on Science and Astronautics of the House of Representatives and the Committee on Labor and Public Welfare of the Senate fully and currently informed with respect to all of the activities of the National Science Foundation.

SEC. 9. This Act may be cited as the "National Science Foundation Authorization Act, 1975".

Mr. TEAGUE (during the reading). Mr. Chairman, I ask unanimous consent that the bill may be considered as read, printed in the RECORD, and open to amendment at any point.

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

There was no objection.

AMENDMENTS OFFERED BY MR. BELL

Mr. BELL. Mr. Chairman, I offer several amendments and ask unanimous consent that they may be considered en bloc.

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

There was no objection.

The Clerk read as follows:

Amendments offered by Mr. BELL: Page 2, lines 7 and 8: Delete "$139,100,000" and insert in lieu thereof "$144,600,000".

And on page 2, lines 11 and 12: Delete "$10,000,000" and insert in lieu thereof "$4,500,000".

And on page 2, line 22: Delete "$10,000,000" and insert in lieu thereof "$4,500,000".

Mr. BELL. Mr. Chairman, the amendment that I am proposing would increase the part of the budget dealing with RANN, research applied to national needs, page 67 in your report, from $139,100,000 to $144,600,000.

That is an increase of $5.5 million which is still below the amount the administration requested for RANN which was $148,900,000.

Almost two-thirds of the RANN budget is earmarked for programs designed to cope with the energy problem.

Bear in mind, this increase in RANN was precisely the figure requested by the National Science Foundation and by the OMB.

A considerable amount of the time was spent studying this matter by these two agencies and it was decided that $148,900,000 was the best amount to be budgeted for RANN.

The subcommittee then decided to cut $4.3 million from the RANN budget, getting it down to $144,600,000.

Then it was in the full committee where the present decrease was approved to reduce RANN by another $5.5 million and increase programs which involve increasing science education. Making a total cut in the RANN program of $9.8 million or in round numbers almost $10 million cut out of the heart of our energy research program.

Whereas, I concur that science education is important, I think we come to the question, however, of priorities—that is, assuming that we wish to stay within the total NSF budget with which I espouse—at this particular point in time.

My amendment would decrease the science education category of institutional improvement for science, page 84 in the report, an area that the committee has increased, incidentally, by $7 million, which amounts to a 233-percent increase over the NSF 1975 request.

My amendment would still leave this budget category with an increase of 50 percent over the budget request.

The question on all of this is, which of the needs of this Nation should have a higher priority, increased scientific education programs, or programs to develop new energy resources?

I say at this time the major need of this Nation is for the development of new energy resources.

The American people were deeply distressed a few months ago to discover the true meaning of shortages.

They did not like being dependent upon the Arab Nations for a large segment of our energy needs.

They did not like the long lines at gasoline stations.

We, therefore, embarked on an aggressive new course for this country—to make an all-out effort, to find and develop new sources of energy to make us self-sufficient.

The most vital issues in my district are still the energy-related problems.

These include the unemployment and inflation that still exist as a result of the shortages, and the fear that some day an Arab country might again turn off the energy tap.

I hold that just because the oil spigot has been turned back on, this is no time to roll over, relax, and go back to sleep again.

We must continue to pursue our goal of energy self-sufficiency.

The opponents of this measure may say that only $5.5 million will not make much difference, or that we have plenty already dedicated to energy research. First, I hold that we are not talking about $5.5 million but almost $10 million.

I submit that we need to concentrate as much money as possible in this direction to see to it that we will not get caught short again.

Besides, the amount involved is not as important as the symbol of what our Government agencies are intending to do.

We point the way, we furnish the leadership to the rest of the country.

If we cut back our energy research funds, that will symbolize a direction to the rest of the country.

A large portion of RANN work is done outside of the National Science Foundation by industries and universities.

If we display by our action in the House today that our energy research efforts are no longer the No. 1 priority, the adverse effects of this may be greater than we think.

The committee reduced the moneys for energy research so that they would have more to spend in the areas of science education improvement.

Now let us touch on the science education issue, for a moment.

I submit that the energy research program under RANN is the best school we have going for us today.

RANN provides on-the-job training for our students.

These research programs employ 1,000 students and 1,000 professors, and probably provide the best scientific education in the Nation.

Not only are the students learning while they do research, but so are the professors gathering a better understanding of how to teach new courses from the innovative research approaches that they have developed through the RANN programs.

The number of students and professors would be doubled if RANN receives their budget request.

So here is your science education improvement, built into RANN.

I believe that this program is a major step in the effort toward providing the taxpayer a full return on his investment in basic research.

Much of the antitechnology sentiment is the result of our *failure to fully* apply the techniques and know-how developed from our basic research.

People want solutions to problems.

They can understand their money going to research if they can see some anwers coming down the line.

The RANN program is designed to help supply those answers.

It is, therefore, imperative that Congress provide the leadership, direction, and perseverance necessary to resolve our energy problems.

If we do not provide this leadership, our goal of self-sufficiency cannot be achieved.

Mr. Chairman, it is vital that this amendment be passed.

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

Mr. BELL. I yield to the gentleman from Idaho.

Mr. SYMMS. I thank the gentleman for yielding.

I must commend the gentleman in the well for making a very persuasive argument. I should like to ask him a question.

On page 64 of the report there is a listing of $300,000 for foreign science; on page 65, $8 million for international cooperative science activities, broken down into cooperative science programs, scientific organizations, and resources programs, international travel for $500,000, and support for special foreign currency projects, and support for cooperative science information activities with the U.S.S.R., UNESCO, UNISIST, and so forth.

Would the gentleman say that his amendment would be more important than these foreign activities?

Mr. BELL. I would have to say, in my opinion, I think this amendment is the most important aspect of the whole bill. I think there actually should be more budgeted, but I want to stay within the budget. I think it actually should be more.

Mr. SYMMS. Would the gentleman be happy to strike out $5 or $6 million out of this international cooperation and put it in the proper place in his amendment?

Mr. BELL. I want also to say that I think the idea of saying we have got to have this or else, might not be the correct approach. I think we can have a lot of things. I think we can do a lot of things if we use some intelligence about the way we do it. We can have things to promote energy, and we can also have things to help our relationship internationally.

The CHAIRMAN. The time of the gentleman has expired.

(By unanimous consent, Mr. BELL was allowed to proceed for 2 additional minutes.)

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

Mr. BELL. I yield to the gentleman from Wisconsin.

Mr. FROEHLICH. I thank the gentleman for yielding.

I should just like to commend the gentleman for his leadership in this area. I think the energy research part of this bill is probably the most important at this critical time. I want to let the gentleman know that I support his amendment, but if his amendment is not adopted, I have an amendment pending at the desk that will increase this area $9.8 million, regardless of the wonderful balancing against the appropriations by this committee.

Mr. BELL. I thank the gentleman.

Mr. SYMMS. Mr. Chairman, will the gentleman yield further?

Mr. BELL. I yield to the gentleman from Idaho.

Mr. SYMMS. I thank the gentleman for yielding.

I see that there is $200,000 in the report for support for special foreign currency projects. Would the gentleman tell me what that is?

Mr. BELL. I believe that that is for some foreign currencies that we have to use in our dealings in the National Science Foundation throughout the world.

Mr. SYMMS. Are we going to teach the foreigners how we counterfeit the money over here through our processes for obtaining scientific data?

Mr. BELL. I will not say that. I might say that there are some areas where there is some water. I think we have to face up to the priorities, however.

Mr. SYMMS. I appreciate the work the gentleman is doing. Would the gentleman be willing to accept an amendment to his amendment which would slice out—was it $5.2 million that he is adding?

Mr. BELL. $5.5 million.

Mr. SYMMS. To take $5.15 million out of the international cooperative science activities and replace it and move it over so that the membership would not have to?

Mr. BELL. If the gentleman will yield back to me, I think that the place to make the change is where I have designated it. I think that is the place that can take the largest change.

For example, as I said, right now under this bill it is 233 percent over the request.

So I think that making it 50 percent more than the 1975 budget request is certainly adequate. I do not think we need to get into cutting and I do not want to get into cutting the international area, because that is not my field of expertise but I think there are efforts there which we need.

Mr. MOSHER. Mr. Chairman, I oppose the amendment.

Mr. Chairman, it makes me very unhappy to have to oppose the amendment offered by my friend, the gentleman from California, but I think it is imperative that the House defeat this amendment. Let me address myself to several of the gentleman's remarks.

I am surprised to have the gentleman from California imply early in his remarks that our committee or this House should always accept the recommendations of the Office of Management and Budget or of the NSF itself. The gentleman made a strong argument that since the OMB and the NSF had recommended a certain amount of money for RANN we should accept it and should not reduce it.

I want to make the point that the committee thoroughly considered this and had abundant evidence on this subject and we are convinced that energy and related research as recommended in our bill is very adequate. It means a dynamic, tremendously increased program in energy research.

The gentleman from California constantly refers to cutting our energy program or reducing our energy program. Those are the words he used. I want to make the point that this bill very substantially increases our authorization for energy-related research. The administration proposed an increase of something like 98 percent. We have merely cut back to a level of about 85 percent—and that is an 85-percent increase over the present level. That is what we are proposing.

I do not take a back seat to anyone in my recognition of the emergency need, or if we want to use the word, the crucial need to move ahead in seeking alternative sources of energy so that we can become self-sufficient. So I make the point that the authorization bill as it stands before us represents an 85-percent increase in energy research over the present level.

The evidence before our committee I think supports the fact an 85-percent increase is about all the NSF has the capacity to use. Of course, there is controversy over that subject.

The gentleman from California talks about priorities. I agree that this is a matter of priorities we are discussing here today. The priority that the committee insists on, and it represents a carefully considered position of the committee over many years, is that we should not cut back on science education support. There is abundant evidence that the energy research of the future is going to depend on an adequately trained corps of scientists, adequately trained manpower. If we cut back on science education, as the amendment offered by the gentleman from California (Mr. BELL) would have us do, we cut the very substance out of a national resource that is imperatively needed to make science research effective.

We are proposing in our bill only maintaining the level of science education support as it exists today. I personally think it should be increased. We are asking only to maintain it as it is. I repeat that it is imperatively supportive of energy research.

Let me make a final comment, that the proposals offered by the gentleman from California (Mr. BELL) as represented in this amendment were carefully considered in both the subcommittee and I believe correctly in the full committee and by very substantial margins his proposals were defeated.

I certainly have nothing against the minority point of view in any legislative body, but I must report accurately that the committee is overwhelmingly in support of the authorization bill as it now stands. Therefore, I ask the House to defeat the amendment of the gentleman from California (Mr. BELL).

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

The CHAIRMAN. The time of the gentleman has expired.

(By unanimous consent Mr. MOSHER was allowed to proceed for an additional 2 minutes.)

Mr. MOSHER. Mr. Chairman, I yield to the gentleman from California (Mr. BELL).

Mr. BELL. Mr. Chairman, the gentleman from Ohio mentions the fact that RANN has already been increased 80 percent. That is for a reason. As I mentioned earlier, it was because the energy crisis was a part of it; but even though the energy crisis is still here to some extent, we have seen fit to drop $20 million out of things that go to energy re-

search and RANN programs; $10 million from RANN, $9.8 million and another $9.7 million from the basic research which affects energy.

Now, how long is it going to take us to learn to realize that we must face up to this energy crisis and concentrate on it. We cannot take it off and on and substitute something else.

Let me make one other point. There is education in the RANN program, as I said before. There are 1,000 students and 1,000 professors that are going to get the benefit of education, on-the-job training. Of the amount that goes to institutional grants, that money may not even get to many students. It goes to institutions, universities. They can do what they want with it. They might use it for institutional salaries or many other things. It may never get to any students; so I point out that the only way to get those students to get the benefits at the same time is through the amendment.

Mr. MOSHER. Mr. Chairman, I ask unanimous consent to proceed for 1 additional minute.

(By unanimous consent Mr. MOSHER was allowed to proceed for an additional 1 minute.)

Mr. MOSHER. Mr. BELL's comments about the institutional grants ignore the fact that this program has a long history of effective support of actual research and actual students.

Moreover, his statement that we are cutting $20 million out of research might lead the House to believe we are cutting it out of actual existing research. We are only cutting it out of an actual administration proposal, which the committee feels was not warranted.

Mr. DAVIS of Georgia. Mr. Chairman, I move to strike the last word.

Mr. Chairman, I reluctantly oppose the amendment offered by the gentleman from California (Mr. BELL), who is my very good friend and with whom I have worked nigh onto my 14th year on the committee.

I associate myself fully with the remarks of my good friend from Ohio (Mr. MOSHER), with whom I have worked on the committee the same number of years.

I would simply say that Mr. BELL's amendment would give one the impression that all of the RANN money goes to energy and that the RANN program is the only part of the Government that is engaged in research in energy and finding new ways, new sources of using what we have.

In truth and in fact, the national effort bent toward the production of new sources of energy, new ways of using existing energy, come to about $1.5 billion, the national effort.

The RANN effort is just a small amount when compared to the entire national Federal effort in that field.

I would also like to point out another salient point, that is that about 42 percent of the RANN money, research applied to national needs is basic research. Forty percent of its money goes to basic research.

Now, when we say basic research, we do not know what use our discoveries will lead to, if we discover anything. If we discover anything, we cannot say in advance this is energy-related, because if we say that, then it is not basic research, it becomes applied research.

I say again that 42 percent of the RANN money is used in basic research, which cannot honestly be said to be energy-related.

Mr. Chairman, I would also like to repeat the information that my friend, the gentleman from Ohio (Mr. MOSHER), stated to this chamber, and that is the fact that the RANN program this year, under the bill reported out by our subcommittee and by the full committee by an overwhelming majority, does raise the RANN budget 85 percent above what it was last year.

Mr. Chairman, we felt that was reasonable. We felt that the cutting down of the educational support money was unreasonable. As Mr. MOSHER pointed out, it is a matter of a good many years standing, and I would add this one additional point, that when you have college students, graduate students, even postdoctoral students working on scientific projects, the odds, I would say, are about 3 or 4 to 1 that the project they select as being worthy of being worked on will in and of itself be energy-related, because, as Mr. BELL correctly states, that is the question today.

I respectfully urge, Mr. Chairman, that the members of this committee vote this amendment down.

Mr. FROEHLICH. Mr. Chairman, I rise in support of the amendment.

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

Mr. FROEHLICH. Mr. Chairman, I yield to the gentleman from California.

Mr. BELL. Mr. Chairman, the gentleman just spoke of RANN and the National Science Foundation not being the only area in which research is done for energy. That is certainly true, but I want to raise this point: Is that not symbolic? Is that not what we are talking about? In every area in which an attempt is made to study energy, it should be made.

Mr. Chairman, I think that it is important and somewhat symbolic that we want to cut $9.8 million, almost $10 million out of RANN research right now. In fact the committee has already cut $9.7 million out of basic research which is in this bill, makes it almost $20 million that we have cut out of energy-related research in this bill.

Mr. Chairman, that to me seems rather ridiculous, that we would make those cuts at this particular time.

I think that it is very important that we realize basic research is a very important aspect, but I do not think at this particular point in time that it is so vital and important that we substitute educational facilities or institutes that are not going to do as much of an educational job, actually, as the RANN program will do.

Mr. Chairman, I think that is in itself a mistake. I do not think any of us want to be here voting against trying to increase the energy research of this country. That is what it is: This is research done in energy. I do not think we want to see this energy research stopped.

Mr. Chairman, I urge that we adopt the amendment.

Mr. FROEHLICH. Mr. Chairman, I commend the gentleman and agree with his statement.

The CHAIRMAN. The question is on the amendment offered by the gentleman from California (Mr. BELL).

The question was taken; and the Chairman announced that the noes appeared to have it.

Mr. BELL. Mr. Chairman, I make the point of order that a quorum is not present.

The CHAIRMAN. Evidently, a quorum is not present. The call will be taken by electronic device.

The call was taken by electronic device, and the following Members failed to respond:

[Roll No. 184]

Adams	Goldwater	Quillen
Alexander	Gray	Reid
Andrews, N.C.	Haley	Robison, N.Y.
Ashley	Hanley	Rooney, N.Y.
Biaggi	Hanna	Rooney, Pa.
Blackburn	Hansen, Wash.	Rose
Blatnik	Harsha	Runnels
Bolling	Hays	Ruppe
Bowen	Hébert	Satterfield
Broomfield	Helstoski	Shipley
Brown, Mich.	Holifield	Shuster
Buchanan	Hosmer	Sisk
Carey, N.Y.	Johnson, Pa.	Steiger, Ariz.
Carney, Ohio	Karth	Stokes
Cochran	Kazen	Stubblefield
Collins, Tex.	Lujan	Sullivan
Conyers	McFall	Thompson, N.J.
Davis, S.C.	McKinney	Towell, Nev.
Dellenback	McSpadden	Udall
Dellums	Madigan	Ullman
Diggs	Martin, Nebr.	Wampler
Dorn	Milford	Whitehurst
Drinan	Mills	Williams
Evins, Tenn.	Montgomery	Wilson,
Fisher	Murphy, N.Y.	Charles H.,
Flynt	Myers	Calif.
Frenzel	Patman	Wyatt
Gettys	Pickle	Wylie

Accordingly the Committee rose; and the Speaker having resumed the chair, Mr. HANLEY, 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. 13999, and finding itself without a quorum, he had directed the Members to record their presence by electronic device, whereupon 351 Members recorded their presence, a quorum, and he submitted herewith the names of the absentees to be spread upon the Journal.

The Committee resumed its sitting.

The CHAIRMAN. When the Committee rose, the Chair had announced that the noes appeared to have it on the amendment offered by the gentleman from California (Mr. BELL).

Mr. BELL. Mr. Chairman, I demand a recorded vote.

A recorded vote was refused.

So the amendment was rejected.

AMENDMENT OFFERED BY MR. FROEHLICH

Mr. FROEHLICH. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. FROEHLICH: On page 2, on lines 7 and 8, strike "$139,100,0000" and insert therefor "$148,900,000".

Mr. FROEHLICH. Mr. Chairman, this amendment addresses itself to the same area as the preceding amendment offered by the gentleman from California (Mr. BELL). His amendment transferred funds from one area to another. My amendment just increases the area dealing with energy research and technology, advanced technology applications, and human resources and services in Research Applied to National Needs.

The administration requested $148,900,000. The committee has cut this to $139,100,000. This restores it to the original request of the administration.

Mr. Chairman, this particular amendment addresses itself to full funding, as the administration requested, of $148,900,000 for energy research and technology. We are specifically interested in spending $50 million for solar energy, $22,000,300 for geothermal energy, $10,700,000 for energy conservation and storage, $6,200,000 for energy systems; $3,800,000 for energy resources; $1 million for energy and fuel transportation, and $900,000 for advanced automotive propulsion.

The committee has reduced this to spend the money in other areas. If my indication of demand by the people of this country as represented by those in my district means anything, it means that the people want this Congress to move forward immediately in energy research and energy development, so any cut in this area is totally uncalled for. Rather than fight with the committee over priorities, Mr. Chairman, I ask that the Members support this amendment that increases the appropriation to the amount asked for by the administration.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Wisconsin (Mr. FROEHLICH).

The question was taken; and the Chairman announced that the noes appeared to have it.

Mr. FROEHLICH. Mr. Chairman, I demand a recorded vote.

A recorded vote was refused.

So the amendment was rejected.

AMENDMENT OFFERED BY MR. FROEHLICH

Mr. FROEHLICH. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. FROEHLICH: On page 3, after line 12, insert the following new paragraph (and redesignate the succeeding paragraphs accordingly):

(f) of the total amount authorized under section 1 category (6) not less than $94,900,000 shall be available for "Energy Research and Technology";

Mr. FROEHLICH. Mr. Chairman, my amendment guarantees that not less than $94,900,000 of the appropriations authorized for section 1, category 6 will be spent on energy research and technology. I offer this amendment to protect the integrity of our national commitment to energy self-sufficiency in the years ahead. Under the research applied to national needs (RANN) program, or category 6 of section 1, the President has recommended an appropriation of $148,900,000 with $94,900,000 of that money going to energy research and technology efforts, the remainder to be divided among four other research areas.

The committee has recommended an authorization for category 6 of $139,100,000, or $9,800,000 less than the administration has recommended. The discretion as to where these cuts will be made among RANN programs under category 6 will be left to the National Science Foundation. In other words, the total $9,800,000 reduction could be made in the energy research and technology field, leaving the other RANN programs intact.

I recommend this amendment to my colleagues in order to guarantee that the funding authorized under category 6 clearly reflects a commitment to solving our most urgent national need—the need for abundant energy in the years to come. This is a simple matter of priorities. The administration has wisely chosen to place the emphasis of the RANN program on solving our energy problems and improving our energy technology. Despite the recommendations of the committee, Congress must guarantee that the emphasis on energy remains. This is not a question to be resolved by more bureaucratic decisionmaking. It is a question which can be resolved right here by each of us, as representatives of nearly half a million Americans.

The RANN program is particularly suited to solving energy problems and advancing energy technology because its very purpose is to direct research toward specific problems of national importance with the objective of finding practical solutions to them. I can hardly imagine any problem of greater importance than energy. The $94,900,000 will be divided among efforts to advance solar and geothermal research, energy conversion and storage, energy systems, resources, fuel transportation and advanced automotive propulsion. A $9,800,000 cut in our commitment to these energy related fields of research and technology application would be a devastating blow. If cuts must be made, they should come from other RANN programs which must take a second priority to energy.

I am sure that few of my colleagues realized that past research authorizations and appropriations would go to studies of such importance as the perspiration odor of Australian aborigines, Polish bisexual frogs, continuity and change in Pacific Northwest belief systems or Burmese ants. I do not believe that these projects represent a responsible spending of the taxpayers' money and I am quite sure that the taxpayers do not think they do either.

This amendment will authorize appropriations for research where it is most needed to do the most good for the greatest number of people. It will mark a real commitment to energy self-sufficiency in the years ahead. If cuts must be made in the RANN program in order to fund other categories under section 1, then let us make sure that reductions in RANN spending still do not detract from energy research and technology efforts.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Wisconsin (Mr. FROEHLICH).

The amendment was rejected.

AMENDMENT OFFERED BY MR. RONCALLO OF NEW YORK

Mr. RONCALLO of New York. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. RONCALLO of New York: On Page 8, insert after line 11 the following new section:

SEC. 8. No funds—

(1) authorized to be appropriated under this Act to the National Science Foundation for fiscal year ending June 30, 1975, or

(2) heretofore appropriated to the National Science Foundation and remaining available to it for obligation and expenditure, may be used to conduct or support research in the United States or abroad on a human fetus which has been removed from the womb and which has a beating heart, unless such research is for the purpose of insuring the survival of that fetus.

Redesignate the succeeding sections accordingly.

Mr. TEAGUE. Mr. Chairman, will the gentleman yield for an announcement?

Mr. RONCALLO of New York. I yield to the gentleman from Texas.

CHANGE IN LEGISLATIVE PROGRAM

Mr. TEAGUE. I simply announce that the next bill will not be brought up this afternoon. It will be brought up next week. This will be the last bill.

Mr. RONCALLO of New York. Mr. Chairman, I will not use the whole 5 minutes for myself, because the Members voted overwhelmingly for similar amendments in the last session and are very familiar with the issues at stake. I will therefore use my time to make some legislative history.

The language of this amendment is nearly identical to that of section 10 of Public Law 93-96. There are only two differences besides the change of date which indicates the new fiscal year. The current amendment refers to "a human fetus which has been removed from the womb" in lieu of "which is outside the womb of its mother" in order to quiet the concerns of those who feared that the former language might be misconstrued to in some way restrict the termination of an ectopic, abdominal or other extra-uterine pregnancy. The new langauge makes it clear that no such restriction should be implied.

The second change adds to the legislative language the proviso that the restriction on the use of funds does not apply if "such research is for the purpose of insuring the survival of that fetus." I would not want to miss any chance, no matter how remote, of saving the life of any human child.

I am told that the National Science Foundation is not currently funding research directly on human fetuses, living or dead, but rather that it supports tissue and organ banks from which human research materials may be drawn. These materials may be used for the purpose of obtaining culture media and for the study or transplantation of fetal organs. Nobody has ever claimed that it is necessary to surgically remove these parts from the fetus while its heart is still beating for the simple reason that the parts of the body survive the heartbeat for varying lengths of time. In this respect, therefore, the amendment should be construed to require the Foundation to withhold funds from any institution which persists in using live fetuses for this purpose.

Also, this is not an antiabortion amendment in any way, shape or form. My own personal views on that subject are well known, but they are not at issue today. My amendment is only in effect from the time the fetus leaves the womb until it is brought to survivability or dies of its own accord. There is no feminist issue here, no liberal versus conservative issue, just a compassionate one. We are talking about a human fetus over which its mother no longer has any control, if indeed she ever had any to begin with. It is separate, distinct, and its body is no

more at the disposal of researchers because it is going to die, than the body of anyone in this Chamber today.

Although it was agreed that a permanent ban on NSF support for live fetus research would be germane to this bill, I have limited this amendment to fiscal year 1975 at the request of members of the committee with whom I have been in contact. They told me that the Foundation has been able to live with the restriction this year without any trouble, but they preferred not to go for a permanent restriction at this time. I have yielded to their wishes in spirit of accommodation and hope that this will give a chance for the Commerce Committee to act on separate legislation for a Government-wide permanent ban which I have introduced with nearly 40 cosponsors.

I am in strong support of the bill as a whole and the fine work the Foundation is doing. My amendment will see to it that grantees accepting funds under its programs will conduct their research in an ethical manner.

I have attempted to keep this statement factual, rather than focus on the emotionalism which others have tried to inject into this issue in opposition to my amendment. In particular the gentlewoman from New York has raised several issues through a "Dear Colleague" letter and a special order which I am sure she will repeat today on the floor. The Members are entitled to an answer to her concerns on their merits or lack thereof.

First of all, it is not my amendment which is irrelevant; it is the commentary of the gentlewoman which is not germane to this bill. As she herself said, the NSF does not fund such research. At least I agree that it does not intentionally do so, but as I noted earlier in my remarks, it does support fetal tissue and organ banks into which there is no need to deposit materials taken from fetuses while there is still a heartbeat present. All her other remarks relate to research which may or may not be supported by NIH and are not at issue here today.

She states that the amendment is vague and poorly worded. I extended her the courtesy of an advance copy, but her letter and special order were obviously prepared before she had the benefit of seeing the new wording. I earlier mentioned that the amendment includes a specific provision permitting research attempting to save the life of the particular infant involved, no matter how experimental. I will not get engaged in this debate on the question of what is life. That is a subject more properly handled in a debate on abortion which I hope we will have in the House in the near future, but it too is not at issue here.

I have deliberately left the word "live" out of my amendment, although I personally believe there is no question about the basic humanity of the fetus, be it still unborn or untimely ripped from the womb. I have instead substituted a clear and simple test to determine whether nontherapeutic research may be performed. If the aborted fetus does not have a beating heart, research is permitted; if it does have a beating heart, research is not permitted. What could be less vague than that? There has also been some concern about my use of the word "fetus" instead of infant. I use this language, because that is the word used by the researchers in their journals up to the point of viability. Personally, I do not feel there is any difference, but I am using their term so they will be sure to understand what is meant.

The gentlewoman then goes into a whole litany of research on diseases and abnormalities. I cannot find any of these items which would be prevented by my amendment. I do have strong feelings about experimentation on the fetus in utero in contemplation of an abortion, but here as well such research would not be affected by passage of this legislation. Nor would aminocentesis; nor would fetal monitoring during labor. The period during which this amendment is in effect is limited to the time after the fetus is delivered and before it is brought to viability or dies of its own accord. As my colleague from New York has told you, research on live, delivered, previable fetuses is very rare. If so, how could all these advances which she and I both laud have been made through this technique? They have nothing to do with this simply because there was no real need to invade the bodies of these fetuses while their hearts were still beating. The organs and tissues still live after the heart stops beating. The gentlewoman has stated that hysterotemies are rare as well. This just is not so. There have been thousands of such abortions simply because it is dangerous to the mother to terminate a late-term pregnancy in any other manner. The reason there is not much live fetus research despite the availability of potential subjects is that most researchers abhor such invasions of human life just as much as the Members of this Congress.

There may be an isolated case where it might be necessary to have circulation in order to prove a point.

The last case like that I heard about took place overseas and was conducted by a researcher supported by NIH, not NSF. The point he was trying to make involved whether a sugar substitute could be metabolized by the fetus. To do this he decapitated them while they were still alive, and stuck tubes into the severed heads. Even here he could, instead, have waited until just after the hearts had stopped. As for me and mankind, I will stick to saccharine rather than condone vivisection on live human fetuses.

The gentlewoman also complained that four Boston doctors were indicted for fetal research. Let us look at the facts. Dr. Kenneth Edelin is accused of performing an abortion on a viable child, not a previable fetus. This was a baby that could have grown up to and contributed to society. He might have been sitting in this Chamber some years hence, had it not been for his unnecessary death. He had already reached the point where available techniques could have saved his life. This amendment does not apply in any case, as there are sufficient State laws preventing murder.

This would be a good place to take note that the age of viability is steadily dropping. Babies as young as 19 weeks have lived. If the doctors would spend more time using the techniques already at hand and expanding the frontiers of knowledge through experimental research designed in an attempt to bring its subject to viability, we would be much better off and lives of premature babies could be saved. The doctor does not know if he can save the child until he tries. In Bakersfield, Calif., a doctor was indicted for ordering that life-saving techniques not be applied to a viable aborted baby. His nurse, thank goodness, did not follow his telephoned instructions and the baby is currently living a normal, healthy life.

The other three doctors in Boston were indicted for intra-uterine experimentation, which once again is not at issue here.

The gentlewoman complains that there have been no congressional hearings on this subject. On April 11, 1973, I introduced H.R. 6849 which would make live fetus research a Federal crime if the taxpayers' funds were involved. Last May 15, I introduced H.R. 7850 which would ban the use of appropriated funds for this purpose on a Governmentwide basis. The bills now have about 35 cosponsors apiece, but the committees have still refused to hold hearings. I would be happy to join with the gentlewoman in writing the chairmen of the Judiciary and Commerce Committees, respectively, requesting prompt hearings on my bills. Then we both could present our views and give this House a chance to act on this issue once and for all.

To answer another of the gentlewoman's concerns, I will state for the record as part of the legislative history of this bill that it is not intended that my amendment be construed to prevent routine diagnostic or identification procedures such as blood-typing which can be safely performed on any premature infant, viable or not.

She has somehow been able to get hold of NIH's revised guidelines on the protection of human subjects. I invite her to let me see a copy, because there were many shortcomings in their original draft. She obviously has an inside track to the administration which I am not fortunate enough to share. It is interesting to note, however, that even NIH is talking about human subjects when they are talking about research on human fetuses. I still cannot understand why the gentlewoman persists in bringing NIH into the picture on a National Science Foundation authorization. NSF has not had any problems doing their fine work under the current restriction. I understand they have no objection to this 1-year amendment as currently worded. If the gentlewoman is going to be an advocate for NIH, let her save her comments for the conference report on H.R. 7724 which I hope we will have before us in the near future.

Let us stick to NSF and the very limited scope of this amendment and not get hung up in a discussion of NIH, abortion and intra-uterine research. The only issue here today is the separate delivered previable fetus which still has a heartbeat. He is going to die. So are we all. So are our aged. So are our terminally ill. So are our mentally retarded. None of us are at the beck and call of society for invasive research without our consent. If we are incapable of giving such consent, the very humanity which makes

man different from the lower animals dictates that society leave us alone.

I cannot close without noting that society loses, rather than gains, when it moves toward a utilitarian view of life and permits the nonconsentual invasion of its own kind in the name of science. I urge the House to adopt this amendment as it has in the past and once again demonstrate our humanitarianism to the American people.

Mr. HUNGATE. Mr. Chairman, I rise in support of the amendment of the gentleman from New York, and urge the committee and the House to accept it.

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

Mr. RONCALLO of New York. I yield to the gentleman from Indiana.

Mr. HILLIS. Mr. Chairman, I wish to compliment the gentleman from New York on offering this amendment to the National Science Foundation Authorization Act.

It is the intent of the Congress to guard the dignity of human life by prohibiting the use of Federal funds for live fetus research. This body proved this intent last May by voting 354 yeas to 9 nays to approve an amendment, identical to that offered today, to H.R. 7724 which established a program of biomedical research fellowships. In this instance the House was successful in clarifying the intent that HEW funds could not be used for live fetus research. However, other agencies besides HEW fund research in the life sciences. The House needs to reaffirm its position that the use of funds for live fetus research is unethical.

I believe that a vote in favor of the Roncallo amendment to this act will serve as an affirmation or extension of the intent of this body to continue to preserve the dignity of human life.

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

Mr. RONCALLO of New York. I yield to the gentleman from Maryland.

Mr. HOGAN. Mr. Chairman, I rise in support of the amendment being offered by my esteemed colleague from New York (Mr. RONCALLO) which would prohibit authorization of funds for experimenting on a living infant outside of the mother's womb.

It is not accurate to refer to this person as a "fetus" because that term relates only to a child in the womb. Once the child is alive outside the womb it is no longer a fetus.

The House has clearly demonstrated its disapproval of fetal research in the first session of this Congress when it overwhelmingly adopted an amendment to the Biomedical Research Act, which put an outright ban on live fetus research. Three weeks later we adopted a similar amendment to the National Science Foundation bill.

I believe it is imperative that Congress take every opportunuity to express its conviction that human life, before and after birth, has value and must be protected. I am hopeful that Congress will eventually approve my constitutional amendment, which the gentleman from New York (Mr. RONCALLO) is also staunchly supporting, to overturn the Supreme Court's decision that legalized abortion across the country up to the moment of birth. Meanwhile, we must take every opportunity to stop the attack on the value and dignity of each human being.

I would like to call to the attention of my colleagues an incident that happened recently. On April 10, in the Washington Post there was a photograph of a mother and father bringing home 3-month-old Sherri Lynn Scorse, born 4 months premature, in the second trimester of pregnancy. She had been left to die in a crib after premature birth. Yet she lived. This is proof that we are dealing with a live human being at a stage much earlier than birth. To permit the experimentation on a live human being is another manifestation of the growing disregard in this country for the sanctity of human life.

Recognition of the unborn baby as a living human person within the womb is supported by the common law. The precedents of property, tort and welfare law have long recognized the legal rights of the unborn person. The dean of tort law, Professor Prosser, states—

> All writers who have discussed the problem have joined . . . in maintaining that the unborn child in the path of an automobile is as much a person in the street as the mother.—(W. Prosser, *Handbook of the Law of Torts*, Sec. 56, at 355 (3rd ed. 1964)).

Ample legal precedent in tort, property, and equity cases uphold the legal rights of the unborn child as a person separate and distinct from the mother in whose womb he is couched. How can we fail to protect him from this experimentation on his body against his will.

The unborn child, under the law of property can, among other things, inherit and own an estate, be a tenant-in-common with his mother, be an actual income recipient prior to birth, can sue in tort, can have his legal rights protected against a mother who refuses a blood transfusion to save his life.

The new liberalized attitude toward abortion presents a dilemma. How can it be a crime for a woman to misappropriate the estate of her unborn child, and yet not be a crime for her to kill that child? Can a woman, who has inherited an estate as a tenant-in-common with her unborn child, increase her own estate 100 percent simply by killing the child? Will the law, which has recognized the unborn child as an actual income recipient prior to birth, allow the child's heir, the mother, to kill the child for her own financial gain? These few possibilities are but a sample of the legal maze that the January 22, 1973, proabortion decision of the Supreme Court has created.

If the unborn baby can be tortiously injured, can inherit and be a beneficiary of a trust, can be represented by a guardian ad litem seeking support payments, and can be preferred to the parents' religious scruples against blood transfusions, how could we possibly allow that same human being to be used for experimentation?

We must uphold the rights of these human beings. They are not capable of giving consent to their being used as experimental subjects. It rests in the hands of Congress, therefore, to insure the equal protection of their rights.

This is not a time for half measures, but a time for the Members of this body to indicate their respect for human life. It is a time for Congress to demonstrate clearly that it will not fund research of this sort. If we fail to prohibit this research expressly, we will be contributing to the disregard for life expressed by the Supreme Court. Let us prove that America is not morally bankrupt but that we still cherish human life.

Mr. Chairman, I urge adoption of this amendment.

Ms. ABZUG. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, I included rather extensive remarks on the subject in yesterday's RECORD on pages 11743–11746. The amendment, as the mover has just indicated, is irrelevant because it tells the National Science Foundation that it may not do something that it has not done and does not intend to do. It purports to ban research on live fetuses outside the womb, but its language does not conform with any medical definition of "live fetus."

Mr. Chairman, I want to say one thing to the Members of this House. If we continue to support these emotional and unscientific amendments, we place upon ourselves the responsibility for preventing research which is very necessary for matters relating to cancer, leukemia, birth defects, and a great variety of other diseases; survival of the premature infant and the health of the mother. For example, fetal research is essential to preventing hyaline membrane disease, the condition that caused the death of the infant son of President and Mrs. Kennedy and is the leading cause of deaths in infancy. Such great medical advances as the development of polio and rubella vaccines and fertility drugs and treatment for Rh incompatability could not have occurred without fetal research.

Mr. Chairman, the mover of this amendment would have us believe that it does not matter; it is just a way in which he can repeat a philosophical, nonmedical, nonscientific position which he holds. The fact is, since we started with these Roncallo amendments and other amendments, and since Congress permitted them to be approved in the last session of Congress, laws restricting fetal research have been passed in California, Cleveland, and are pending in Massachusetts and New York.

In Boston, four physicians were indicted in connection with studies that they performed on dead fetal tissue. The studies involved a comparison of various antibiotics administered to 33 women. The fetal tissues were anaylzed to determine the results. The four physicians were indicted by the county grand jury on charges of illegal dissection under an early 19th-century statute pertaining originally to grave robbery.

Mr. Chairman, it should be noted that in former centuries, medical researchers, sometimes surreptitiously, had obtained human cadavers in order to gather basic information about physiology and disease processes. Now, of course, autopsies are routinely performed, and pathology research has provided the fundamental core of knowledge upon which modern medical advances have been based.

The four indictments are a throwback to the oppressive and fantasy-ridden at-

mosphere of the Salem witch hunts, and are viewed with shocked horror by medical researchers and lay people who know how indispensable fetal research is in preventing and curing a great variety of diseases.

Mr. Chairman, the New York Times reported, in a story on April 20, 1974, by Dr. Lawrence K. Altman, that these curbs are now affecting research on cancer, birth defects, aging, the common cold, and other major health problems.

Since the Boston indictments I have contacted a significant number of researchers and doctors all over this country. Dr. Stanley James, who is a pediatrician on the staff of Columbia Presbyterian Medical Center in my district and chairman of the American Academy of Pediatrics Committee on Fetus and Newborn, has indicated that if these bans continue, the chilling effect will become so enormous that they are going to have to cease doing any type of research on development of fertility drugs which have helped so many women to conceive and give birth.

Mr. Chairman, no hearings have been held in Congress on this subject. In contrast, the National Institutes of Health have prepared regulations dealing with the issue of fetal research that have been widely circulated and discussed and are now being revised on the basis of medical and other informed comment.

Mr. Chairman, there is no reason to legislate on this issue; there is none whatsoever.

After the last amendment that the gentleman from New York (Mr. RONCALLO) urged upon this House and had this House pass, the NIH determined that of 15,000 grants, only two or three dealt with the so-called previable human fetuses, and these studies have been discontinued.

The CHAIRMAN. The time of the gentlewoman from New York (Ms. ABZUG) has expired.

(By unanimous consent, Ms. ABZUG was allowed to proceed for 2 additional minutes.)

Ms. ABZUG. Mr. Chairman, in the name of protecting life, this amendment and other restrictive laws are doing just the opposite. They are making it more difficult for doctors and pediatricians to bring healthy babies into the world, to keep them healthy and alive.

There is no necessity for the House to act on this kind of amendment. We have a right to be concerned with the ethical issues involved in medical research, but we must first fully understand all of its implications.

The amendment, for example, equates a beating heart with life; yet this does not conform with the accepted medical definition.

Mr. Chairman, I happen to be the mother of two grown daughters, whose births were preceded by several miscarriages. I happen to be the mother of two wonderful grown daughters who were brought on this Earth because of increased understanding accomplished through research by hysterectomies. I have an enormous personal appreciation of what medical advances have accomplished. I would not like to see the benefits of such progress denied to other women, to my daughters, and to all children.

I believe that in the year 1974, in the most medically advanced Nation in the world, it would be shocking and totally inappropriate for the Members of this House to take such a backward action. The chilling effect of these amendments have been enormous.

Mr. Chairman, I refer the Members to the statement which I have put into the RECORD. I will refer the Members to many articles which have been written in the New York Times, including that of last Saturday.

This issue is being confused. Emotionalism is being used in order to confuse this House as to what is the issue before us.

Mr. Chairman, I urge the Members to defeat this amendment.

Mr. ZWACH. Mr. Chairman, once again we have the opportunity to express our disapproval of the usage of any National Science Foundation moneys to conduct or support research in the United States or abroad on a human fetus which is outside the womb of its mother and which has a beating heart unless such research is for the purpose of insuring the survival of that fetus.

I would like to commend my distinguished colleague from New York (Mr. RONCALLO) for his efforts in this area. His leadership is greatly appreciated.

The 1974 NSF authorization contains similar language to the amendment before this body. The Roncallo amendment passed by an overwhelming 288 to 73 House vote last year and was signed into law along with the authorizing legislation. We must add the language once again this year.

We need a blanket coverage to pertain to all agencies that receive Federal funds. But until we can get such a law, we will continue to add "pro-life" language to each piece of pertinent legislation.

Mr. RONCALLO, in a "Dear Colleague" letter in regard to one of his fetus research bills said the bill was not an antiabortion bill. He added that no matter what our feelings on the Supreme Court decision on that subject, we can all share equally in our revulsion at the practices this bill would outlaw. Certainly if we can get upset about vivisection of dogs and other laboratory animals, we can take steps to protect our own kind, he concluded.

If live-fetus research is not antiabortion legislation, it is at least "pro-life" in nature. Research on live human fetuses certainly does not lend itself to prolonging life. And, life is all we have. I want to protect it.

I strongly support the Roncallo amendment to the NSF authorization and urge my fellow Members to vote for this provision.

Mr. DOMINICK V. DANIELS. Mr. Chairman, I rise to support the amendment offered by Mr. RONCALLO of New York which would continue the ban on live fetus research.

We are involved with the issue of life itself. And in acknowledging that there is life in that fetus, we must say "no to medical science, you cannot use that life for experimentation; no to medical science, you cannot declare there is no life there, no we will not permit any Federal money to be used in this endeavor."

Mr. Chairman, I strongly urge that my colleagues join me in supporting this legislation.

AMENDMENT OFFERED BY MR. SYMINGTON AS A SUBSTITUTE FOR AMENDMENT OFFERED BY MR. RONCALLO OF NEW YORK

Mr. SYMINGTON. Mr. Chairman, I offer an amendment as a substitute for the amendment offered by the gentleman from New York (Mr. RONCALLO).

The Clerk read as follows:

Amendment offered by Mr. SYMINGTON as a substitute for the amendment offered by Mr. RONCALLO of New York: On page 8, insert after line 11 the following new section:

SEC. 8. No funds—

(1) authorized to be appropriated under this Act to the National Science Foundation for fiscal year ending June 30, 1975, or

(2) heretofore appropriated to the National Science Foundation and remaining available to it for obligation and expenditure, may be used to conduct or support research in the United States or abroad to conduct research on a human fetus which has been removed from the work and which has a beating heart, unless such research is for the purpose of insuring the survival of that fetus or is otherwise consistent with the duties, responsibilities, and ethics of the medical profession under the Constitution and laws of the United States.

Redesignate the succeeding sections accordingly.

Mr. SYMINGTON. Mr. Chairman, the gentleman from New York (Mr. RONCALLO) and I were discussing this matter together, and I think the gentleman recognizes that I really have no objection to his proposed language. It is quite appropriate as far as it goes.

However, it does not go quite far enough, because it is clear to me that while the effort to save the life of an aborted fetus is the No. 1 concern, not only of the medical profession but of our society and our law, there could be research done in no way inimical to that objective during the course of the remainder of the life of that fetus should it die which is directly relevant to the health, perhaps, of the twin in the womb or the child to come later or the health of the mother.

Standing alone, the amendment offered by the gentleman from New York would prevent a doctor from doing anything he was not absolutely sure was directly related to saving the life of the fetus, even though he might be very sure in his own mind what he planned to do would in no way injure the prospects of the fetus but might tell him a great deal about the next child and about the mother's health and about disease generally.

I am not sure that the suggestion that the examination of the tissue of a fetus

which had just died always provides inevitably the same kind of information that one would get from the fetus with a beating heart.

I am grateful for the chance to speak to this House on this subject. I suppose I have not had a more trying time in my legislative life than in answering the questions of people of good will and good heart and good hope for the moral standards of our country and who reflect strong views in their correspondence. However, we have to look at these matters not only from the standpoint of conscience but from an educated conscience, an understanding that what we are about to do actually may curtail the prospects for better medicine and may actually constrain the doctor from his ability to save lives to come.

I think it is essential that the House recognize the distinction. Indeed I felt that the gentleman from New York nearly did himself, but at the last minute he decided to proceed with his own amendment.

Mr. RONCALLO of New York. Will the gentleman yield?

Mr. SYMINGTON. I am happy to yield.

Mr. RONCALLO of New York. Mr. Chairman, I am concerned that the problem of the substitute amendment as presented would give sanction to at least two cases which are presently pending in this country, one case in California in which a doctor by the name of Ramirez allegedly aborted a fetus which was perhaps some 26 weeks old and then told the nurses not to give the baby sufficient oxygen. They refused, and that baby continues to live today. The other is the Boston case——

Mr. SYMINGTON. May I respond to the first point so I can answer as we go?

I would not consider that consistent with the duties, responsibilities, and ethics of the medical profession under the laws and the Constitution of the United States.

Mr. RONCALLO of New York. Apparently the Supreme Court does, because under their interpretation of the cases as decided last year they considered a fetus is a nonperson under the 14th amendment. So that is the problem we are faced with and that is why we need some guidelines here.

Mr. SYMINGTON. I think the gentleman is construing a decision of the Court to support his point, but I do not think it does so. If the action that the gentleman described were brought to the attention of the Court, they would, I should think, find that it was not consistent with the laws and the Constitution of the United States.

Mr. RONCALLO of New York. If the gentleman will continue to yield, the second case pending, of course, is that in Boston in which a Dr. Kenneth Edelin allegedly is charged with manslaughter for putting to death a baby that was between 22 and 24 weeks old, again without any further guidelines.

Medical ethics are not enough. There is a trend in a portion of the medical community today which says that the end justifies the means. This is what we are trying to control with my amendment. The substitute amendment offered by the gentleman from Missouri would say to those doing the research that they cannot perform live fetus research unless they themselves think they should.

Nor is the Constitution sufficient protection. That document provides the basic form of our democracy, but under it the Congress has the responsibility to legislate. There is no restriction preventing us from passing a law which goes further in the direction of civil rights than the Constitution demands. I believe the Supreme Court erred when they decided that the life of the fetus in utero could not be protected in the early stages of pregnancy, but they in no way said that we could not legislate protection once that fetus is separate from its mother. That is what we are trying to do today and what the gentleman's substitute would completely subvert. Constitutional guarantees are obviously insufficient in this case, and the present laws of the United States, with the sole exception of last year's amendment which will expire in a few months, do not even address the subject. Despite its use of my language at the outset, a vote for the substitute is a vote in favor of invasive research on live human fetuses.

Mr. SYMINGTON. An alleged action is now being tested under law.

The CHAIRMAN. The time of the gentleman has expired.

(By unanimous consent, Mr. SYMINGTON was allowed to proceed for 1 additional minute.)

Mr. SYMINGTON. If I may proceed, Mr. RONCALLO, perhaps there will be other opportunities for you to respond.

I just want to leave it to the Members of the House as to whether it is unsafe to incorporate into legislation of this kind the language, "under the Constitution of the United States and the laws of the United States," for fear that in some mysterious fashion the Constitution of the United States will subvert our intent, and that the laws of the United States are insufficient to protect the people.

Mr. HOGAN. Mr. Chairman, I rise in strong opposition to the amendment offered by the gentleman from Missouri (Mr. SYMINGTON). If one listened closely to what the gentleman from Missouri has said in support of his amendment, then one realizes that the gentleman's amendment totally thwarts the intent of the Roncallo amendment.

The gentleman from Missouri says that we should in fact experiment on a human being whose heart is still beating. The gentleman says you do not get sufficient research benefit after it has died. The gentleman says—and he adds to the Roncallo amendment—that the research would be forbidden only if it was inconsistent with the ethics of the medical profession, or in conflict with the Constitution.

I submit that the reason that this is the subject of debate on the floor of the House today is precisely because of the ethics of the medical profession, which has brought us to a point where medical doctors no longer acknowledge their responsibility to preserve life, but fully acknowledge their authority to destroy life. That's the status of medical ethics in this country today.

The Constitution, as interpreted by the Supreme Court, prior to January 22, 1973, historically has allowed unborn human beings legal protection.

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

Mr. HOGAN. I will when I conclude my statement.

As of January 22 last year our Supreme Court no longer affords that protection. The Supreme Court now says that the unborn life—although it is life—it is life that has no value, and therefore it is not subject to constitutional protection.

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

Mr. HOGAN. I will yield to the gentleman from Missouri if I have time when I have concluded. I will be happy to yield to the gentleman from Missouri.

Mr. Chairman, that is precisely the problem which we are facing today, which now confronts all of us.

Mr. Chairman, our colleagues might think that we are today debating the issue of abortion. Let me assure the Members that we are not. We really misspeak ourselves when we use the term "fetus," or "live fetus outside the mother's body," because, by definition, the fetus is inside the woman's body. Once it is alive outside the woman's body, it is literally, without question, a baby. When it is alive outside the woman's body it is a human being. It is a citizen of the United States. And it ought to be entitled to all the protection which we other citizens of the United States enjoy. And since that human being is incapable of giving knowledgeable consent to allow medical experimentation on his or her own body, then we, the Congress of the United States, have a responsibility to insure that that protection is given to that child outside of the mother's body.

That is why we should reject the amendment offered by the gentleman from Missouri as a substitute for the amendment offered by the gentleman from New York (Mr. RONCALLO).

Mr. Chairman, I urge support of the amendment as offered originally by the gentleman from New York (Mr. RONCALLO).

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

Mr. HOGAN. I yield to the gentleman from Missouri.

Mr. SYMINGTON. Mr. Chairman, I would ask the gentleman from Maryland if the gentleman from Maryland had a brother, and perhaps the gentleman does, would the gentleman object—and you both of course being citizens—to, in the effort to save his life, to determine whether there was something at the same time in your condition that was relevant

to your brother's? And am I suggesting anything different?

Mr. HOGAN. Yes, the gentleman certainly is.

Mr. Chairman, I would like to think that I would be willing to subject myself to medical experimentation to save the life of my brother, but I would like to make that decision for myself. I would not like to have someone else make that decision for me. That is what the gentleman's amendment proposes to do.

Mr. SYMINGTON. The gentleman from Maryland has referred to the word "experimentation," which I never used, and I voted against it the last time it appeared in this House. I am making the distinction between that of experimentation and research, and very clearly that research would be weighing, taking blood samples, making measurements. Such things would not be directly conducive to saving the life of the fetus, but could have a great impact on the life of the brother, sister, mother, or other members of the family of that fetus.

Mr. HOGAN. In any event, whether the gentleman calls it research or experimentation is a semantic distinction. In either event one is performing medical research on a human being without his consent, and that is what I object to.

Ms. ABZUG. Mr. Chairman, I rise in opposition to the amendment in the nature of a substitute offered by the gentleman from Missouri (Mr. SYMINGTON) to the amendment offered by the gentleman from New York (Mr. RONCALLO).

Mr. DAVIS of Georgia. Mr. Chairman, will the gentlewoman yield?

Ms. ABZUG. I yield to the gentleman from Georgia.

Mr. DAVIS of Georgia. I thank the gentlewoman for yielding.

I should like to ask, without it being charged against the time of the gentlewoman from New York, that the Roncallo amendment be reread by the Clerk. I state my purpose as being this: In the debate it has come out that if a fetus is within the womb of its mother, it is a fetus; if it is outside of the womb of its mother, it is not a fetus.

Mr. Chairman, I ask unanimous consent that the Roncallo amendment be read again.

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

There was no objection.

The Clerk reread the amendment offered by the gentleman from New York (Mr. RONCALLO).

Ms. ABZUG. Mr. Chairman, I think that the amendment offered by the gentleman from Missouri (Mr. SYMINGTON)—although I started to say I understand his motives, and the debate, and the discussion that followed thereafter—really points out the incorrectness of our acting at this time. The truth is that it is a very rare event in the United States to get an abortus with a beating heart. Only when an abortion is performed by hysterotomy is such an abortus delivered. According to all of the information that I have received—and I am not a doctor—abortions are not performed by hysterotomy in this country, I believe, except for one medical center in this country. The preferred abortion techniques are curettage, saline injection, or injection of prostaglandin. In none of these methods does the abortus emerge with a beating heart.

The doctors illustrate very clearly the reason why we at this moment in this House should not act. We may be standing in the way of important scientific and medical advances. The NIH, after months of study, is at this moment dealing with these very complicated questions. I am not suggesting that we do not have a right to have some say about the ethics to show that we are concerned with the way in which we should deal with the problems that affect research. We know that there are human sensibilities, and we should have ethics, and we should respect them; but we should not vote a complete ban on studies, which is what this would cause. Such procedures, by the way, as were pointed out here as done customarily on living individuals of any age, is the kind of thing that we today will prevent if we pass this amendment, even as amended by the gentleman from Missouri (Mr. SYMINGTON). The drawing of body fluids, the obtaining of cell samples, and the like, would all be prevented. We would again be responsible—as I am sure none of us want to, regardless of our opinions on all of these subjects—for being the ones who are causing missed opportunities to advance knowledge. We would be responding by compromising human rights and dignity.

The abortus is usually dead tissue. The Boston doctors were indicted for having worked on dead tissue, not on any living tissue. And it is as a result of this kind of amendment that all over the country doctors and other people are being moved emotionally to act in a way they would not normally.

I make only one request of this House. Vote down the Roncallo amendment and vote down the amendment offered by the gentleman from Missouri (Mr. SYMINGTON) and let us get the regulations of the NIH which they are now preparing on safeguards and procedures which must be used on studies dealing with fetuses, abortuses, pregnant women, the children, and other groups. They are preparing these regulations in consultation with medical researchers and doctors and also lay people, including those in this room who may be concerned with the ethics and religion involved.

My appeal to this House today is that I beg the Members not to stand in the way of saving many human lives by passing a mindless, unthought-out amendment, even as amended with good intentions, and let us see those regulations and deal with this matter after hearings can be held and after we develop the kind of bill we can be proud of and not one which will stand in the way of progress. In the name of humanity I ask the Members to vote down the Roncallo amendment and the amendment offered by the gentleman from Missouri (Mr. SYMINGTON).

Mr. TEAGUE. Mr. Chairman, I know full well the majority of this House have committed themselves to supporting the amendment offered by the gentleman from New York. But it seems to me this subject is so much more important than we have time in which to consider it today. Surely this House should not make this a law without hearings and without having all the information available.

I did not know the gentleman was going to offer this amendment, nor did I know it in the committee. The only thing I knew was the National Science Foundation told me they had not and were not going to spend a penny on this.

If there is a bill in the Congress—and the gentleman says there is—in the Interstate and Foreign Commerce Committee, surely the proper way to consider it is to have hearings, and then hear the NIH on the matter as well as others. But to do this in such a way as we would if we vote on this amendment it seems to me is not only unfortunate for the people of this country but also for the Members of this House.

I hope next year the gentleman can get the Congress to hold hearings. I promise him if he does not—and if he needs some help on this—we will talk to NIH and take it up. But it seems to me it is too important to vote on it with the little consideration we can give it here today.

Mr. DAVIS of Georgia. Mr. Chairman, I move to strike the last word.

Mr. Chairman, I would like to say this. My esteemed colleague, the gentleman from New York (Mr. RONCALLO), is not a member of our committee. This is a function which if it were to be found going on anywhere in the Government I would certainly think would be found in the National Institutes of Health. Certainly we know no such research is being conducted nor is it intended to be conducted in the National Science Foundation.

It is small wonder we have not had hearings on it. We do not have any jurisdiction over it. If any committee of the House has jurisdiction over a question of this kind it is the Committee on Interstate and Foreign Commerce which has the overview of the National Institutes of Health. I recognize, as my distinguished chairman, the gentleman from Texas (Mr. TEAGUE) has pointed out, that the gentleman from New York (Mr. RONCALLO), has the support of a majority of the Members of this House. I think he does. While I wish the amendment had not been offered, and while I do not think it is appropriate, I will not object to it at this point.

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

Mr. DAVIS of Georgia. I yield to the gentleman from Ohio.

Mr. MOSHER. Mr. Chairman, reluctantly I join our subcommittee chairman, Mr. DAVIS, in accepting the Roncallo amendment, or preferably the Symington substitute amendment.

I accept personally, but only because the amendment would apply only for 1 year.

In that year, I strongly urge that our Science Committee, or perhaps the Commerce Committee, or both committees, should hold extensive, thorough hearings on this extremely important subject, so that all Members of the Congress and the public at large can better understand the crucial significance, the very serious implications of the Roncallo amendment.

Fortunately, this amendment really will have no impact on the National Science Foundation this year. It is at best irrelevant to NSF's activities. The Foundation does not support live fetus research and has no plans to do so.

Therefore, personally I can rationalize my acceptance of the amendment as a temporary and harmless inhibition on the NSF programs, pending much more thorough consideration.

In fact, the amendment may serve a very useful purpose as a trigger, forcing us to educate ourselves concerning this important subject much more thoroughly.

However, the amendment, as a precedent, can have implications far more serious and detrimental as applied to other agencies, notably the National Institutes of Health.

As I understand it, wisely responsible, carefully controlled research on live human tissues, including those of fetuses, surely can produce extremely valuable new knowledge and new techniques which likely will result in saving many, many human lives, and also will tremendously reduce human suffering. Thus, such research is imperative for the benefit of all humanity, all life.

Therefore, I am convinced that our ultimate national policy must be in strong support of such responsible, humane research.

Mr. RONCALLO knows well the very serious doubts I have concerning this amendment, but because it applies for 1 year only and harmlessly so far as NSF is concerned, I will not ask our colleagues to vote against it at this point.

I accept it on that limited basis, but reserving the right to cast my own personal vote against it, if a rollcall on the amendment is required.

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

Mr. DAVIS of Georgia. I yield to the gentleman from New York.

Mr. WYDLER. Mr. Chairman, the point was made that this may not be the best vehicle for offering this amendment to the particular bill. That may be so, but the fact of the matter is that as the Members know, the gentleman from New York (Mr. RONCALLO) offered this amendment last year in the more appropriate committees of the House and the Congress itself has had a chance to take some kind of action, which seems to me to be very important to take.

The fact that as we stand here today they did not take action and this Congress is being called on to speak out and encourage the action to be taken by possibly the more appropriate committee, so I recommend to the Members of the House that they have an opportunity once again to make clear to the Government that we want action taken and to the other committees of the Congress that we want appropriate action taken and taken now.

I think this vote will give us a clear chance to demonstrate that, not only to the country, but to this Congress.

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

Mr. DAVIS of Georgia. I yield to the gentleman from Florida.

Mr. ROGERS. Mr. Chairman, the Members may be interested in knowing, and maybe some do not, that there is already legislation in conference setting up in effect a blue-ribbon advisory board to do a study for the Congress and for the Government and to report to us on all the ramifications, not only in this area, but in all ethical areas. This is in process and is being pursued now.

The House has already acted. The Senate has acted. We are in conference now and that step is in the proceeding. It has already been stated that this type of work is not being done in the National Science Foundation and is not being done with any Government funds.

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

Mr. DAVIS of Georgia. I yield to the gentleman from New York.

Mr. WYDLER. That is very good. I am glad to know we have at least a Commission to look into it, but the question left here is what is going to be the state of the law in the meantime?

Mr. ROGERS. I think the gentleman has already answered that.

The CHAIRMAN. The time of the gentleman has expired.

Mr. McCORMACK. Mr. Chairman, I move to strike the requisite number of words.

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

Mr. McCORMACK. I yield to the gentleman from Missouri.

Mr. SYMINGTON. I thank the gentleman. I think it is appropriate that we vote. I want the Members here to recognize that I have not changed one word of the amendment of the gentleman from New York (Mr. RONCALLO). The Roncallo amendment is absolutely intact as is its No. 1 objective to see that no research done on the unborn fetus endangers its life.

All I have done is added the words:

or is otherwise consistent with the duties, responsibilities, and ethics of the medical profession under the Constitution and laws of the United States.

Now, as we vote on this question, let us not let our message to the medical profession be, "We do not trust you." More importantly, let not our message to the people of the United States be that we are afraid of our own laws. Let us rather reflect our faith in the humanity of the medical profession, the sense of the people, and the scope and justice of our laws.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Missouri (Mr. SYMINGTON) as a substitute for the amendment offered by the gentleman from New York (Mr. RONCALLO).

The question was taken; and on a division (demanded by Mr. SYMINGTON) there were—ayes 45; noes 54.

RECORDED VOTE

Mr. SYMINGTON. Mr. Chairman, I demand a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 136, noes 218, answered "present" 2, not voting 7, as follows:

[Roll No. 185]

AYES—136

Adams	Green, Oreg.	Owens
Anderson, Calif.	Griffiths	Pepper
Anderson, Ill.	Hammer-schmidt	Perkins
Ashley	Hansen, Idaho	Poage
Aspin	Hansen, Wash.	Podell
Bell	Harrington	Preyer
Bennett	Hastings	Price, Tex.
Bevill	Hechler, W. Va.	Pritchard
Bingham	Heinz	Rangel
Bolling	Helstoski	Rees
Brademas	Henderson	Reuss
Breckinridge	Hicks	Roberts
Brooks	Holifield	Robison, N.Y.
Brown, Calif.	Holtzman	Rogers
Burke, Calif.	Hosmer	Roncalio, Wyo.
Burleson, Tex.	Howard	Roybal
Burton	Ichord	Seiberling
Camp	Jarman	Sikes
Clay	Jones, Ala.	Sisk
Conyers	Jones, Okla.	Smith, Iowa
Corman	Jordan	Smith, N.Y.
Culver	Kastenmeier	Staggers
Danielson	Koch	Stark
Davis, Ga.	Lehman	Steed
Davis, Wis.	McClory	Steelman
Dickinson	McCormack	Stephens
Diggs	McFall	Studds
Downing	McKay	Symington
Drinan	McKinney	Taylor, N.C.
du Pont	Mahon	Teague
Eckhardt	Mallary	Thompson, N.J.
Esch	Mann	Thomson, Wis.
Eshleman	Mayne	Thornton
Evans, Colo.	Mazzoli	Traxler
Fascell	Meeds	Udall
Findley	Metcalfe	Van Deerlin
Fisher	Mezvinsky	Vander Veen
Flowers	Mink	Ware
Foley	Mitchell, Md.	Wiggins
Ford	Mollohan	Wilson, Charles H., Calif.
Fountain	Moorhead, Pa.	
Fraser	Mosher	Wilson, Charles, Tex.
Frelinghuysen	Moss	Wolff
Fuqua	Nedzi	Wright
Gibbons	Nichols	Yates
Gonzalez	Obey	

NOES—218

Abdnor	Broyhill, N.C.	Conte
Abzug	Broyhill, Va.	Cotter
Addabbo	Burgener	Coughlin
Andrews, N. Dak.	Burke, Fla.	Crane
Annunzio	Burke, Mass.	Cronin
Archer	Burlison, Mo.	Daniel, Dan
Arends	Butler	Daniel, Robert W., Jr.
Armstrong	Byron	Daniels, Dominick V.
Badillo	Carney, Ohio	de la Garza
Bafalis	Carter	Delaney
Baker	Cederberg	Dellums
Barrett	Chamberlain	Denholm
Bauman	Chisholm	Dennis
Beard	Clark	Dent
Bergland	Clausen, Don H.	Derwinski
Biester	Clawson, Del	Dingell
Boggs	Cleveland	Donohue
Boland	Cohen	Dulski
Brasco	Collier	Duncan
Breaux	Collins, Ill.	Edwards, Ala.
Brinkley	Conable	Eilberg
Broomfield	Conlan	

Erlenborn	McCollister	Roush
Fish	McDade	Rousselot
Flood	McEwen	Ruth
Frey	Macdonald	Ryan
Froehlich	Madden	St Germain
Gaydos	Madigan	Sandman
Giaimo	Maraziti	Sarasin
Gilman	Martin, Nebr.	Sarbanes
Ginn	Martin, N.C.	Satterfield
Goldwater	Mathias, Calif.	Scherle
Goodling	Mathis, Ga.	Schneebeli
Grasso	Matsunaga	Sebelius
Green, Pa.	Melcher	Shriver
Gross	Michel	Shuster
Grover	Miller	Skubitz
Gubser	Minish	Snyder
Gude	Minshall, Ohio	Spence
Gunter	Mitchell, N.Y.	Stanton,
Guyer	Mizell	J. William
Hamilton	Moakley	Stanton,
Hanley	Moorhead,	James V.
Hanrahan	Calif.	Steele
Harsha	Morgan	Steiger, Ariz.
Hébert	Murphy, Ill.	Steiger, Wis.
Heckler, Mass.	Murphy, N.Y.	Stratton
Hillis	Murtha	Stuckey
Hinshaw	Natcher	Symms
Hogan	Nelsen	Talcott
Holt	O'Brien	Taylor, Mo.
Horton	O'Hara	Thone
Huber	O'Neill	Tiernan
Hungate	Parris	Treen
Hunt	Passman	Vander Jagt
Hutchinson	Patten	Vanik
Johnson, Calif.	Pettis	Veysey
Karth	Peyser	Vigorito
Kemp	Pike	Waggonner
King	Powell, Ohio	Walsh
Kluczynski	Price, Ill.	Whalen
Kuykendall	Quie	White
Kyros	Railsback	Widnall
Lagomarsino	Randall	Wilson, Bob
Landgrebe	Rarick	Winn
Landrum	Regula	Wydler
Latta	Rhodes	Wyman
Lent	Riegle	Yatron
Litton	Rinaldo	Young, Fla.
Long, La.	Robinson, Va.	Young, Ill.
Long, Md.	Rodino	Young, S.C.
Lott	Roe	Zablocki
Luken	Roncallo, N.Y.	Zion
McCloskey	Rostenkowski	Zwach

ANSWERED "PRESENT"—2

Edwards, Calif. Evins, Tenn.

NOT VOTING—77

Alexander	Gettys	Rooney, Pa.
Andrews, N.C.	Gray	Rose
Ashbrook	Haley	Rosenthal
Biaggi	Hanna	Roy
Blackburn	Hawkins	Runnels
Blatnik	Hays	Ruppe
Bowen	Hudnut	Schroeder
Bray	Johnson, Colo.	Shipley
Brotzman	Johnson, Pa.	Shoup
Brown, Mich.	Jones, N.C.	Slack
Brown, Ohio	Jones, Tenn.	Stokes
Buchanan	Kazen	Stubblefield
Carey, N.Y.	Ketchum	Sullivan
Casey, Tex.	Leggett	Towell, Nev.
Chappell	Lujan	Ullman
Clancy	McSpadden	Waldie
Cochran	Milford	Wampler
Collins, Tex.	Mills	Whitehurst
Davis, S.C.	Montgomery	Whitten
Dellenback	Myers	Williams
Devine	Nix	Wyatt
Dorn	Patman	Wylie
Flynt	Pickle	Young, Alaska
Forsythe	Quillen	Young, Ga.
Frenzel	Reid	Young, Tex.
Fulton	Rooney, N.Y.	

So the amendment offered as a substitute for the amendment was rejected.

The result of the vote was announced as above recorded.

The CHAIRMAN. The question is on the amendment offered by the gentleman from New York (Mr. RONCALLO).

The question was taken; and the Chairman announced that the ayes appeared to have it.

RECORDED VOTE

Mr. MOSS. Mr. Chairman, I demand a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 281, noes 58, answered "present" 1, not voting 93, as follows:

[Roll No. 186]

AYES—281

Abdnor	Gross	Pepper
Addabbo	Grover	Perkins
Andrews,	Gubser	Pettis
N. Dak.	Gude	Peyser
Annunzio	Gunter	Pike
Archer	Guyer	Poage
Arends	Hamilton	Powell, Ohio
Armstrong	Hammer-	Preyer
Aspin	schmidt	Price, Ill.
Bafalis	Hanley	Price, Tex.
Baker	Hanrahan	Quie
Barrett	Hansen, Idaho	Railsback
Bauman	Harsha	Randall
Beard	Hastings	Rarick
Bennett	Hébert	Regula
Bergland	Hechler, W. Va.	Rhodes
Bevill	Heckler, Mass.	Riegle
Biester	Heinz	Roberts
Boggs	Helstoski	Robinson, Va.
Boland	Henderson	Robison, N.Y.
Brademas	Hillis	Rodino
Brasco	Hinshaw	Roe
Breaux	Hogan	Rogers
Breckinridge	Holt	Roncalio, Wyo.
Brinkley	Horton	Roncallo, N.Y.
Brooks	Howard	Rostenkowski
Broomfield	Huber	Roush
Broyhill, N.C.	Hungate	Rousselot
Broyhill, Va.	Hunt	Ruth
Burgener	Hutchinson	St Germain
Burke, Fla.	Ichord	Sandman
Burke, Mass.	Jarman	Sarasin
Burleson, Tex.	Johnson, Calif.	Sarbanes
Burlison, Mo.	Jordan	Satterfield
Butler	Karth	Scherle
Byron	Kemp	Schneebeli
Camp	King	Sebelius
Carter	Kluczynski	Shriver
Cederberg	Kuykendall	Shuster
Chamberlain	Lagomarsino	Sikes
Clark	Landgrebe	Sisk
Clausen,	Landrum	Skubitz
Don H.	Latta	Smith, Iowa
Clawson, Del	Lent	Smith, N.Y.
Cleveland	Litton	Snyder
Cohen	Long, La.	Spence
Collier	Long, Md.	Staggers
Collins, Ill.	Lott	Stanton,
Conable	Luken	J. William
Conlan	McClory	Stanton,
Conte	McCloskey	James V.
Cotter	McCollister	Steed
Coughlin	McDade	Steele
Crane	McEwen	Steiger, Ariz.
Cronin	McFall	Steiger, Wis.
Daniel, Dan	McKinney	Stephens
Daniel, Robert	Macdonald	Stratton
W., Jr.	Madden	Stuckey
Daniels,	Mahon	Studds
Dominick V.	Mallary	Symms
Danielson	Mann	Talcott
Davis, Ga.	Maraziti	Taylor, Mo.
Davis, Wis.	Martin, Nebr.	Taylor, N.C.
de la Garza	Martin, N.C.	Thompson, N.J.
Delaney	Mathias, Calif.	Thomson, Wis.
Denholm	Mathis, Ga.	Thone
Dent	Matsunaga	Tiernan
Derwinski	Mayne	Traxler
Dickinson	Mazzoli	Treen
Dingell	Melcher	Udall
Donohue	Mezvinsky	Vander Jagt
Downing	Miller	Vanik
Dulski	Minish	Veysey
Duncan	Mink	Vigorito
du Pont	Minshall, Ohio	Waggonner
Edwards, Ala.	Mitchell, N.Y.	Walsh
Eilberg	Mizell	Ware
Erlenborn	Moakley	Whalen
Esch	Mollohan	White
Eshleman	Moorhead,	Whitten
Evins, Tenn.	Calif.	Widnall
Fish	Moorhead, Pa.	Wilson, Bob
Fisher	Morgan	Wilson,
Flood	Murphy, Ill.	Charles, Tex.
Flowers	Murphy, N.Y.	Winn
Fountain	Murtha	Wolff
Frey	Natcher	Wright
Gaydos	Nedzi	Wydler
Giaimo	Nelsen	Wyman
Gilman	Nichols	Yatron
Ginn	Obey	Young, Fla.
Goldwater	O'Brien	Young, Ill.
Gonzalez	O'Hara	Young, S.C.
Goodling	O'Neill	Zablocki
Grasso	Parris	Zion
Green, Oreg.	Passman	Zwach
Green, Pa.	Patten	

NOES—58

Abzug	Findley	Moss
Adams	Foley	Owens
Anderson,	Ford	Podell
Calif.	Fraser	Pritchard
Ashley	Frelinghuysen	Rangel
Badillo	Fuqua	Rees
Bingham	Harrington	Reuss
Bolling	Hicks	Roybal
Brown, Calif.	Holifield	Seiberling
Burton	Holtzman	Stark
Chisholm	Hosmer	Symington
Clay	Jones, Okla.	Teague
Conyers	Kastenmeier	Thornton
Corman	Koch	Van Deerlin
Culver	Lehman	Vander Veen
Dellums	McCormack	Wilson,
Dennis	McKay	Charles H.,
Diggs	Meeds	Calif.
Drinan	Metcalfe	Yates
Evans, Colo.	Mitchell, Md.	
Fascell	Mosher	

ANSWERED "PRESENT"—1

Edwards, Calif.

NOT VOTING—93

Alexander	Fulton	Quillen
Anderson, Ill.	Gettys	Reid
Andrews, N.C.	Gibbons	Rinaldo
Ashbrook	Gray	Rooney, N.Y.
Bell	Griffiths	Rooney, Pa.
Biaggi	Haley	Rose
Blackburn	Hanna	Rosenthal
Blatnik	Hansen, Wash.	Roy
Bowen	Hawkins	Runnels
Bray	Hays	Ruppe
Brotzman	Hudnut	Ryan
Brown, Mich.	Johnson, Colo.	Schroeder
Brown, Ohio	Johnson, Pa.	Shipley
Buchanan	Jones, Ala.	Shoup
Burke, Calif.	Jones, N.C.	Slack
Carey, N.Y.	Jones, Tenn.	Steelman
Carney, Ohio	Kazen	Stokes
Casey, Tex.	Ketchum	Stubblefield
Chappell	Kyros	Sullivan
Clancy	Leggett	Towell, Nev.
Cochran	Lujan	Ullman
Collins, Tex.	McSpadden	Waldie
Davis, S.C.	Madigan	Wampler
Dellenback	Michel	Whitehurst
Devine	Milford	Wiggins
Dorn	Mills	Williams
Eckhardt	Montgomery	Wyatt
Flynt	Myers	Wylie
Forsythe	Nix	Young, Alaska
Frenzel	Patman	Young, Ga.
Froehlich	Pickle	Young, Tex.

So the amendment was agreed to.

The result of the vote was announced as above recorded.

The CHAIRMAN. If there are no further amendments, under the rule, the Committee rises.

Accordingly the Committee rose; and the Speaker having resumed the chair, Mr. HANLEY, 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. 13999) to authorize appropriations for activities of the National Science Foundation, and for other purposes pursuant to House Resolution 1058, he reported the bill back to the House with an amendment adopted by the Committee of the Whole.

The SPEAKER. Under the rule, the previous question is ordered.

The question is on the amendment.

The amendment was 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 TO RECOMMIT OFFERED BY MR. GROSS

Mr. GROSS. Mr. Speaker, I offer a motion to recommit.

The SPEAKER. Is the gentleman opposed to the bill?

Mr. GROSS. I am, Mr. Speaker.

The SPEAKER. The Clerk will report the motion to recommit.

The Clerk read as follows:

Mr. GROSS moves to recommit the bill, H.R. 13999 to the Committee on Science and Astronautics.

The SPEAKER. Without objection, the previous question was ordered on the motion to recommit.

There was no objection.

The SPEAKER. The question is on the motion to recommit.

The motion to recommit was rejected.

The SPEAKER. The question is on the passage of the bill.

Mr. SCHERLE. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The vote was taken by electronic device; and there were—yeas 330, nays 8, not voting 95, as follows:

[Roll No. 187]

YEAS—330

Abdnor	Daniels, Dominick V.	Hillis
Abzug	Danielson	Hogan
Adams	Davis, Ga.	Holifield
Addabbo	Davis, Wis.	Holt
Anderson, Calif.	de la Garza	Holtzman
Andrews, N. Dak.	Delaney	Horton
Annunzio	Denholm	Hosmer
Archer	Dennis	Howard
Arends	Dent	Huber
Armstrong	Derwinski	Hungate
Ashley	Dickinson	Hunt
Aspin	Diggs	Hutchinson
Badillo	Dingell	Ichord
Bafalis	Donohue	Jarman
Baker	Downing	Johnson, Calif.
Barrett	Drinan	Johnson, Colo.
Bauman	Dulski	Jones, Ala.
Beard	Duncan	Jones, Okla.
Bennett	du Pont	Jordan
Bergland	Edwards, Ala.	Karth
Bevill	Edwards, Calif.	Kastenmeier
Biester	Eilberg	Kemp
Bingham	Erlenborn	King
Boggs	Esch	Koch
Boland	Eshleman	Kuykendall
Bolling	Evans, Colo.	Lagomarsino
Bowen	Evins, Tenn.	Landrum
Brademas	Fascell	Latta
Brasco	Findley	Lehman
Breaux	Fish	Lent
Breckinridge	Fisher	Litton
Brinkley	Flood	Long, La.
Brooks	Flowers	Long, Md.
Broomfield	Foley	Lott
Brown, Calif.	Ford	Luken
Broyhill, N.C.	Fountain	McClory
Broyhill, Va.	Fraser	McCloskey
Burgener	Frelinghuysen	McDade
Burke, Fla.	Frey	McEwen
Burke, Mass.	Froehlich	McFall
Burleson, Tex.	Gaydos	McKay
Burlison, Mo.	Giaimo	McKinney
Burton	Gibbons	Macdonald
Butler	Gilman	Madden
Byron	Ginn	Madigan
Camp	Goldwater	Mahon
Carter	Gonzalez	Mallary
Cederberg	Goodling	Mann
Chamberlain	Grasso	Maraziti
Chisholm	Green, Oreg.	Martin, Nebr.
Clark	Green, Pa.	Martin, N.C.
Clausen, Don H.	Grover	Mathias, Calif.
Clawson, Del	Gubser	Mathis, Ga.
Clay	Gude	Matsunaga
Cleveland	Gunter	Mayne
Cohen	Guyer	Mazzoli
Collier	Hamilton	Meeds
Collins, Ill.	Hammer-schmidt	Melcher
Conable	Hanley	Metcalfe
Conlan	Hanrahan	Mezvinsky
Conte	Hansen, Idaho	Miller
Conyers	Hansen, Wash.	Minish
Corman	Harrington	Mink
Cotter	Harsha	Minshall, Ohio
Coughlin	Hastings	Mitchell, N.Y.
Cronin	Hechler, W. Va.	Moakley
Culver	Heckler, Mass.	Mollohan
Daniel, Dan	Heinz	Montgomery
Daniel, Robert W., Jr.	Helstoski	Moorhead, Calif.
	Henderson	Moorhead, Pa.
	Hicks	Morgan
Mosher	Rodino	Taylor, Mo.
Moss	Roe	Taylor, N.C.
Murphy, Ill.	Rogers	Teague
Murphy, N.Y.	Roncalio, Wyo.	Thompson, N.J.
Murtha	Roncalio, N.Y.	Thomson, Wis.
Natcher	Rostenkowski	Thone
Nedzi	Roush	Thornton
Nelsen	Roybal	Tiernan
Nichols	Ruth	Traxler
Obey	St Germain	Treen
O'Brien	Sandman	Udall
O'Hara	Sarasin	Van Deerlin
O'Neill	Sarbanes	Vander Jagt
Owens	Satterfield	Vander Veen
Parris	Scherle	Vanik
Passman	Schneebeli	Vigorito
Patten	Sebelius	Waggonner
Pepper	Seiberling	Walsh
Perkins	Shriver	Ware
Pettis	Sikes	Whalen
Peyser	Skubitz	Whitten
Pike	Smith, Iowa	Widnall
Poage	Smith, N.Y.	Wilson, Bob
Podell	Snyder	Wilson, Charles H., Calif.
Powell, Ohio	Spence	
Preyer	Staggers	Wilson, Charles, Tex.
Price, Ill.	Stanton, J. William	Winn
Price, Tex.	Stanton, James V.	Wolff
Pritchard	Steed	Wright
Quie	Steele	Wydler
Railsback	Steelman	Wyman
Randall	Steiger, Ariz.	Yates
Rangel	Steiger, Wis.	Yatron
Rees	Stephens	Young, Fla.
Regula	Stratton	Young, Ill.
Reuss	Stuckey	Young, S.C.
Rhodes	Studds	Zablocki
Riegle	Symington	Zion
Roberts	Talcott	Zwach
Robinson, Va.		
Robison, N.Y.		

NAYS—8

Crane	McCollister	Shuster
Gross	Mitchell, Md.	Symms
Landgrebe	Rarick	

NOT VOTING—95

Alexander	Gettys	Rooney, Pa.
Anderson, Ill.	Gray	Rose
Andrews, N.C.	Griffiths	Rosenthal
Ashbrook	Haley	Rousselot
Bell	Hanna	Roy
Biaggi	Hawkins	Runnels
Blackburn	Hays	Ruppe
Blatnik	Hébert	Ryan
Bray	Hinshaw	Schroeder
Brotzman	Hudnut	Shipley
Brown, Mich.	Johnson, Pa.	Shoup
Brown, Ohio	Jones, N.C.	Sisk
Buchanan	Jones, Tenn.	Slack
Burke, Calif.	Kazen	Stark
Carey, N.Y.	Ketchum	Stokes
Carney, Ohio	Kluczynski	Stubblefield
Casey, Tex.	Kyros	Sullivan
Chappell	Leggett	Towell, Nev.
Clancy	Lujan	Ullman
Cochran	McCormack	Veysey
Collins, Tex.	McSpadden	Waldie
Davis, S.C.	Michel	Wampler
Dellenback	Milford	White
Dellums	Mills	Whitehurst
Devine	Myers	Wiggins
Dorn	Nix	Williams
Eckhardt	Patman	Wyatt
Flynt	Pickle	Wylie
Forsythe	Quillen	Young, Alaska
Frenzel	Reid	Young, Ga.
Fulton	Rinaldo	Young, Tex.
Fuqua	Rooney, N.Y.	

So the bill was passed.

The Clerk announced the following pairs:

Mr. Rooney of Pennsylvania with Mr. Runnels.
Mr. Hébert with Mr. Eckhardt.
Mr. Rooney of New York with Mr. Flynt.
Mr. Carey of New York with Mr. Mills.
Mr. Pickle with Mr. Slack.
Mr. Kazen with Mr. Rousselot.
Mr. Rose with Mr. Forsythe.
Mr. Stark with Mr. Rinaldo.
Mr. Reid with Mr. Anderson of Illinois.
Mr. Haley with Mr. Michel.
Mr. Hanna with Mr. Devine.
Mr. Patman with Mr. Myers.
Mr. Fulton with Mr. Ashbrook.
Mr. Milford with Mr. Quillen.
Mr. Gray with Mr. Collins of Texas.
Mr. McSpadden with Mr. Bell.
Mr. Blatnik with Mr. Brown of Ohio.
Mr. Stokes with Mrs. Schroeder.
Mr. Dellums with Mr. Carney of Ohio.
Mr. Alexander with Mr. Blackburn.
Mr. Biaggi with Mr. Brown of Michigan.
Mr. Hawkins with Mr. Shipley.
Mr. Hays with Mr. Frenzel.
Mr. Jones of Tennessee with Mr. Brotzman.
Mr. Kyros with Mr. Hinshaw.
Mr. Nix with Mr. Waldie.
Mr. Young of Georgia with Mr. Roy.
Mr. Sisk with Mr. Bray.
Mr. Ryan with Mr. Hudnut.
Mrs. Burke of California with Mr. Kluczynski.
Mr. Casey of Texas with Mr. Buchanan.
Mr. Chappell with Mr. Cochran.
Mr. Leggett with Mr. Dellenback.
Mr. Davis of South Carolina with Mr. Clancy.
Mr. Rosenthal with Mr. Lujan.
Mr. Dorn with Mr. Johnson of Pennsylvania.
Mr. Stubblefield with Mr. Ruppe.
Mrs. Sullivan with Mr. Wampler.
Mr. McCormack with Mr. Shoup.
Mr. Fuqua with Mr. Williams.
Mr. Jones of North Carolina with Mr. Whitehurst.
Mrs. Griffiths with Mr. Wyatt.
Mr. Gettys with Mr. Wiggins.
Mr. Ullman with Mr. Wylie.
Mr. White with Mr. Young of Alaska.
Mr. Young of Texas with Mr. Towell of Nevada.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

PERMISSION FOR COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE TO HAVE UNTIL MIDNIGHT, FRIDAY, APRIL 26, TO FILE REPORTS ON H.R. 14368 AND H.R. 13834

Mr. STAGGERS. Mr. Speaker, I ask unanimous consent that the Committee on Interstate and Foreign Commerce may have until midnight Friday, to file reports on the bills H.R. 14368 and H.R. 13834.

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

There was no objection.

LEGISLATIVE PROGRAM

(Mr. ARENDS asked and was given permission to address the House for 1 minute.)

Mr. ARENDS. Mr. Speaker, I should like to ask the majority leader if he will advise us of the program for next week.

Mr. O'NEILL. Mr. Speaker, will the gentleman yield?

Mr. ARENDS. I yield to the distinguished gentleman from Massachusetts.

Mr. O'NEILL. The program for the House of Representatives for the week of April 29, 1974, is as follows:

On Monday we will have:

House Resolution 1027, Judiciary Committee funding;

House Resolution 768, Select Committee on the House Restaurant funding;

H.R. 11793, Federal Energy Administration, conference report; and

H.R. 11989, Fire Prevention and Control Act, under an open rule, with 1 hour of debate. As the Members know, we adopted the rule on this today.

On Tuesday we will have special energy

research and development appropriations, fiscal year 1975. I understand this is the first time in history that an appropriation of this type for energy alone has been requested.

On Wednesday and the balance of the week we will have:

H.R. 14368, Energy Supply and Environmental Coordination Act, subject to a rule being granted;

H.R. 12993, broadcast license renewals, subject to a rule being granted;

H.R. 13053, national cancer amendments, subject to a rule being granted; and

H.R. 6175, Research on Aging Act, subject to a rule being granted.

Conference reports may be brought up at any time.

Any further program will be announced later.

ADJOURNMENT TO MONDAY, APRIL 29, 1974

Mr. O'NEILL. 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 Massachusetts?

There was no objection.

DISPENSING WITH CALENDAR WEDNESDAY BUSINESS ON WEDNESDAY NEXT

Mr. O'NEIL. Mr. Speaker, I ask unanimous consent that the business in order under the Calendar Wednesday rule be dispensed with on Wednesday of next week.

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

There was no objection.

TWENTY-SIX YEARS OF PROGRESS

(Mr. PODELL asked and was given permission to address the House for 1 minute, to revise and extend his remarks and include extraneous matter.)

Mr. PODELL. Mr. Speaker, on this day, Israel is celebrating her 26th anniversary as an independent nation. Most nations created in the nationalist movement following the end of World War II have long since fallen into a pattern of dictatorship—coup-dictatorship. Israel has become one of the most successful democracies anywhere.

The 26 years of Israel's existence have been stormy, torturous, filled with violence and bloodshed. The Arab States have spent more than a quarter of a century denying a fact of life: Israel exists, and Israel will continue to exist, no matter what they do. Egypt is only now coming to its senses, and repudiating a self-destructive philosophy that led to nothing but 25 years of strife and war.

In the 26 years of her existence. Israel went from a land of desert and swamp to one that is literally flowing with milk and honey, as we were told in the Old Testament. She has opened her gates wide to all who wish to come and live there. She has made room for waves of emigrants—first the scattered remnants of Hitler's death camps, then the refugees of oppression from the remaining Jewish communities in Arab States, and most recently, for the few Jews that the Soviet Government has been good enough to free. For each of these groups of people, Israel has offered the promise of a home and a future, with no need to fear, any longer, because one is a Jew.

Even though most of the last quarter century was spent in a state of either preparedness for war or actual fighting, Israel has still managed to provide for the needs of her civilian population. The cost has been unthinkably high. No nation should have to make the sacrifices and pay the costs which have been imposed on Israel simply because she wishes to exist as a free and independent state. But in spite of all this, Israel is today a thriving nation.

Yes, Israel has problems. There is urban overcrowding. There is inflation. There is unemployment. There are various discontents, the same discontents that plague any highly industrialized society. For that is what Israel is. A thoroughly modern industrialized state. And she has become so in the span of recent memory.

Some people resent the fact that Israel seems to be dependent on the United States. Would that all our allies were so dependent. I cannot conceive of the day when Israel will turn on us, as so many other recipients of our aid have done, and castigate us for being generous enough to assist her when she needed us. Israel is not merely an endless funnel into which a generous Uncle Sam pours a stream of dollars and weapons. No, Israel is a nation that has proven she can care for herself, that she will find her own way out of the problems that beset her. Israel is the example which other developing nations should follow.

The difficulties now facing Israel and her new government, under the able leadership of Prime Minister Yitzhak Rabin, are not insurmountable. They require guts and determination. They will call for the best in both Israel and America. We have long had a solid and steady relationship with Israel, backing her when no other nation would. The rest of the world's major powers voted for the creation of Israel from Palestine in 1948, including the Soviet Union. In the ensuing years, the only friend remaining to Israel is this country.

We cannot now say that we have done enough. It is incumbent upon the United States to continue working with Israel to bring a lasting peace to the Middle East, one that will insure Israel's integrity as a sovereign state.

There are so many flattering things to be said about Israel that they become merely pious platitudes. She is the last truly pioneer society in the world. She has experimented with new lifestyles in communal living and child rearing. The fruits of her farmlands are known throughout the world for their flavor. Her men are strong, her women are beautiful. She is the spiritual home of three of the world's great religions.

She is unique, she is beautiful, she is resilient, she is strong.

She is Israel, and I wish her happy 26th anniversary, and may we live to see 26 more.

A CLASSIC CASE OF DISTORTED PRIORITIES

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

Mr. BADILLO. Mr. Speaker, the enormous gulf between a pay check and a dividend check was dramatized yesterday when the Governor of New York, brought a virtual halt to all other business in order to provide $500 million emergency financial assistance to the Consolidated Edison Co. simply because the financially troubled utility failed to pay a dividend for the first time since 1885.

In the State of New York and in many other areas of the country men and women have gone without paychecks for months, and in many cases, years and very little concern has been given to their plight. However, when a large utility or other corporate enterprise faces a financial pinch, politicians and public officials stumble over themselves to bail them out. We have previously seen steps to provide aid to business giants such as Lockheed and Penn Central, now we have the case of Con Ed.

It is common knowledge that Con Edison has been mismanaged for years and that the utility is a prime example of gross inefficiencies in performance and planning. Although it is plagued by a variety of economic woes, the utility—in one of its more ill-conceived moves—persists in attempting to spend between $720 million and, possibly $1 billion on a pumped-storage generating plant at Storm King Mountain, a facility which will yield two kilowatts of electricity while requiring three kilowatts to pump water from the Hudson to a reservoir. The plain fact is that Con Edison simply does not need Storm King or a number of other planned facilities as, by establishing a comprehensive power grid in the Northeast, it could easily obtain necessary power from surrounding areas. Joined by then Representative JAMES ABOUREZK and Congressman ROBERT TIERNAN, I introduced legislation in the 92d Congress to establish such a power grid. Although haunted by the specter of blackouts and brownouts in the Northeast, no action was taken.

Beyond the technicalities, however, this whole sad tale is a classic example of how the privileged and narrow, special interests are given preferred treatment by Government and the press. Surely if such prompt action were to be taken on the pernicious unemployment crisis which has engulfed this Nation for the past several years it would be quickly resolved. However, it would appear that Governor Wilson and the leadership of the legislature are more concerned that Con Ed stockholders receive their dividend checks than that the interests of all the people are fully served. How can our

priorities be more distorted and how can such hypocrisy be defended?

CONGRESSIONAL COUNTDOWN ON CONTROLS

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

Mr. STEELMAN. Mr. Speaker, it is both instructive and wise to regard history as prologue. The earliest of peoples had their bout with wage and price controls, as have we. The experiment proved to be a failure. Yet the lesson seems to have been lost today as we approach the April 30 deadline, with a decision either to extend or not to extend the Economic Stabilization Act.

Robert L. Schuettinger, in an excellent study of the history of wage and price controls from 2800 B.C. to 1952 A.D., sets the economic scene in the ancient world for us. The following is from his account:

ANCIENT WORLD

This is a small drop in the bucket of history. The conclusion that emerges speaks rather disparagingly of wage and price controls, despite the small time period and the miniscule population of the ancient world.

From earliest times, from the first days of organized government, rulers and their officials have attempted, with varying degrees of success, to "control" their economies. The idea that there is a "just" or "fair" price for a certain good or a certain kind of labor which can and ought to be enforced by government is apparently coterminous with civilization.

For the past forty-six centuries at least, governments all over the world have periodically tried to fix wages and prices. When their efforts failed, as they usually did, governments then put the blame on the wickedness of their subjects.

The passion for economic planning as Professor John Jewkes of Oxford University has cogently pointed out, is perennial. Centralized planning regularly appears in every generation and is just as readily discarded after several years of experimentation. Grandiose plans for regulating investment, wages, prices and production are usually unveiled with great fanfare and high hopes. As reality gradually seeps in, the plans are first modified, then drastically altered and finally quietly allowed to vanish unmourned. Human nature being what it is, of course, every decade or so, the same old plans are dusted off (perhaps given a different name) and the process, like spring following winter, begins anew.

As far back as the fifth dynasty in Egypt, generally dated at about 2800 B.C., the Monarch Henku had inscribed on his tomb "I was lord and overseer of southern grain in this nome."

For centuries the Egypt government strived to maintain control of the grain crop knowing that control of the people's food would necessarily mean control of their lives. Using the pretext of preventing famine, the government gradually regulated more and more granaries. Regulation led to direction and finally to outright ownership; land became the property of the monarch and was rented from him by the agricultural class.

In Babylon, about 4,000 years ago the code of Hammurabi Code imposed a rigid system of controls over wages and prices. The entire economy of Babylon was subject to minute regulation in all its aspects. These controls blanketed Babylonian production and distribution and, in fact, smothered economic progress for centuries.

On the other side of the world, the rulers of ancient China shared the same paternalistic philosophy to be found among the Egyptians and Babylonians and later, among the Greeks and Romans.

According to the Chinese scholar, Dr. Huan-Chang Chen, the economic doctrines of Confucius taught that "there are two sets of interests, those of producers and those of consumers. But nothing more markedly affects the interests of both sides at once than prices. Therefore, price is the great problem for society as a whole. According to the Confucian theory, the government should level prices by the adjustment of demand and supply, in order to guarantee the cost of the producer and satisfy the wants of the consumer . . . *It is the task of the superior man to adjust demand and supply so as to keep prices on a level.*" (Italics mine.)

The officials of the ancient Chinese Empire attempted to do what members of their class have perennially attempted before and since, in other times and other places. They attempted to replace the natural laws of supply and demand with their own superior judgment of what the proper supply and the proper demand *ought* to be.

Dr. Chen relates that "According to the official system of Chou (about 1122 B.C.), the superintendent of grain looked around the fields and determined the amount of grain to be collected or issued, in accordance with the condition of the crop; fulfilling the deficit of their demand and adjusting their supply."

As might be expected, however, this high-minded system did not always work as perfectly as intended since even mandarins are human and thus subject to error and occasionally corruption. Dr. Chen concludes dryly that "The chief difficulty in administering (production, price and wage controls) is that it is not easy for officials to undertake commercial functions along with political duties."

During the golden age of Athens, in the time of Socrates and Plato, the bureaucrats of the Acropolis were even less successful than their Oriental counterparts in interfering with the laws of supply and demand.

As a populous city-state with a small hinterland, Athens was constantly short of grain, at least half of which had to be imported from overseas. There was, needless to say, a natural tendency for the price of grain to rise when it was in short supply and to fall when there was an abundance. An army of grain inspectors who were called Sitephylaces were appointed for the purpose of setting the price of grain at a level the Athenian government thought, in its wisdom, to be just.

The result was as might be expected. Despite the penalty of death which the harassed government did not hesitate to inflict, the laws controlling the grain trade were almost impossible to enforce. We have an "Oration" from at least one of the frustrated Athenian politicians who implored a jury to put offending merchants to death. "But it is necessary, gentlemen of the jury," he urged, "to chastise them not only for the sake of the past, but also as an example for the future; for as things now are they will hardly be endurable. And consider that in consequence of this vocation very many already have stood trial for their life; and so great are the emoluments which they derive from it that they prefer to risk their life every day rather than cease to draw from you unjust profits . . . If then you shall condemn them, you shall act justly and you will buy grain cheaper; otherwise dearer."

Lysias was not the first and he was hardly the last politician to court popularity by promising the people lower prices in times of scarcity if only they would hang a few merchants. The Athenian government, in fact, went so far as to execute their own inspectors who did not enforce the price ceilings with sufficient zeal. Despite the high death rates for merchants and bureaucrats alike, the price of grain still rose when demand exceeded supply and ultimately the system collapsed.

The most famous and the most extensive attempt to control prices and wages occurred in the reign of the Emperor Diocletian who obviously was a poor student of Greek economic history. The year AD 301 saw a sharp rise in prices throughout the empire; in response Diocletian issued his far-ranging Edict which was full of such familiar words and phrases as "avarice," "lust of plunder," and "extortion", denouncing merchants of "immense fortunes" who were motivated by "private gain" rather than a patriotic desire to "keep profits within bounds."

BARRIER FREE ENVIRONMENTS ACT OF 1974

The SPEAKER pro tempore (Mr. MAZZOLI). Under a previous order of the House, the gentleman from New Jersey (Mr. WIDNALL) is recognized for 5 minutes.

Mr. WIDNALL. Mr. Speaker, today I have introduced H.R. 14387, the Barrier Free Environments Act of 1974—an act to encourage through tax incentives the removal of architectural barriers to the elderly and the handicapped.

Stated in simple terms, I am proposing that a tax deduction be granted to those in private enterprise to the extent of expense they are willing to accept in removing man-made barriers which interfere with the freedom of movement and safety of our handicapped people. It will not amount to an objectionable loss of tax revenues that some might first suspect and it is not a creation of a loophole that offers to shift unfair burdens to the salaried taxpayer. The removal of physical barriers are one-time expenses, which offer advantages to all people.

The benefits to the businessman are obvious in the form of the proposed tax deduction and in a potential increase in trade from handicapped people. But there are other advantages recently pointed out by one of our leading insurance companies. The removal of physical barriers and acceptance of barrier free design specifications offer;

Fewer accidents, reduced losses, and lower health and accident insurance rates;

Standards for the handicapped meet the highest fire prevention standards, and thereby offer additional savings; and

Removal of hazards reduces liability claims, enhances on-the-job safety, reduces employee time loss due to accidents and reduces cost of liability insurance and workmen's compensation.

I am for all of these things but most of all, I am for positive actions that will free the handicapped individual and give him reasonable and fair opportunity to enjoy life in society as others do—that is, to the limit of his given capacity. I fear that unless we provide incentives to remove existing barriers—and in so doing strive to awaken society to the man-made restrictions we are imposing upon our less fortunate Americans—we will accomplish very little over an endless period of time.

This is not intended to suggest that nothing is being done to remove these

barriers. On the contrary, a great number of efforts are underway in both the public and private sectors. We in the Congress have taken actions to require barrier free standards in federally supported construction programs, transportation programs and in a variety of demonstration and development projects. The Vocational Rehabilitation Act of 1973, established an Architectural and Transportation Compliance Board which is to look after and emphasize these national efforts. The Highway Act of 1973 gave specific assistance for special needs of the elderly and the handicapped. The Department of Housing and Urban Development has initiated programs which will develop standards for barrier free landscape, design of living units for the handicapped and a new standard for public buildings. The Veterans' Administration has only recently published new standards to be applied in VA hospitals and other VA facilities.

Also, I have real hope that we will see an omnibus housing bill enacted this summer. I am particularly hopeful that it will contain—for the first time ever, to my knowledge—a program which will specifically authorize the expenditure of Federal community development funds for the purpose of removing architectural barriers. We have tried to guard against the imposition of barriers in new public buildings, but we have not—up to this time—set out to remove those already in existence in the public domain. On the State level, all but a few States have taken actions to either encourage the removal or insure the avoidance of barriers. Few of those go beyond the public expenditures, but at least one State has extended the same tax incentives that I have proposed in this act.

The real accomplishments of course are those actions which take place at the local point of need. A number of good things are being done. The President's Committee on Employment of the Handicapped had long maintained a Committee on Barrier Free Design which has achieved innumerable gains. The American Institute of Architects has been at the fore of a very positive and aggressive effort to educate its membership and others in the professional aspects of barrier free design. The Easter Seal Society through both its national and State chapters has been a pioneer in these matters. They have been particularly effective in the State of New Jersey. And now, these three organizations, joined by the Paralyzed Veterans of America, are developing a major national effort—A National Coalition for a Barrier-Free Environment. This most commendable effort promises to join all those groups interested in assisting in a national undertaking and thus to facilitate the marshaling of resources and the organization of multigroup efforts at the State and local levels.

I regret that I cannot do justice here in recognizing many others that have been and remain active in this area of great need. I am certain that the list would be long and impressive. I am equally certain, however, that all of those involved would agree with me that today we are only a little way down a long, long road of need.

How do you answer a young capable person unable to pursue his potential in life because school facilities are designed beyond his physical reach; job opportunities are beyond accessible transportation limits; or transportation facilities will not accommodate his limited capacity; or, perhaps as his need is only a dwelling unit that will admit a wheelchair. The world becomes smaller as we continue the list of little things that influence the life of a handicapped person.

One of the most impressive and heartwarming efforts that I am aware of is one that will be initiated next Saturday, April 27, 1974, in Ridgewood, N.J. Under the title of Awareness Day, this community will turn heart and muscle to the task of making downtown Ridgewood "barrier free," so that handicapped people may have full and free movement in that area. It is a difficult and huge undertaking, but already the event has served to alert others to the problem and to draw spontaneous support from many organizations in the general vicinity.

One of the more gratifying aspects of Awareness Day, is the accompanying opening day ceremonies of the Little League baseball season. There is something very refreshing and symbolic in the fact that Ridgewood will be inviting its handicapped people to come out from behind barriers and join the world in enjoyment of youth sports. I believe the following editorial from the April 21, 1974, issue of the Ridgewood, N.J., Sunday News, will be of interest to many others:

AWARENESS DAY

Saturday has been designated Awareness Day in Ridgewood, a day when numerous civic-minded citizens in fields of sports, politics, municipal government and commerce have generously volunteered their time to help advance the concept of making downtown Ridgewood barrier free—thus enabling the handicapped to traverse the downtown area under their own power. The event coincides with the annual Ridgewood Baseball Assn. parade and a representative group of handicapped and nonhandicapped in wheelchairs will bring up the tail end of the march to demonstrate their willingness and ability to join the mainstream once physical barriers have been removed. The time to view the plight of the handicapped as a delicate, squeamish matter is long past. The men and women, veterans and students, children and grandparents confined for various reasons and for varied time periods to wheelchairs and crutches are members of our families—neighbors, friends. We owe it to the handicapped and to our communities to help end the thoughtless discrimination that has precluded them from normal commerce in all our downtown areas and mandated so many public buildings off-limited due to existing architectural barriers. Be aware of what is happening Awareness Day and be alert to the small modifications such as curb cuts, drinking fountains, telephones and toilet facilities that would make Ridgewood accessible to all of northwest Bergen's residents—not just to the privileged few blessed with the fragile gift of full bodily usage.

I have given you the description of the problem we face, may I now tell you something about its size?

It is noteworthy to observe the numbers of people involved in handicapping conditions. In order that we might gain a better appreciation of that segment, I am attaching copies of two tables recently developed in the course of a Department of Transportation study conducted on "The Handicapped and Elderly Market for Urban Mass Transit." Let me mention a few figures of importance which do not stand out in these tables.

First, over 13 million Americans suffer transportation dysfunctions.

Second, one-third of the elderly are handicapped. One-half of the handicapped are not elderly.

Third, only 47.8 percent of the handicapped, aged 16 to 64 are in the labor force, which compares to 65 percent for the general population.

Finally, 13 percent of the working age chronically handicapped would return to work if transportation were no longer a problem.

I believe these facts give ample evidence of the needs, and I urge favorable and prompt attention to the proposal I am introducing today. It offers another means for positive action in providing a new world of opportunity for our handicapped people. I am confident my colleagues will join me in support of this effort.

In closing, I want to declare my support for yet another effort being proposed in the interest of the handicapped by my colleague from Michigan (Mr. ESCH). I enthusiastically join Mr. ESCH in support of House Joint Resolution 844, a sense of Congress resolution that a White House Conference on the Handicapped be called by the President of the United States. I believe the potential accomplishments of such an undertaking will support passage of the resolution and I will at the proper time move to insure that the conference be organized and conducted by those persons it seeks to help—the handicapped people of the Nation. I include the following:

STATUS OF THE HANDICAPPED AND ELDERLY

The Handicapped. Determining the exact number of people with transportation dysfunctions is at this time impossible, because no comprehensive surveys oriented specifically to transportation handicaps have been undertaken. Reliable estimates can be made, however, by projecting on the national population incidence rates (determined by the National Health Survey). These projections yield the 1970 estimates for each handicap class. It was found that a total estimate of 13,370,000 handicapped Americans would experience difficulties in utilizing mass transit systems.

THE NATIONAL NUMBERS OF HANDICAPPED WITH TRANSPORTATION DYSFUNCTIONS[1]

Handicap class	Elderly handicapped	Nonelderly handicapped	Total handicapped
Noninstitutional: Chronic conditions:			
Visually impaired	1,460,000	510,000	1,970,000
Deaf	140,000	190,000	330,000
Uses wheelchair	230,000	200,000	430,000
Uses walker	350,000	60,000	410,000
Uses other special aids	2,290,000	3,180,000	5,470,000
Other mobility limitations	1,540,000	1,770,000	3,310,000
Acute conditions	90,000	400,000	490,000
Institutionalized	930,000	30,000	960,000
Total	7,030,000	6,340,000	13,370,000

[1] 1970 estimate, who can't use transit or who use transit with difficulty.

Sources: HEW National Center for Health Statistics, 1960 and 1970 census of population.

HANDICAPPED WHO ARE UNABLE TO USE TRANSIT

	Under 65	65 and over	Total
A. Can go out, but can't use transit	1,153,000	1,153,000	2,306,000
B. Can't leave home	878,000	878,000	1,756,000
C. Institutional	30,000	930,000	960,000
D. Acute conditions (temporary)	185,000	50,000	235,000
Total	2,246,000	3,011,000	5,257,000

A *minimum* of 5.3 million of the Nation's 13.4 million transit disadvantaged are probably unable to use transit.

The labor force statistics cited above imply additionally that a subgroup of our population which tends to be disadvantaged in employment also tends to be forced to use its limited resources for more expensive means of transportation. The handicapped, for example, take 14% of their trips by taxi compared with 2% of the non-handicapped. Clearly, an improvement in transit accessibility for the handicapped would not only increase their employment opportunities, but would also enhance every other aspect of life in which mobility is a factor.

OVERVIEW OF TARGET GROUP STATISTICS

Total elderly, 20,066,000.

Total handicapped, 13,370,000.

But there are significant overlaps: elderly and handicapped total (with no double counting), 26,406,000.

This breaks down to three relevant mutually exclusive classes:

Handicapped: Elderly, 7,030,000; non-elderly, 6,340,000.

Elderly who are not handicapped, 13,036,000.

Grand total, 26,406,000.

STATE WITHHOLDING FOR HILL EMPLOYEES

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Maryland (Mr. HOGAN) is recognized for 10 minutes.

Mr. HOGAN. Mr. Speaker, I am today reintroducing legislation which is clear in its intent and would be relatively simple to implement. The legislation would authorize the voluntary withholding of Maryland, Virginia, and District of Columbia income taxes in the case of Members of Congress and employees of the legislative branch.

For those employees who work on Capitol Hill and reside in one of the three mentioned jurisdictions, there is an unnecessary hardship each year when they are confronted with a yearly or quarterly tax income tax assessment by the jurisdiction in which they reside. There is no reason why their State income tax cannot be deducted from their paycheck if they so desire. I am told that the facilities are available to implement this procedure, the only additional expense would be administrative in nature.

With our escalating cost of living, this would assist those affected to plan their expenses in a more orderly manner.

In reintroducing this bill, I have received the cosponsorship of 32 Members of the House from both sides of the aisle.

The list of cosponsors follows:

LIST OF COSPONSORS

Mr. Anderson of Illinois.
Mr. Ashley of Ohio.
Mr. Bauman of Maryland.
Mr. Byron of Maryland.
Ms. Chisholm of New York.
Mr. Collier of Illinois.
Mr. Conyers of Michigan.
Mr. Daniels of New Jersey.
Mr. Davis of South Carolina.
Mr. Dellums of California.
Mr. Evans of Colorado.
Mr. Fauntroy of the District of Columbia.
Mr. Goldwater of California.
Mr. Hamilton of Indiana.
Mr. Hansen of Idaho.
Mrs. Holt of Maryland.
Mr. Howard of New Jersey.
Mr. Hungate of Missouri.
Mr. Mathis of Georgia.
Mr. Mitchell of Maryland.
Mr. Pettis of California.
Mr. Powell of Ohio.
Mr. Robison of New York.
Mr. Schneebeli of Pennsylvania.
Mr. Selberling of Ohio.
Mr. Stark of California.
Mr. Stubblefield of Kentucky.
Mr. Thompson of New Jersey.
Mr. Whitehurst of Virginia.
Mr. Wright of Texas.
Mr. Wyman of New Hampshire.
Mr. Yatron of Illinois.

Mr. Speaker, all that needs to be done now is for Congress to take the time to consider this proposal.

I wish to insert the text of the bill at this point:

H.R. —

A bill to authorize voluntary withholding of Maryland, Virginia, and District of Columbia income taxes in the case of Members of Congress and Congressional employees

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) subchapter II of chapter 55 of title 5 of the United States Code is amended by inserting after section 5517 the following new section:

"§ 5517A. Voluntary withholding of Maryland, Virginia, and District of Columbia income taxes; Members of Congress and Congressional employees.

"The Speaker of the House of Representatives shall enter into an agreement with the State of Maryland, an agreement with the State of Virginia, and an agreement with the Commissioner of the District of Columbia at the request for any such agreement from the proper State official, or such Commissioner in the case of the District of Columbia. Any such agreement shall provide that in the case of any Member of Congress or any Congressional employee who is subject to Virginia, Maryland, or the District of Columbia income tax and who voluntarily agrees to the withholding from his pay with respect to such tax, the appropriate disbursing officer shall comply with the State withholding statute, or in the case of the District of Columbia, subchapter II of chapter 15 of title 47, District of Columbia Code."

(b) The table of sections for such subchapter is amended by inserting at the end thereof the following:

"5517A. Voluntary withholding of Maryland, Virginia, and District of Columbia income taxes; Members of Congress and Congressional employees."

HEARING ON SOARING FOOD COSTS

The SPEAKER pro tempore. Under a previous order of the House, the gentlewoman from Massachusetts (Mrs. HECKLER), is recognized for 30 minutes.

Mrs. HECKLER of Massachusetts. Mr. Speaker, as I informed my colleagues on April 24, I recently conducted a day-long public hearing on soaring food costs and their effects on the lives of the people of the 10th Congressional District of Massachusetts.

Today I would like to continue to submit to the RECORD three additional testimonies concerning the impact of the food price crisis on individuals and institutions which were presented at the food hearing held in Natick on April 18.

I am certain that my colleagues in the House will find these statements valuable as sources of not only statistical data but as personal accounts of the seriousness of the inflation problem pointing out the need for remedial action on the part of Congress:

STATEMENT OF ALBERT LEES

My name is Albert Lees and I am owner operator of a medium size independent supermarket located in Westport, Mass.

I wish to thank you for this opportunity to express my opinion of the food prices and the forces affecting them today.

First of all I would like to say I resent very much the implication of excessive retail meat profits that has been voiced in recent weeks by Secretary of Agriculture Butz. My feelings are based on the fact that last fall when wholesale prices were rising at an unprecedented rate that at retail, I either held the line or only raised prices slightly in comparison to my costs even to the extent of taking losses in our meat departments. It has only been lately with lower wholesale prices that I have finally got my meat department operating at a profit again. Incidentally I would like to interject at this point that we are now beginning to see higher wholesale prices this week and it looks as though the bottom has been reached and I would assume a firming up of prices is at hand.

Now as to food prices as an overall picture and my opinion as to what we can expect to see in the future. Without a doubt price wise the picture can only be called gloomy with no end in sight. No matter how many government regulations are proposed or enacted nothing can change the law of pure supply and demand in the long run. The simple fact is that world wide demand at an all time high and rising as the developing nations have more and more economic muscle in the market place. This is evidenced most recently by the skyrocketing price of sugar that all of a sudden became an international commodity and affected our domestic supplies price wise dramatically. As more and more nations can compete with us internationally, prices have got to rise and we will have no direct control over the situation.

Probably the next largest single item affecting food prices is that of weather on our domestic crops and we are again this year seeing spring floods and tornadoes in some parts of the country. This again can only lead to shorter supplies and therefore higher prices.

Another factor I would like to point out also, and even though I agree completely with the national program food stamps have had a tremendous overall affect on food prices. They have allowed more people to eat more and better food than ever before and therefore the competition for available supplies is much greater than ever, it is just not possible for the Federal Government to pump 5 Billion dollars a year directly into one retail area of our economy without it having an impact on the segment of industry. However I repeat I do not say the program is bad I just say we have to recognize the facts for what they are doing to prices and live with them.

Now as for the effect all this has had on my business I will try to give you some background. I know that over the period of the past few years I have tried to make my business as efficient as possible and I have

also absorbed as many price increases as I could but now being faced with higher labor costs, higher taxes, higher interest rates, and just higher operating expenses in general I no longer have any choice but to pass along each and every price increase to the consumer. As an aside to show you what I am faced with my February electric bill was $714.00 and my March bill jumped to $1142.00 for the same usage so with no pun intended there just isn't any Fat left in food prices at retail level.

I honestly wish I could give you some pat answers for the solutions to these problems but I do feel that now that price controls are all off we will soon see a return to a more normal situation in respect to food. Short range I see more higher prices but people being what they are I think Farmers will smell a buck and soon be producing food at a stabilizing of prices. Then hopefully with an expanding economy, food should again become a good buy in relationship to the monies being brought home. I know it doesn't help the housewife when she sees her grocery total in the supermarket but the fact remains that we are still the best fed nation in the world and spend less of our disposable income on food now than we did 20 years ago. Also as an industry the retail food business with a net profit of ½ of 1% which is only 25c on a $50.00 grocery order is at the bottom rung of the profit ladder in the United States at this time.

Again I thank you and if there are any questions you would like to ask I will do my best to answer them within the scope of my ability.

STATEMENT BY MARY V. KENNEDY, R.D., DIRECTOR OF DIETETICS, NEWTON-WELLESLEY HOSPITAL

Thank you, Congresswoman Heckler, for inviting me to speak at this hearing. It is enlightening to realize a member of the United States Congress is concerned about the cost of food and the effects this cost has on institutions—schools and the public in general.

As director of nutrition services at the Newton-Wellesley Hospital, the ever increasing food prices has become alarming to me. As you know the function of the nutrition services within a hospital complex is to work in conjunction with the medical staff to insure proper nutrition for the patient—whether it be during his stay in the hospital or as an outpatient.

The procurement of food is based on 3 factors: "Quality," "availability," and "price." To maintain a set standard of quality it has become necessary to pay the high market price now being asked.

At this point in time—availability is now a controlling factor on the other two—most suppliers when presenting prices for yearly contracts have indicated their supply as limited, very limited, or none and then as time went on—cancellation of the contracts because of the unavailability of the product.

As you know good nutrition is based on foods that supply protein, fats, CHO, vitamins and minerals, namely, meats, fish, poultry, dairy products, fruits, and vegetables and bread items.

In January of 1973 our percentages of food expenditures for meat was 46%—In January of 1974 it was 54%—an increase of 8%. 36% of the food dollar in January 1973 was for poultry—in 1974 is was 64%—an increase of 28%.

Eggs, milk, butter, and cheese increased from 16–20%. Eggs rose from 55¢ dozen to 85¢ dozen wholesale. Milk went from 27¢ quart in February 1973 to 31¢ quart in February 1974. In one month our entire dairy category rose $1,260.00 from December of 1973 to January, 1974.

Bread and bread products increased 10% over January of 1973. Canned goods and staples, which include fruits, fruit juices, canned vegetables, cereals, and the like increased 8% over January of 1973. Would you believe that applesauce had an 81.3% change since February of 1973; pineapple products had a 34% change; tomatoes a 22% change.

Every month we receive notices regarding increased prices on contract food items, never a decrease. Daily it has become a game of Chinese checkers to obtain quality food at reasonable prices, only to be stumped by the lack of availability on the part of the distributor.

It is inconceivable to me how the Government expects health care facilities to provide quality nutrition services based on a good dietary regime while imposing regulations that restrict our buying power.

The patient expects quality food, the supplier expects payment of his bills. Health institutions find themselves in the middle trying to accomplish both goals, only to be stymied by high food prices.

Our community involvement in feeding the elderly on a "Traveling Meals, Inc." has been delayed by the high cost of food. The elderly can afford only a certain price per meal. We must be sure that we can provide nutritious meals at this cost before putting anymore financial burden on the hospital. Frustration once again.

In my opinion it is imperative that the Government do an indepth study on the cost of food, from the grower or producer to the packer, to the distributor, to the consumer.

STATEMENT BY FRANK SANDS

I am Frank Sands, president of Sands, Taylor, and Wood Company of Cambridge, Massachusetts, a flour distributing and bakery supply company which has been in business since 1790. I'm also vice president of the Massachusetts Retail Bakers Association, and I would like to speak as a representative of both these segments of the food business. I'd like to briefly outline the way I view the current situation on food prices and their effect on distributors and bakers in this area, relating in general to all bakery ingredients and specifically to wheat flour.

As a background, the bulk of these commodities the bakers use are shipped by rail and truck interstate for some two dozen bakery supply and wholesale grocery distributers in this area. We, in turn, distribute to bakers, restaurants, and institutions who transform the ingredients into finished food products for the consumer. A consumer who, as an American, has enjoyed the lowest percentage of disposable income spent for food anywhere in this world.

In the past, and as recent as less than two years ago, prices for flour varied as much as half a cent a pound, or in terms of our business, fifty cents per hundred pound bag in a year. This year, that variation has more than once occurred in one day. As I think as we all know by now, this was changed by the Russian wheat deal. The Russian wheat deal was precipitated by a world crop failure which we Americans didn't adequately know about and by the clever Russian buying of practically all our excess wheat, which ultimately left us with a very real possibility that this year we might use up our entire carry-over or surplus and run out of wheat before our new crop was grown.

The underlying cause, however, is a general up grading of world food consumption combined with the fact that as with energy resources the world is reaching the limitations of its capacity to sustain itself, given the present growth and consumption trends.

For example, world need for animal feed grain today is increasing at the rate of 600 million bushels per year, and for wheat alone, at the rate of 400 million bushels per year. Consider this 400 million per year increase in light of the fact that our anticipated record 1974 wheat crop is expected to be 2.1 billion bushels, roughly only five times the anticipated annual increase for wheat in the world. The U.S. consumer today is now competing with the oil rich countries of Africa, the Middle East, and Asia. These people who have spoken to you this morning are doing this. As well as they are competing with the monopolistic buying power of the communist countries.

In the short supply market, such as this past year, the only limiting factor to the price of wheat is when somebody says some where in the world "I can't afford to eat it any more." And as long as the means exist, people will use them to prevent starvation. Thus, we saw the price for our wheat climb from a dollar fifty a bushel to the unprecedented level of three dollars. A level which everyone thought would never be reached. But, it didn't stop there, it rose to four dollars, then to five dollars, and then past six dollars a bushel, four times that of the previous year. Try relating 400 per cent increases to other items we're talking about today. Suddenly, there are no exports any more.

I'm certain that export figures, the unwillingness of the USDA and an influx of speculators, combined with the best even now as a barely marginal surplus, there is enough grain in the world today, Congresswoman, to feed us for about two and a half weeks if we had a total crop failure. These factors combine to recreate the bewildering and unpredictable volability of prices, prices which as I have said, at times have fluctuated as much in one day as they have done in an entire year previously. This price tornado has forced the closing of an unusually large number of bakeries who are unable to compete with others who had the luck, and I use that word advisedly, to purchase major ingredients at low levels or had the financial resources to sustain loss which their competition could not.

It has been aggravated by other factors, such as higher freight costs and a deplorable performance of our railroads, which have been bankrupted by intractable unions and self serving management, and by soaring related costs such as paper, for flour bags and packaging; the well publicized cost of energy, it takes a lot of heat to heat a baker's oven. And practically everything else a baker uses. It is a seller's market today, the distributor and the baker are often forced to accept prices date of shipment, as we are now experiencing in sugar which jumped two dollars a hundred weight yesterday, without warning.

Naturally, these costs are going to have to be passed on to consumers. This is a particularly difficult thing to do for a retail baker, for example, who is personally confronted daily by customer resistance to valid increases. For the distributor as well, these are particularly difficult times, because his customers pressure him to protect him against increases and yet expect him to immediately reflect any declines for substantial inventory and transit, and in warehouses, this is virtually impossible to do. And yet today, the vast majority if not all the flour distributors in America, are selling products at a loss due to the recent decline of wheat prices from the six dollar level.

Consider too, the flour users who contracted several months coverage when wheat was at the six dollar level and we thought it might go to seven dollars. And these people now see a price close to four dollars and fifty cents. That translates to about three dollars and fifty cents a hundred weight varia-

tion on a sack of flour that people are experiencing an opportunity loss of business today, a twenty percent variation from the market high and a fifty percent variation from the low. The losses that the distributors and the bakers have absorbed and are now absorbing is staggering.

This could have been prevented by a more responsive government, specifically by the Institution of Wheat Export Controls at the proper time until the upward price spiral subsided at a much lower level. Today, however, American consumers must now face up to the fact that a greater proportion of their disposable income will henceforth be required for food. We must support research and more productive foods, just as we should be pursuing alternative sources for energy. For ultimately, even all these factors interrelate. We must better plan for the production and use of our food resources, especially by relating to world food needs. We can no longer afford to plan strictly in terms of our own country, isolationism must become an historical word.

On the other hand, Americans, both business people and consumers, should not be forced to bear the cost burden of correctable government mistakes. Just as responsible, capable, government can largely preclude mistakes so also effective measures should be taken to cure the mistakes which do occur, so that many people are never again so badly hurt in this process.

THE ARMENIAN GENOCIDE—1915–18

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Massachusetts (Mr. CRONIN) is recognized for 10 minutes.

Mr. CRONIN. Mr. Speaker, this past Sunday I had the privilege of joining the Armenian Community of the Merrimack Valley of Massachusetts in their annual commemoration of the massacre of the Armenians by the Turks in 1915. For the Armenians, the massacre commenced the elimination of 2 million Armenians from the Ottoman Empire; for the world, it marked the first policy of genocide witnessed in modern times.

The U.S. delegation to the recent sessions of the United Nations Commission on Human Rights supported Turkey and other nations in their efforts to delete references of the Armenian massacre from the report on genocide submitted to Sub-Commission on Prevention of Discrimination and Protection of Minorities. In addition the U.S. maintains a policy of financial aid to Turkey in exchange for the promise to end the production of opium which Turkey is now exploiting by requesting more money to halt poppy crop production.

I object to these policies and believe that at a time when America needs to improve her relationships around the world that we should not fail to recognize the achievements of the Americans of Armenian descent. We should acknowledge the many important contributions of that country to the United States, and support the Armenian people.

The following are excerpts from a book entitled "The Armenian Genocide" which clearly explain the position of the Armenians.

THE ARMENIAN GENOCIDE—1915–1918

In the spring of 1915, when European powers were involved in a struggle of life and death and could not or would not exert any influence upon Turkey, the Turkish Government resolved to solve the Armenian Question once and for all and embarked upon the execution of the policy of mass extermination of the Armenians.

On April 24, 1915, the Armenian intellectuals and national leaders of Constantinople and the provinces were arrested wholesale and were exiled to the interior of Anatolia, where they perished, either on the way or upon arrival at their destinations. Thereupon, after the civilian population was disarmed and the males drafted into the army, the villages were cut off, and the helpless victims were subjected to a systematic deportation and massacre at the hands of the regular army, the police and armed irregulars.

In this manner, deportation of the whole Armenian villages and towns followed one after another. Nearly two million Armenian men, women and children were forcibly ejected from their homes and, amid indescribable sufferings, were driven to the deserts of Syria. The greater number of the males were brutally murdered on the way, women were dishonoured or seized for a life in the harem, and many of the children were islamized. The survivors were subjected to untold misery and suffering. Of the deported population, half perished on the way by outright slaughter, famine and disease, or because of the insufferable desert life. The remnants, upon reaching their desert destinations, were subjected again to wholesale massacres (Der-Zor, Ras-ul-Ain).

In some places the Armenians were not even deported. They were simply massacred or burnt alive on the spot.

The entire property of the Armenians was either seized by the government or was looted by the mob or by highway bandits. Incalculable stores of cultural and material wealth were doomed to destruction, and an entire people with an ancient civilisation was crucified and martyred most brutally.

Under those conditions Armenians resorted to self-defence in a limited number of places (Van, Mussa Dagh, Shabin Karahissar, Urfa), with primitive weapons and died a heroic death.

The Armenian massacres have been presented extensively, together with numerous documents and testimonies of eye-witnesses, in Viscount Bryce's *The Treatment of Armenians in the Ottoman Empire 1915-1916* (a Blue Book submitted to the British Houses of Parliament) and in Dr. Johannes Lepsius's *Deutschland und Armenian 1914-1918*. Professor Arnold Toynbee's *"Armenian Atrocities, The Murder of a Nation"*, Ambassador Morgenthau's *"The Secrets of the Bosphorus"*, and *"The Tragedy of Armenia"*, and Fridtjof Nansen's *Armenia and the East"* are some of the sincere testimonies of eminent men.

Selections from these testimonies are given hereunder:

HENRY MORGENTHAU

American Ambasador at Constantinople

The conditions of the War gave to the Turkish Government its longed-for opportunity to lay hold of the Armenians. At the very beginning they sent for some of the Armenian leaders and notified them that, if any Armenians should render the slightest assistance to the Russians when they invaded Turkey, they would not stop to investigate but would punish the entire race for it.

During the spring of 1914 they evolved their plan to destroy the Armenian race. They criticised their ancestors for neglecting to destroy or convert the Christian races to Mohammedanism of the time when they first subjugated them. Now, as four of the Great Powers were at war with them and the two others were their allies, they thought the time opportune to make good the oversight of their ancestors in the fifteenth century. They concluded that, once they had carried out their plan, the Great Powers would find themselves before an accomplished fact and that their crime would be condoned, as was done in the case of the massacres of 1895–1896, when the Great Powers did not even reprimand the Sultan.

They had drafted the able-bodied Armenians into the army without, however, giving them arms; they used them simply to build roads or do similar menial work. Then, under pretext of searching the houses for arms, they pillaged the belongings of the villagers. They requisitioned for the use of their army all that they could get from the Armenians, without paying for it. They asked them to make exorbitant contributions for the benefit of the National Defense Committee.

The final and worst measure used against the Armenians was the wholesale deportation of the entire population from their homes and their exile to the desert, with all the accompanying horrors on the way. No means were provided for their transportation or nourishment. The victims, who included educated men and women of standing, had to walk on foot, exposed to the attacks of bands of criminals especially organised for that purpose. Homes were literally uprooted; families were separated; men killed, women and girls violated daily on the way or taken to harems. Children were thrown into the rivers or sold to strangers by their mothers to save them from starvation. *The facts contained in the reports received at the Embassy from absolutely truthworthy eye-witnesses surpass the most beastly and diabolical cruelties ever before perpetrated or imagined in the history of the world* (underlined by the author). The Turkish authorities had stopped all communication between the provinces and the capital in the naive belief that they could consummate this crime of ages before the outside world could hear of it. But the information filtered through the Consuls, missionaries, foreign travellers and even Turks. We soon learned that orders had been issued to the governors of the provinces to send into exile the entire Armenian population in their jurisdiction, irrespective of age and sex. The local officers, with a few exceptions, carried out literally those instructions. All the able-bodied men had either been drafted into the army or disarmed. The remaining people, old men, women and children, were subjected to the most cruel and outrageous treatment (3).

THE TAPE CONTROVERSY

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Illinois (Mr. YOUNG) is recognized for 3 minutes.

Mr. YOUNG of Illinois. Mr. Speaker, during the past several weeks, there has developed a controversy between the White House and the Judiciary Committee about the number of tapes to be furnished to the Judiciary Committee.

In connection with the inquiry by the Judiciary Committee, they have subpenaed approximately 42 White House conversations, and the White House is presently reviewing these tapes in preparation to turning over the ones the White House determines are relevant.

This is not an acceptable method of

procedure. Clearly, the President should not make the determination as to what is or what is not relevant when his actions are under investigation.

On the other hand, I do not believe that the Judiciary Committee should have unlimited access to all White House executive records, including nonrelevant conversations and documents.

It seems to be that the proper procedure for determination of which tapes and documents are relevant should be jointly made by the counsel for the President, Mr. James St. Clair, and by the counsel for the Judiciary Committee, Messrs. Doar and Jenner. These three men are all outstanding attorneys, and should be able to come to mutual agreement on the determination of which tapes and portions of tapes, and which documents and portions of documents are relevant and should be produced for the Judiciary Committee inquiry.

In the event that there would develop a dispute between the President's counsel and the counsel for the Judiciary Committee, the U.S. courts would then be the appropriate body to resolve any such controversy.

Some members of the Judiciary Committee have stated that they do not feel that the U.S. courts should have any participation in respect to any aspect of the impeachment inquiry. Such a position overlooks the very basic elements of our three-branch Government. The U.S. courts are the only proper place to determine a dispute between the legislative branch and the executive branch, in the event they cannot otherwise resolve their controversy.

ISRAEL CELEBRATES 26TH ANNIVERSARY AS A NATION

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Illinois (Mr. ANNUNZIO) is recognized for 5 minutes.

Mr. ANNUNZIO. Mr. Speaker, I take great pleasure in saluting the people of Israel on the occasion of the 26th anniversary of the founding of their nation, which this year is being celebrated on April 25. It was on the 6th of Iyar, May 15, 1948, that the Israeli people proclaimed their independence and founded the Republic of Israel—a strong and prosperous nation.

The ancient Hebrews first entered the land of Israel about the 18th century B.C., when the patriarch Abraham led his people to what was then called Canaan—later known as Palestine. These tribes settled there until they were captured and enslaved by the Egyptians. In the 14th century B.C. Moses led them in the exodus from Egypt and back to the Promised Land. After many years of such persecution, separation from their homeland, and assaults on their ethnic heritage, the Jewish people today have remained an honorable and determined people.

The Jews traditionally believed that their return to the Promised Land would be accomplished symbolically with the appearance of the Messiah, but in the late 19th century the concept of a political return began to develop and gain acceptance. Gradually Jewish communities began to be established in Palestine as homes for the resettlement of the socially ostracized, politically disenfranchised, or physically persecuted, and were composed of Jews from nations all over the world who sought new, free lives in the Promised Land.

On November 29, 1947, the United Nations General Assembly adopted a plan calling for the partition of Palestine into separate Jewish and Arab states, with Jerusalem remaining under international control. On May 5, 1948, the last of the British garrison left Palestine, and on May 14 the establishment of the State of Israel was proclaimed by David Ben-Gurion, head of the provisional government, to become effective at midnight.

In Israel, there are over 1,000 libraries, 5,000 schools, 200 Talmudical colleges, 52 colleges, and seven major universities. Utilizing these institutions, along with their many museums, the Israelis have developed a preeminent educational system.

The Israelis have also made astounding progress in the economic development of their nation. They have cultivated their land, swampy in places, desertlike in others, into a virtual garden. Even more impressive is the fact that over the years, Israel has been engaged in a program of assistance to other countries in need of economic and technical expertise.

Israel also has a fine symphony orchestra, internationally recognized artists and sculptors, and Nobel Prize-winning authors.

During its 26 years as an independent republic, Israel has become a symbol of the courage, strength, ingenuity, and perseverance of her people. With its many different schools, an economic policy that rivals that of Western Europe, and a social climate that enhances the lives of every citizen, Israel has gained the respect of other nations as a leader in today's society.

It is with pleasure that I join my colleagues in congratulating the people of Israel on the occasion of this 26th anniversary of the birth of their nation. I wish peace and prosperity to the people of Israel, and I extend my greetings to all people of Jewish descent, throughout the world, as well as those Americans of Jewish descent in my own city of Chicago and all over this country who are joining in this celebration.

A PROGRAM FOR TAX EQUITY AND ECONOMIC STABILITY

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Washington (Mr. ADAMS) is recognized for 30 minutes.

Mr. ADAMS. Mr. Speaker, of utmost concern to the American people and the Congress is and should be the efficient and equitable functioning of our economy. There is now a good deal of debate going on about our present economic situation. The Nixon administration says we are not experiencing recession, that the economy will pick up and the inflation rate will fall. Others say we are, indeed, already in a recession. Some have even given up trying to make these distinctions and now claim the country is in a period of stagnation or slumpflation."

I have always felt, however, that facts and figures speak louder than words. The statistics for the first quarter of 1974 report to us that—

The GNP has fallen at an annual rate of 5.8 percent, the largest decline since 1958.

Inflation has risen at an annual rate of 10.8 percent, the steepest rate since 1951.

The Consumer Price Index rose in March at an annual rate of 14.5 percent.

Real spendable earnings of most of the work force have dropped 4.7 percent since last March.

The prime interest rate is running at almost 11 percent, a record high.

The Federal Reserve Bank has just raised the discount rate to a record 8 percent.

Demand for housing and automobiles, two of America's largest industries, is way down.

Nobel Prize Winning Economist Paul Samuelson translated these facts into a verbal diagnosis.

During the past 2 months, I have had a series of discussions with economists of the Brookings Institute and others about economic problems and policies. On the basis of those discussions, and the most persuasive economic facts above, I am convinced that the country is going through a period of serious economic decline and we in the Congress must move to quickly reverse that trend.

By this time, it appears that most people feel the country needs some stimulus to pull out of its slump. However, when it comes down to proposing solutions to our economic morass, disagreement, indecisiveness, and confusion again reign.

The administration says it would rather stimulate the economy by increasing Government spending than by cutting taxes, because spending is easier to cut off if necessary. Consequently, they have requested a $304 billion budget for fiscal year 1975, in addition to a $9.4 billion deficit.

However, as former Chairman of the Council of Economic Advisers, Walter Heller has indicated:

> The fiscal 1975 budget does not already provide such stimulus—a conclusion which is shared, after close inspection of the budget figures, by the Council of Economic Advisors, the Federal Reserve Bank of St. Louis, the Congressional Research Service of the Library of Congress, the Conference Board in New York—to name nothing but impeccable authority.

I believe a better alternative is to give the economy a little more stimulus through a payroll tax cut and increase revenues by closing the loopholes enjoyed by the practically tax-free oil industry.

Therefore, I am proposing the following tax measures: a one-third cut in social security taxes paid by all employees and the self-employed.

Elimination of the percentage depletion allowance and deductions on U.S. income taxes for intangible drilling expenses for both foreign and domestic oil and gas.

Elimination of U.S. tax credits for foreign taxes and royalty payments paid by oil companies to foreign governments.

Repeal of the assets depreciation range which allows businesses to write off their investments in plants and equipment at a rate 20 percent faster than before.

Strengthening of the minimum tax on the wealthy by increasing the tax rate, and disallowing certain deductions for preference income and for other Federal taxes paid.

PAYROLL TAX RELIEF

The greatest advantage to a social security tax cut over other reductions proposed by some of my colleagues, is that this cut will show up every week in workers' paychecks—not just at the end of the year in a larger tax refund. It will also diminish labor's demand for large wage increases which can only fire inflation. The effect of a one-third reduction—bringing the employees tax down from 5.85 percent to 4.2 percent and the self-employed from 7.9 percent to 5.85 percent—would be a $336 savings on an income of $8,000, a $420 savings on $10,000, a $504 savings on $12,000 and $630 savings on $15,000. The cut results in dollars being added to every paycheck a worker receives.

This extra money is terribly important to the country which as Walter Heller indicates—

It is sliding into a recession not because of materials shortages and supply bottlenecks but primarily because of a sag in consumer spending and in home buying, *i.e.* because of a lack in demand.

General inflation, plus payroll tax increases—social security taxes have risen 31 percent since 1972—have drained away 4 percent of the real spendable earnings of workers since last January, and this inflation, partially caused by a tremendous price upsurge in our most essential items like food, fuel, and housing, is eating away a much higher percentage of low incomes than of high incomes. Food prices rose over 20 percent last year, hitting hardest poorer families who spend 40 percent to 50 percent of their income on food. The same is true with regard to fuel, those prices have jumped nearly 100 percent in a year, as compared to the 1-percent increase per year since 1950. This tremendous loss of purchasing power is the same as if Congress enacted a $10 bill tax increase.

The one-third reduction in employee contributions will be made up from revenues gained from the loophole closing provisions of my tax reform package.

These reforms are aimed primarily at the profit-laden oil industry and wealthy individuals—neither of whom have carried their fair shares of the U.S. tax burden for many, many years. Equity in our tax system demands that we tax fairly the presently excessive profits and spread the money out through the economy.

FAIR OIL TAXATION

During the past year, particularly within the last 2 weeks, we have been bombarded with news about tremendous corporate profits. The most incredible profits are those reported recently by some of the oil companies. Since last year's first quarter, profits of American Petrofina have risen 176 percent, Standard Oil of Ohio up 29.1 percent, Gulf up 76 percent, Standard of Indiana up 81 percent, Ashland up 22 percent, Commonwealth up 457 percent, Exxon up 39 percent, Occidental up 717 percent, Skelly up 97.5 percent, Texaco up 123.2 percent.

I include the following chart:

PETROLEUM INDUSTRY—SALES/PROFITS 1ST QUARTER, 1974

	Sales	Percentage of change over 1973	Profits (millions)	Percentage of change
American Petrofina	[1] $213.1	189.0	$13.1	176.0
Standard of Ohio	[1] 482.9	27.2	22.6	29.1
Gulf	[2] 4,516.0	114.7	290.0	76.0
Standard of Indiana	[2] 2,278.4	55.0	219.0	81.0
Ashland	[1] 672.6	53.2	19.4	22.0
Commonwealth	[1] 298.5	227.6	15.6	457.0
Exxon	[2] 9,945.0	59.4	705.0	39.0
Occidental	[2] $1,334.9	95.9	$67.8	717.6
Skelly	[1] 214.4	39.7	19.7	97.5
Texaco	[2] 4,924.0	97.4	589.4	123.2
Amerada-Hess	[2] 983.2	142.6	49.9	54.9
Continental Conoco	[2] 1,600.0	71.8	109.2	129.9
Getty Oil	[2] 655.3	63.8	73.6	122.5

[1] In millions.
[2] In billions.

Source: Economics Division, Library of Congress.

What makes this news even harder to take is the fact that several of the oil companies are reporting that while their profits are way up, production was only up 1.4 percent, refinery production was down 3.5 percent, petroleum product sales were down 3.1 percent, and natural gas sales were down 4.3 percent. That means that the oil companies are not plowing their profits back into production as they have been claiming as justification for their high profits.

The major reason oil companies are reaping such huge profits—besides their gains from increased prices—is that they receive tax subsidies from the Federal Government in the form of the percentage depletion allowance, deductions for intangible drilling expenses, and U.S. tax credits for taxes and royalties paid to foreign governments. The tax benefits are obviously quite lucrative, especially for oil companies' foreign operations. For example, Texaco domestic operations accounted for about 27 percent of their total earnings, while their foreign operations pulled in 73 percent. Even the Federal Energy Office admits that the 1973 oil industry profits came mainly from foreign operations.

In effect, the Federal Government subsidizes the overseas operations of American oil companies to the tune of at least $5 billion a year due to depletion allowances, intangible drilling deductions, and tax credits for foreign taxes and royalties.

The percentage depletion allowance and the tax deductions allowed for intangible drilling expenses are two preferential tax breaks the oil and gas companies have enjoyed for the past 54 years. The depletion allowance permits the companies to deduct 22 percent of gross income right off the top. Theoretically, this deduction is intended to compensate the companies for the loss of oil and gas in the well. However, the deduction is unique in Internal Revenue Service law in that it does not require companies to invest or expend any money, and it is taken in addition to regular business deductions for capital assets depreciation.

Furthermore, the depletion allowance is claimed at the same rate each year during the life of the well, even though the Treasury Department estimates that oil companies recover their costs 19 times over before the well runs dry.

The second tax break going for the oil and gas companies is the deduction for intangible drilling, exploration, and development costs. While the tangible costs—such as pipes, derricks, heavy equipment, and so forth—are capitalized and must be depreciated at a stated rate, the intangible costs—like salaries, fuel, and so forth—may be deducted all at once in the year in which they occur. These intangible costs may amount to 75 percent of the amount of total development.

Supposedly, this provision postpones the tax rather than exempts it. In fact, however, the company can reinvest the money into new oil enterprises and avoid paying taxes indefinitely, thereby receiving an interest-free loan, courtesy of the Federal Government.

The third tax break is the foreign tax credit. It allows corporations to deduct, dollar for dollar, taxes paid to foreign governments from their U.S. tax liability. But whatever tax bill the corporation may still owe is paid only when it decides to send all or part of its profits back home.

The fourth tax break is the oil companies' practice of taking a credit on their U.S. income taxes for royalties they pay to foreign governments in return for access to oil and gas bearing lands. Whereas the rationale for allowing a U.S. tax credit for foreign taxes paid was to prevent double taxation of the oil companies, it was simply an administrative decision at some point to treat royalties as taxes.

In my opinion, both foreign tax and royalty payments should be treated as business expenses for the purpose of U.S. income tax liabilities. These expenses should simply be deducted from—not credited to—the oil companies' income taxes. Thus the result would be that the oil companies would not be taxed unfairly but would be taxed at the same rate as domestic businesses.

BACK TO NORMAL DEPRECIATION RATES

Another tax break enjoyed by all businesses, not just the oil industry, is the asset depreciation range—ADR. It was intended to stimulate a sagging economy, provide more jobs and give American business a more competitive position in world trade. Adopted as part of the Revenue Act of 1971, ADR allows businesses to write off their investments in plants and equipment at a rate 20 percent faster than previously—regardless of the time it actually takes for the equipment to depreciate fully.

Under the old rules, companies had to spread their depreciation allowances over the actual useful life of the equipment. This is no longer the case. The "reasonable allowance" for wear, exhaustion and obsolescence of equipment has climbed to a rate that permits companies to write it off faster than they replace it. The result is lower tax bills for the companies.

THE RICH AND TAXES

Last year, 402 Americans with incomes of $100,000 a year or more paid no income taxes at all. Because there are so many wealthy tax avoiders, the Congress enacted a minimum tax law in 1969, but it, too, is frought with tax loopholes. Thus, only about one-quarter of those with income taxable under the minimum tax law actually pay the tax.

The present law imposes a flat 10 percent on certain kinds of preference income not subject to Federal income tax. However, its effect is eroded because it allows the taxpayer to exempt the first $30,000 of preference income, and second, it allows the deduction from the preference income of an amendment equal to what is paid in Federal income taxes.

My proposal would remove the deduction for other Federal taxes paid, it would remove the $30.000 exemption on preference income, and it would tax preference income at one-half the rate paid for Federal income tax. On the tax rate, this change would make the minimum tax progressive, rising from 7 percent to 35 percent in the case of individuals, or to a maximum of 24 percent in the case of corporations. In those rare cases when people in low tax brackets are subject to the minimum tax, the proposed change would reduce their burden from the present 10 percent to 7 percent.

EQUITY IN THE TAX SYSTEM

I have discussed the ways in which wealthy individuals and corporations have slipped through the tax net, while the average worker is trapped in it.

CONCLUSION

I have demonstrated ways by which wealthy individuals and corporations have slipped through the tax net, while the average worker is trapped in it. The biggest, the most powerful, the wealthiest companies in America pay income taxes at a rate that is far lower than does the clerk or gas station attendant or police officer.

Our tax structure needs an extensive overhaul, and the proposals I have made in this testimony amount to net annual revenue gain. For too long, we have excused tax loopholes for the wealthy on the dubious ground that "they are good for America." It has not worked out that way, and the average American taxpayer is caught in a squeeze of paying more and more of the tax load.

Every time an individual or corporation ducks out the loophole door, someone else has to pick up the tab. And usually, it is the one who can least afford to do so.

HEARINGS ON NATIONAL HEALTH INSURANCE

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from California (Mr. CORMAN), is recognized for 5 minutes.

Mr. CORMAN. Mr. Speaker, this week the Ways and Means Committee began hearings on national health insurance. This indicates an increased commitment on the part of administration and congressional leaders to the enactment of a program that will eliminate existing deficiencies and inequities in health care.

In his testimony before the Ways and Means Committee on Wednesday, April 24, 1974, Secretary of Health, Education, and Welfare Caspar W. Weinberger said:

Comprehensive health insurance is a long-debated idea whose time for enactment has arrived.

I agree completely. To delay enactment of an adequate national health program means to continue with a situation in which needed health care is unobtainable for some and unaffordable to many—where people go without needed medical attention, because it is unavailable, inaccessible, or the cost is prohibitive.

I hope the administration and Congress will work together in the development of a program that assures everyone necessary care regardless of income or location, which reduces medical costs, and which encourages quality and efficiency in the delivery of medical care. I trust that during congressional deliberations on health insurance the Nixon administration will follow its own counsel and avoid what Secretary Weinberger called the "reckless attitudes of rule or ruin, our plan or no plan."

I am very pleased to join with Representative MARTHA GRIFFITHS in the following statement released April 23, 1974, pertaining to the scheduled hearings on national health insurance proposals:

NATIONAL HEALTH INSURANCE

(Statement of JAMES C. CORMAN, of California, and MARTHA W. GRIFFITHS, of Michigan)

The House Ways and Means Committee begins public hearings on the subject of national health insurance Wednesday, April 24, 1974. The scheduling of public hearings by Chairman Wilbur Mills reflects the growing consensus that there are serious deficiencies in the availability, quality, financing, organization and delivery of health care in the United States.

There are few individuals who would deny the existence of a serious crisis in health care. Most would agree it is comprised of the following problems:

(1) *A good many Americans are unable to obtain needed health care.* There is a very uneven distribution of physicians, hospitals, nursing home facilities and other health resources throughout the country. As of December 31, 1972 there were 140 counties in the United States which had no active physician for patient care.

(2) *Many families can no longer afford the medical care that is available to them.* Inflation in health care has outstripped the paychecks of not only the low but the middle-income American family. In fiscal 1973 the average health bill for each American was $441. This represented a 10.3 percent increase over 1972, a 35 percent increase since 1970, and was 3 times more than the average health bill in 1960. The increase in average medical costs since 1950 has been 2½ times as great as the increase in wage levels during the same 23 year period.

(3) *Soaring medical care costs have far outstripped the general economic growth rate and existing health delivery arrangements appear totally resistant to effective and acceptable cost and quality controls.* The past few years have witnessed sharp increases in the amounts spent for medical care in the U.S. In fiscal 1973, the Nation's total health and medical care bill was $94.1 billion. This represented a $26 billion, or 38 percent, increase since 1970. We spent 3½ times as much for health care in 1973 as we did in 1960 and almost 8 times the amount spent in 1950. In fiscal year 1950, total U.S. medical care expenditures amounted to $12.0 billion and represented 4.6 percent of the gross national product. By fiscal 1960, their share of the gross national product had reached 5.2 percent. The rate in 1970 was 7.1 percent, and last year it moved up to 7.7 percent.

(4) The variety and mix of existing public health programs (Medicare for the elderly and disabled, Medicaid for the poor with eligibility requirements, benefits and costs varying from state to state), private health insurance, a few prepaid medical programs, etc., have produced intolerable inequities in the availability and cost of health care for Americans. The most visible deficiency is that low-income Americans receive less medical care, are less likely to have health insurance coverage (less than one-fourth of the children in poor families have hospital insurance), and are generally less healthy than middle and high-income Americans.

(5) The fragmented, disorganized, and inadequately regulated combination of public and private health programs and institutions have resulted in unbearable mismanagement, waste, and coverage gaps, as well as unnecessary administrative complexities, costs and abuses.

Dozens of different national health insurance programs have been designed to deal with some or all of these problems, which together constitute the current health care crisis. Careful examination of the most prominent proposals reveals that the Health Security Act of 1973 (H.R. 22, S. 3), which was introduced in the House with over 70 cosponsors and in the Senate by 23 Senators, would deal most effectively and adequately with the five major problems in health care outlined above. It is the only proposal to receive serious consideration that assures everyone would receive adequate medical care and that most American families would pay less than they are presently paying for normal (non-catastrophic) medical care. It is the only proposal that offers any promise of establishing effective cost and quality controls and alleviating inequities, waste, ad-

ministrative expenses and complexities that exist under the current mixture of public and private health institutions.

Chairman Mills announced that the forthcoming Ways and Means hearings will focus on three health insurance plans: H.R. 13870, which was introduced on April 2, 1974 by Chairman Mills and Senator Kennedy; H.R. 12684, the Nixon Administration plan; and H.R. 1, which is sponsored by Congressman Al Ullman. The new bill introduced by Chairman Mills and Senator Kennedy and the Nixon plan are likely to receive the greatest attention during the committee deliberations.

As the Committee begins deliberations on these proposed national health insurance programs it should be understood that H.R. 22 (the Griffiths-Corman Health Security Act of 1973), the Nixon plan, and the new Kennedy-Mills proposal do not differ in terms of total cost. That is, the three programs will cost the American people approximately the same amount of money in terms of total dollars spent for health and medical care. They do differ substantially in regard to how many Americans will be assured needed medical attention, who pays for medical costs, or how health care costs are distributed and shared. And there are important differences in terms of realistic attempts to regulate the quality and costs of health care, to reorganize and improve the health delivery system, and to redistribute the availability of health care resources.

Adequate medical care is too important to the well-being of individuals, families and the nation as a whole to continue with a situation in which needed health care is unobtainable for some and unaffordable to many—where people go without needed medical attention because it is unavailable, inaccessible or the cost is prohibitive.

H.R. 22 would assure universal coverage for complete medical needs and reduce medical expenses for everyone by establishing a national insurance system of shared health care costs. The nation's total medical expenses will not be any higher under H.R. 22 than the Nixon or Kennedy-Mills plans. And, each family's medical expenses will be less.

Through a long-range national and regional budgeting process that compels hospitals and physicians to set their prices in advance and then stick to them, H.R. 22 would provide effective regulation of health costs. By encouraging prepaid health programs or health maintenance organizations, preventive medical care and office treatment, it would substantially improve the present health delivery system and the quality of health care received by many Americans.

The Nixon health plan introduced last February is better, in terms of increased coverage and expanded benefits, than the previous Administration proposal. However, the new proposal would still have a limited impact on the five major problems in health care we have identified.

It does not assure that everyone would receive needed medical coverage. In fact, it is a voluntary plan that guarantees large gaps in medical coverage and little improvement in the quality and cost of health care for most families. It provides strong incentives for employers not to hire (and thereby offer health insurance benefits to) the elderly, handicapped and others most in need of medical attention and insurance coverage.

The use of deductibles ($150 per person with a maximum of four per family) and coinsurance (25% beyond the deductibles up to a maximum of $1,500 for a family) makes the plan little more than a catastrophic health care program. For those covered, it would reduce major or catastrophic health expenses, but it would not reduce medical expenses for the vast majority of families.

The Nixon plan depends almost completely upon insurance companies and state agencies to provide cost and quality controls. Because these institutions have proven to be totally ineffective in controlling costs, the plan promises a continuation of health care cost inflation at the current rate of over 10 percent a year.

The Administration program guarantees increased profits for all segments of the health care industry and promises increased medical costs. It does not guarantee that needed health care will be available and obtainable for everyone. It would provide "welfare" for insurance companies rather than improved and less expensive health care for American families.

The new Kennedy-Mills proposals resembles in major respects the Nixon program. However, it does improve upon the Administration bill to the extent that it incorporates some of the fundamental principles and features of H.R. 22, such as Social Security financing, support of health maintenance organizations and quality controls.

With coverage based on mandatory payroll deductions and Social Security eligibility, more Americans would receive benefits under the Kennedy-Mills plan than under the Nixon proposal. However, it does not provide for universal coverage. Some of the most obvious gaps in coverage affect those earning less than $400 a year, institutionalized persons, students and some aged and disabled not eligible for Social Security.

The use of deductibles ($150 per person with a maximum of two per family) and coinsurance (25% beyond the deductibles up to a maximum of $1,000 a year for a family) means that, like the Nixon program, the Kennedy-Mills bill would not reduce the out-of-pocket medical expenses for most families. As described in *The New Leader*, it "would pay some benefits to some of the people some of the time."

The system of deductibles and coinsurance, plus a means test for low-income families in the Kennedy-Mills bill would result in mind-boggling administrative and account-keeping procedures. Somewhere, someone will have to keep an account for every covered individual and family in order to keep track of yearly deductible and coinsurance payments.

The use of insurance companies as "fiscal intermediaries" will reduce the amount of health care purchased by each family's dollar by the amount insurance companies take out for profits and expenses. It retains the complexities, inefficiencies and potential for abuse already existing in Medicare and Medicaid and repeats the Medicare mistake of leaving cost and quality controls largely in the hands of insurance companies and other "fiscal intermediaries."

The Kennedy-Mills plan has been promoted as a compromise between H.R. 22 and the Administration's bill, and as the national health insurance proposal having greatest chance of enactment. However, it would not provide an adequate and acceptable national health program unless major improvements are made which move it substantially closer to H.R. 22.

Specifically, provisions must be added which would eliminate the gaps in coverage and assure that everyone would receive needed medical care.

More stringent and realistic cost and quality controls, like the long-range budgeting features of H.R. 22, must be incorporated.

The insurance companies should be dropped. Whether as carriers or "fiscal intermediaries", there is overwhelming evidence that they would not contribute to effectiveness or efficiency of a national health program. Public funds should be administered by public officials.

Modifications in the financing features that would promise a reduction in current out-of-pocket medical expenses for families, such as reducing or eliminating deductible, coinsurance and Medicare premiums and greater use of general revenues, are necessary.

Medicare should be combined with the national health program so we would have one program, one administrative mechanism, one payroll deduction, one set of benefits for everyone. And provisions must be added that would protect current Medicare and Medicaid recipients in all states from a reduction in benefits when these programs are replaced.

The benefits should be expanded with greater emphasis on preventive services; and measures should be added that provide greater incentives for the development and use of health maintenance organizations and more explicit directives to redistribute the availability of physicians and other health resources.

The Kennedy-Mills bill will provide an adequate and acceptable national health program to the extent that it incorporates features in H.R. 22 that are needed if it is to deal effectively with the problems that comprise the health crisis. If the forthcoming Ways and Means deliberations are going to focus on the Kennedy-Mills bill, we are hopeful discussion will be directed toward the deficiencies we have identified and the incorporation of improvements we have suggested.

NATIONAL CITIZENS' COMMITTEE FOR FAIRNESS TO THE PRESIDENCY

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Tennessee (Mr. FULTON) is recognized for 5 minutes.

Mr. FULTON. Mr. Speaker, in recent weeks I have submitted for the RECORD the names of these citizens in my district—Tennessee's Fifth—who have signed petitions on behalf of the President of the United States. These individuals are exercising their right, indeed their duty, to speak out, to voice their views in these troubled times. As participants in the activities of the National Citizens' Committee for Fairness to the Presidency, they are living up to their responsibility to participate in our political system, and I would like to commend these of my constituents to the attention of my distinguished colleagues:

Mary F. Black, Bettye T. Sellers, Don E. Ansley, Perry L. Williams, Bernice Williams, Jocelyn S. Davis, L. N. Guer, Louise S. Walden, Eugene H. Smith, Gale Clark, Jeanne Akin, William T. Davis, E. S. Medaugh, and Mrs. E. H. Medaugh.

J. M. Dickinson, Elizabeth T. Dickinson, Howard E. Frost, Jr., Evelyn L. Frost, Hampton J. Barnes, Thom M. Thomas, Elizabeth D. Jackson, Morse Kochtetzby, MD., Marjorie Kochtetzby, Thomas R. Dickinson, Charles D. Jacobs, Sandridge H. Taylor, Morris W. Hickman, June M. Price, and Hart J. Hill.

U.S. CENSURE OF ISRAEL

The SPEAKER pro tempore. Under a previous order of the House, the gentlewoman from New York (Ms. HOLTZMAN) is recognized for 15 minutes.

Ms. HOLTZMAN. Mr. Speaker, I am deeply dismayed that the United States has joined in the United Nations Security Council resolution censuring Israel for its raid on Palestinian guerrilla bases in Lebanon.

I believe this action by the Nixon administration is disturbing not only to those of us who are concerned with the security of Israel, but to all Americans who believe the United States should

play an even-handed and moderate role in the Middle East.

The Security Council resolution ignores the brutal and cowardly massacre at Kiryat Shimona which led to Israel's action. In joining this resolution, the United States joins with those nations who have always opposed Israel, and who feel that any actions that Israel takes in self-defense are wrong. The massacre at Kiryat Shimona was the work of the same lawless terrorists who hijack planes and murder innocent civilians at airports. How can the United States condemn Israel without even referring to this other, very bloody side of the issue?

In addition, the Security Council's censure is certain to damage morale in Israel, which already feels isolated and besieged, staggering under the toll of the Yom Kippur War. It is inexcusable that the United States, Israel's sole remaining ally, should choose this moment to slap it in the face.

Finally, I doubt that Ambassador Scali was accurately representing the will of the American people when he cast our vote for the censure. The overwhelming majority of Americans was shocked and horrified by what took place at Kiryat Shimona. I cannot believe they would support a resolution that condemns the Israeli action against the terrorist sanctuaries without acknowledging this bloody provocation.

I have written to Ambassador Scali and Secretary of State Kissinger indicating my opposition to this action. I hope that my colleagues in the Congress will do the same, so that the United States will never again lend support, in the United Nations or anywhere else, to those who would destroy Israel through murder and terror.

EARTH DAY AT NATIONAL CATHEDRAL

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from California (Mr. VAN DEERLIN) is recognized for 5 minutes.

Mr. VAN DEERLIN. Mr. Speaker, the national observance of Earth Week has come at a time of understandable concern for environmentalists. On every hand, it seems, the fight for clean air, for pure water and for an unmarred countryside has given way to other needs.

Fuel shortages of recent months give some hint of the crunch that lies ahead as we seek to balance industrial and economic need against a strong national desire to halt despoilation. Only today the Interstate and Foreign Commerce Committee, in marking up a new emergency energy bill, was making judgments between those often divergent interests.

But America's determination not to undo nature's handiwork remains very strong. It will find expression this Sunday at the National Cathedral here in Washington, at a service devoted to Earth Day.

Especially for this event the cathedral's dean, the Very Reverend Francis B. Sayre Jr., has written a Litany of Intercession, a responsive prayer in which the congregation will participate. Dean Sayre's litany follows:

LITANY OF INTERCESSION

Shine, Thou perfect Maker, Thy radiant light upon our tiny lives;
Unfurl Thy glory,
On earth O Lord.

Lest we mock the freedom Thou hast given us by loving less than Thou hast loved,
Unfurl Thy glory,
On earth O Lord.

Bless our kinship to every spark of life, exchanging with each the wonder of Thy miracle;
Unfurl Thy glory,
On earth O Lord.

Forgive our hands too hasty upon the gentle land, rudely spoiling what Thou so patiently prepared;
Unfurl Thy glory,
On earth O Lord.

Give us the gladness of mountains, O God; joy of unsullied seas, of fields and tossing trees and water pure, all conspiring to:
Unfurl Thy glory,
On earth O Lord.

That we may cherish Thy gifts and consecrate them untorn and fresh to the thanskgiving of each race unborn;
Unfurl Thy glory,
On earth O Lord.

For Thine is the bounty, Merciful Father, of the bread and of the wine, of body and blood, and of the infinite mystery of precious Creation. Such the heritage trusted to our hand; faithful then may we be as stewards of Thy glory, that all may behold at last Thy blessing upon the earth.

Amen.

WHY THE BYRD AMENDMENT SHOULD BE REPEALED

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from New York (Mr. RANGEL) is recognized for 5 minutes.

Mr. RANGEL. Mr. Speaker, as you are well aware, we are currently involved in a fight in the House of Representatives to repeal the Byrd amendment. It is my contention that the Byrd amendment must be repealed for many reasons, but perhaps none are more persuasive to my colleagues in the House than those which speak to the self-interest of the United States. Aside from the moral questions involved in continued U.S. support of the illegal, minority white regime in Rhodesia, the Byrd provision is not essential to our national security, brings us no real economic advantage, and is detrimental to the conduct of our foreign relations. Such is the professional judgment of the distinguished Secretary of State, Henry Kissinger.

The Byrd provision is not essential to the national security of the United States, although some special interest would have it so. There are 700,000 tons of "excess" ferrochrome in the U.S. stockpile—390,000 excess tons of high carbon ferrochrome and 319,000 tons of low carbon ferrochrome. The Nixon administration is currently seeking their release. Of the total amount of ore in the stockpile, 2.3 percent is needed for defense projects. It is estimated that there is enough ore for 40 years. There are some who contend that we should not depend on the Russians for our supply of chrome imports. Thus, the Byrd amendment is a credible effort to reduce this dependence. A brief history shall dispel these dubious arguments.

In 1964, 4.7 percent of U.S. chrome imports were derived from the Soviet Union. In 1966, before sanctions, this trade increased to 58 percent. In 1968, 1969, and 1971—during sanctions—58 percent of chrome imports came from the Soviet Union. In 1972, after the removal of chrome sanction, reliance on Soviet chrome continued at 58 percent. Chrome trade with Rhodesia has not diminished the dependence of the United States on Russia for chrome ore.

"The Byrd provision brings us no economic advantage." Some state rather erroneously, that the Byrd amendment was the essential element responsible for reducing the price of chrome ore. The rise in steel production is a more credible reason why chrome prices rose in 1971. In 1972 the price of ore decreased as steel production decreased. Any layman knows that as the demand rises so does the price and vice versa. Although the Byrd amendment was a factor, there were other major market factors compelling the price reduction. In support of this statement, Assistant Secretary of State for Economic and Business Affairs, states "general market and economic conditions govern chronic prices rather than the Rhodesian embargo." Whatever may be the disruptions followed by the reimposition of the Embargo by the United States, we believe they can be accommodated.

There have been adverse effects from the Byrd amendments. Two out of four U.S. ferrochrome plants, Ohio Terralloy in Brilliante, Ohio, and Foote Mineral in Steubenville, Ohio, have gone out of business. As a result, 700 jobs have been lost.

"The Byrd provision is detrimental to the conduct of our foreign relations." The U.S. relationship with the U.N. has been eroded by our charter obligations. This situation is further exacerbated by the fact that the United States is the only overt violator of the U.N. sanctions on Rhodesia.

The U.S. relationship with Africa is strained by the presence of the Byrd amendment. The former Assistant Secretary of State for African Affairs, David Newsom stated:

> In my four years as Assistant Secretary, the exemption on Rhodesian sanctions has been the most serious blow to the credibility of our African policy . . . the impact is greatest in countries where we have various specific interests, such as Nigeria and Kenya, and is greatest among the youth who are the coming generation in Africa.

In the issue of Industry Week magazine, which appeared on January 7, 1974, the following paragraph appeared:

> Over the last 18 months, there seems to have been a growing appreciation both in Whitehall and British industry that there is a real economic case for the maintenance of sanctions quite apart from the political and ethical ones that have had to take the burden of the argument in the past.

Secretary Kissinger has written—

> The Byrd provision has impaired our ability to obtain the understanding and support of many countries including such important African nations as Nigeria, a significant

source of petroleum and a country where we have investment of nearly 1 billion.

In conclusion, Mr. Kissinger's statement that the Byrd amendment is deleterious to U.S. interests both domestically and internationally seriously undermines the specious case of those who would uphold the Byrd amendment.

IMMIGRATION AND NATURALIZATION SERVICE SEMINAR

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Pennsylvania (Mr. EILBERG) is recognized for 5 minutes.

Mr. EILBERG. Mr. Speaker, I wish to announce that another meeting in a series of seminars is scheduled for Monday, April 29, to be conducted by the Immigration and Naturalization Service. This seminar will commence at 9:30 a.m. in room 2237, Rayburn House Office Building.

During the seminar, representatives of the Immigration and Naturalization Service will discuss the statutory requirements for naturalization as well as the procedures to be followed in petitioning for one's naturalization.

In addition, the seminar will include a discussion of matters dealing with expatriation, derivative citizenship, and acquisition of United States citizenship at birth in a foreign country.

Once again, all interested staff members, particularly those who handle immigration and citizenship matters, are invited to attend this seminar.

PERSONAL EXPLANATION

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Pennsylvania (Mr. YATRON) is recognized for 5 minutes.

Mr. YATRON. Mr. Speaker, I am submitting the following personal explanation for the CONGRESSIONAL RECORD, relative to an erroneous vote which I recently made.

On April 4, the House considered H.R. 12565, the supplemental defense appropriations bill. Rollcall No. 147 was a vote to increase aid to South Vietnam. The amendment was rejected by a recorded vote of 154 ayes to 177 noes. My vote is recorded as aye, although it was my intention to vote against increasing aid to South Vietnam.

I am making this statement to reflect my true intent to vote "nay," in opposition to increased assistance to South Vietnam.

IS THERE AN EFFORT TO BRING DOWN ARAB OIL PRICES?

(Mr. SIKES asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. SIKES. Mr Speaker, the administration has been strangely quiet about the high and unreasonable prices placed on oil by the Arab producing countries. Oil prices were doubled and redoubled by Mideast oil producing countries during the period of the October war. This pricing policy represents a greedy grab for power and profit. It is resulting in higher oil prices and in a threat to the economy of oil consuming nations.

Despite the obvious efforts of the United States to bring peace to the Mideast, there has been no reciprocal action other than a temporary lifting of the oil embargo by the Arab States. Nor has there been, and this is the strangest part, any indication of an effort by the American State Department to bring Arab oil prices within reason.

A decision to maintain unrealistically high prices is obviously not in the best interests of oil consuming or oil producing nations. The Arab States do not need the money higher oil prices will bring. Present prices will in time make it impossble for any nation which must have Arab oil to show a favorable balance of trade. They could even bankrupt some nations.

The United States cannot require a change in oil pricing policies by the Arabs but at least we can base some of the proposed benefits to Mideastern nations upon reciprocal action on their part. If the United States and other Western powers ignore the price gouging policy, it will have the effect of placing the stamp of approval upon it.

TOWARD A 100-KNOT NAVY

(Mr. SIKES asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. SIKES. Mr. Speaker, the Navy's goal of a "100-knot Navy," fleet capable of speeds of over 100 miles per hour, is closer to reality with announcement that the SES–100B surface effect ship has achieved more than 92 miles per hour during a test mission at the Naval Coastal Systems Laboratory at Panama City, Fla. This is a world record and is all the more spectacular because the 80-foot research craft is only the forerunner of a destroyer-sized vessel now in the design stage and scheduled for construction by 1976. This is only one of many important accomplishments at the Naval Coastal Systems Laboratory.

I believe my colleagues will be interested in reading the Navy's recent release on this matter and I submit it for reprinting in the RECORD:

SES–100B

PANAMA CITY, FLA.—The U.S. Navy's SES–100B Surface Effect Ship test craft achieved a speed in excess of 80 knots (92 miles per hour)—a world record for this type of vessel.

Textron's Bell Aerospace Division of New Orleans, Louisiana, which developed and now is testing the 100-ton propeller-driven craft for the Naval Material Command's Surface Effect Ships Project Office (PM–17), set the world speed record for this type craft during a test mission here on Tuesday, April 16, 1974. Prior to the high-speed run, Dr. David S. Potter, Assistant Secretary of the Navy for Research and Development, had participated in a test mission in the Gulf of Mexico and had operated the SES–100B for 30 minutes at speeds of more than 60 knots.

The record speed was accomplished during tests on an instrumented range, and the speed was recorded by highly-precise tracking radar, operated by U.S. Navy personnel.

A six-man Bell Aerospace/Navy crew was on board the SES–100B for the high-speed test mission. Captain Gordon H. MacLane (USCG-Retired), Bell's craft commander was at the controls. Other crew members were Lt. Robert Hartman, USN, Navy craft commander; Charles E. Lester, first officer; Alvin T. Thawley, test director; John S. Wakefield, data acquisition engineer; and Frank L. Richter III, chief of the boat.

The crew described the craft's stability as "excellent" and said they had a smooth ride throughout the high-speed operation. Bell Aerospace engineers reported that the craft performed flawlessly. They said the speed achieved was extremely close to predictions based upon analysis and model test data.

The record speed run followed the successful completion of testing necessary to confirm the technology for the design of a 2,000-ton ocean-going Surface Effect Ship. During missions in the Gulf of Mexico, the SES–100B has operated for considerable periods of time in high sea states, and has repeatedly demonstrated performance, stability and habitability exceeding expectations.

In addition, the Bell-developed SES–100B was the first Surface Effect Ship to expand its operating envelope to more than 70 knots (82 miles per hour). This milestone took place in testing on Louisiana's Lake Pontchartrain more than a year ago.

The extensive technical data being generated by the heavily-instrumented SES–100B is being used by the Navy and Bell Aerospace to validate the predictions and design features to be incorporated into larger Surface Effect Ships in the 2,000-ton class.

The SES–100B, almost 78 feet long with a beam of 35 feet and weighing a little more than 100 tons, rides on a drag-reducing cushion of air contained by catamaran-style side hulls and flexible bow and stern seals.

The air cushion is generated by eight lift fans driven by three marine gas turbine engines. When cruising, the center portion of the hull is clear of the water and the craft supported almost entirely by the air cushion with only the lower surfaces of the catamaran side hulls skimming the surface for stability and propulsion.

Propulsion for the craft is provided by three marine gas turbines which drive two semi-submerged, controllable pitch, supercavitating propellers.

ISRAEL'S 26TH ANNIVERSARY

(Mr. KOCH asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. KOCH. Mr. Speaker, last year on the celebration of Israel's 25th anniversary, I joined with millions of people throughout the world in affirming that "Am Yisrael Chai"—"the people of Israel live." Today, on Israel's 26th anniversary, the certainty of her continued peaceful existence is in doubt, and the mood on what should be a festive occasion is somber. This tiny state was once again forced to fight for survival—the Arab attack on Yom Kippur, the holiest day of the year in the Jewish calendar, launched the fourth war in Israel's 25-year history. More than 2,000 men were killed in that war, and even today, 6 months after a cease-fire, men, women, and children continue to die on the Golan Heights and along the Lebanese border. Last week, the unprovoked, brutal attack on an Israeli village by Palestinian terrorists operating from within Lebanese territory resulted in the death of 18 people; 5 men, 5 women, and 8 chil-

dren, some of whom were thrown from rooftops.

Israel, in retaliation for the brutal murder of these 18 innocent civilians in the town of Kiryat Shimona, crossed into Lebanon, evacuated a village that harbored Palestinian terrorists, and then proceeded to destroy empty buildings. Not one person was killed. It is with a sense of outrage and moral indignation that I heard yesterday of the United Nations Security Council's resolution condemning Israel for its raid into Lebanon. The U.S. representative, John Scali, voted in favor of this resolution, although no mention was made of the brutal murder of 18 Israeli citizens. The Israeli delegation at the U.N. led by Yosef Tekoah walked out of this charade. In leaving, Mr. Tekoah said:

> My delegation will not be a witness to the travesty about to take place here . . . The resolution is another example of the bias and equity which prevail in the Security Council debates on the Middle East.

I am ashamed that our Government joined in this travesty. Not only must Israel defend her borders and try to maintain internal stability, she must now wonder where her friends stand.

Our country's improving relations with Egypt offer the promise for stability and peace in the Middle East. It is my fervent hope that yesterday's vote in the United Nations is not an indication that improved relations with the Arab world will take place at the expense of our long-standing, moral commitment to and support of Israel. Am Yisrael Chai—the people of Israel live.

PRIVACY INTERESTS ARE TOO OFTEN NEGLECTED

(Mr. KOCH asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. KOCH. Mr. Speaker, in an editorial aired April 21, WNBC–TV raised the privacy implications of a law in New York that requires a doctor to file with the State a copy of a prescription for some pain killers, amphetamines, and other similar drugs. WNBC–TV warns that such recordkeeping could lead to an invasion of privacy and urges that steps be taken to restrict access to these files. According to WNBC, there presently are no restrictions on access to these computer files.

This is an example of a legitimate Government information collecting activity—but one that is being carried out without sufficient privacy safeguards. We need to limit access to these files, but beyond this we must also develop a comprehensive measure regulating all public and private data collecting and information storage activities. We never will catch up with the many assaults on our privacy unless a national policy is formulated, first to establish what is acceptable data collecting activity and then to regulate its conduct.

I have joined with our colleague from California (Mr. GOLDWATER) in a bipartisan effort to do this. Our bill, the Right to Privacy Act, would establish a Federal Privacy Board to provide safeguards against information collecting, use, and transfer abuses. Our bill would regulate both the private and public sector. Our bill would not inhibit legitimate information collection, but it would provide a means by which consideration could be given to the potential dangers to our privacy of all information collecting activities. Today, privacy is often jeopardized and even usurped because of neglect. Too often privacy interests simply are never considered and protected in our rush to solve social problems. The "triplicate prescription law" is an example of this malady.

One thing that Watergate has done is to spark the public's awareness of the assault on our privacy that has been underway for some time. It is imperative that a Federal Privacy Board be established soon before we have no more privacy to protect.

The WNBC–TV editorial of April 21, 1974 follows:

THIS LAW IS AN ABUSE

Every person who has a prescription filled in New York State for certain drugs is being watched by Big Brother. Their doctor-patient relationship is being violated.

New York State has what is called the "triplicate prescription law." When a doctor writes a prescription for some pain killers, amphetamines and certain drugs used for cancer patients, hyperkinetic children, arthritics and others in need of such medicine, he makes three copies. He keeps one copy, the pharmacist keeps a copy for his records and the third copy goes to the State Computer Bureau and this could lead to an invasion of privacy and a violation of civil liberties. The possibility of this information being misused is enormous. The Nassau County Medical Society, which is leading the fight to amend the law, points out that there are no restrictions as to which person, government agency or company may have access to these computer files . . . now or in future years . . . or how this information may be used.

We join the Nassau County and State Medical Societies in calling on the State Legislature for immediate changes in the triplicate prescription law to protect the doctor-patient relationship.

President Nixon has established a panel on privacy to "forge a person shield for every American against invasion of privacy from any source."

This would be a good place to start.

THE REGULATORY CHALLENGE POSED BY VINYL CHLORIDE

(Mr. KOCH asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. KOCH. Mr. Speaker, in the last several months questions have been raised concerning the link between vinyl chloride and a rare form of liver cancer. That chemical is used in many products ranging from hair sprays to pesticide sprays.

Earlier this month the Food and Drug Administration and the Environmental Protection Agency announced they were asking manufacturers to "voluntarily" halt the use of the chemical vinyl chloride in their products. I immediately wrote to the heads of these agencies to question why they would, in cases where they believe the public safety to be endangered, rely on voluntary action and not insist on mandatory removal of the dangerous products.

I received a response from the Food and Drug Administration on April 18. It contained the statement that the Federal Food, Drug and Cosmetic Act "contains no provisions which authorize this Agency to require or insist that a manufacturer or distributor recall any products." If that is so, obviously the Federal Food, Drug and Cosmetic Act is deficient.

While I have received no response from Russell Train, Director of the Environmental Protection Agency, I was pleased to see reported in the press today that the Environmental Protection Agency has issued what is termed by the UPI as "a rare emergency order" to halt the sale of thousands of cans of pesticide sprays containing vinyl chloride. That order takes effect immediately and covers 28 aerosol products intended for use in the home, hospital, and other places where food is handled, or in any enclosed area.

Surely the FDA must move as forthrightly on this subject as has the EPA, since the EPA did not have jurisdiction over such items as hair sprays. Surely as much, if not more, danger exists to people in the use of items such as hair sprays containing vinyl chloride as in the use of pesticides.

I am having legislative counsel prepare legislation to amend the Federal Food, Drug, and Cosmetic Act so as to give that agency the power it claims it needs to deal with situations of this kind. It is unfortunate that the FDA has not moved forthrightly in this matter to alert the public and Congress to the dangers inherent in such inadequate regulatory powers. The correspondence follows:

DEPARTMENT OF HEALTH,
EDUCATION, AND WELFARE,
Rockville, Md., April 18, 1974.

HON. EDWARD I. KOCH,
House of Representatives,
Washington, D.C.

DEAR MR. KOCH: Commissioner Schmidt has asked me to thank you for your letter of April 4, 1974 concerning the Food and Drug Administration's request for a "Voluntary" recall of certain aerosol hair sprays manufactured by Clairol Inc. due to the presence of vinyl chloride monomer (VCM).

We are sending letters to all other manufacturers and major distributors of aerosol cosmetics requesting that they also recall any of their cosmetic products which contain VCM as a propellant.

Reviews by our scientists of the available toxicological and epidemiological data indicated that VCM may be dangerous when exposure is by the inhalation route. Based on these findings we concluded that those aerosol cosmetics which contained VCM as a propellant represented a potential health hazard and therefore should be removed from consumer channels as soon as possible.

The only statutory instrument available to the Food and Drug Administration under the Federal Food, Drug, and Cosmetic Act to get such products out of commerce is seizure.

Although seizure is a valuable tool, which does not require any voluntary action on the part of the manufacturer, it does have major limitations. The most significant of these limitations is the time required to implement a seizure action. This time-delay is compounded severalfold in situations, such as this, where numerous lots of products have been distributed nationwide. A separate seizure action against each lot of goods in each different locale would be necessary. Much of the defective products would be further dispersed before they could be located by the Food and Drug Administration and seizure implemented.

Recall is usually a much more efficient and practical means for reversing the chain of product distribution. The recalling firm usually has readily available all data with respect to quantity of products manufactured and/or distributed, names and addresses of customers and other pertinent identifying information. A notification to customers to return any defective merchandise can therefore be accomplished in a minimum of time. Recall is especially preferable to seizure in situations where potentially hazardous products are involved and speed in retrieval is all important.

We must point out however that the Federal Food, Drug, and Cosmetic Act contains no provisions which authorize this Agency to require or insist that a manufacturer or distributor recall any products.

Due to the nature of the hazard involved with these aerosol cosmetics, we felt that recall was the most appropriate means of assuring a rapid removal of these products from the market.

Clairol Inc. initiated this recall only after we advised them to do so. We were prepared to issue public warnings and institute seizure actions if the firm had not responded favorably to our request for recall.

We hope these comments are helpful to you in assessing the merits of our decision in this instance to request that these aerosol cosmetics be recalled.

Please let us know if we can be of any further assistance.

Sincerely yours,

ROBERT C. WETHERELL,
Acting Director,
Office of Legislative Services.

COMMUNIST PARTY, U.S.A.

(Mr. ICHORD asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. ICHORD. Mr. Speaker, I noted with interest an article which appeared in a recent issue of the Saturday Review entitled "What's Happened to the Communist Party, U.S.A." The article, written by Roger M. Williams, is presented in an interesting manner and an effort appears to have been made to be as objective as possible. However, the article contains some very misleading statements that tend to give the Communist Party an undeserved aura of respectability and I feel it is important to set the record straight.

For example, the article cites the Communist Party as having made "notable contributions to American society by advancing programs and causes that eventually became national policy." In this connection, the article credits the Communist Party as "working for racial equality at a time when the Democrats and Republicans were perpetuating racism."

This assertion, of course, is not true. The Communist Party has never had any legitimate interest in the plight of the blacks. As a matter of fact the Communist Party relishes the tension and troubles associated with racial incidents not only because they embarrass the United States but also because they create polarization of conflicting forces on which communism is nourished. In its efforts to capitalize on racial incidents, the Communist Party has long regarded blacks, as well as other minority groups, as a primary target and has subjected them to intensive and extensive Communist agitation and propaganda.

In practice, however, the Communist Party has actually betrayed efforts by black citizens toward racial equality when those efforts clashed with the Communist Party's basic loyalty to defend and support the Soviet Union. For example, during the nonaggresison pact between the Soviet Union and Nazi Germany, the Communist Party called the war between Nazi Germany and Great Britain an imperialist war of no interest or concern to the United States. The Communist Party showed no concern at all over the fact that the racism of the Nazis was alike in essence to the racism of the extremists who would do injustice to the American Negro.

The Saturday Review article also credits the Communist Party with putting across the concept of peaceful coexistence with the Soviet Union, and comments that "this claim is not only valid but the same as a majority of Americans have gradually become to realize."

The House Committee on Internal Security, which I chair, held hearings in November, 1973, on the "Theory and Practice of Communism" which showed why peaceful coexistence, the general line of the current U.S.S.R. foreign policy, occupies an important role in Communist worldwide strategy.

Committee witness Charles Fitzpatrick, a long-time FBI informant inside the Communist Party's New York City organization, noted that many Americans are hailing the current thaw in East-West relations as evidence that the Communists have given up their goal of worldwide Communist rule. Nothing could be further from the truth. Mr. Fitzpatrick pointed out that the Communists have never entertained any ideas of a permanent reconciliation with non-Communists. He further noted that belief in the inevitable conflict between "capitalism and socialism" has always been a basic Communist tenet.

The Communists, by capitalizing on the deep desire of the American people for paece, hope to reap the many benefits of the present East-West détente, particularly by the gaining of a cutback in U.S. armament production which will help to render the United States incapable of offering effective resistance.

Mr. Speaker, the tendency to minimize the Communist threat as was done in the Saturday Review article can have tragic consequences since the Communist Party, the largest subversive organization in our Nation today, is part and parcel of the international Communist conspiracy whose ultimate objective is world domination by communism.

OUR GREAT INJUSTICE TO RHODESIA

(Mr. ICHORD asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. ICHORD. Mr. Speaker, two fine Missourians and good friends of mine, Ed and Alma Sowers of Rolla, Mo., have been touring the world on the National Newspaper Association study mission and this year are taking a close, first-hand look at Africa and Latin America.

Ed Sowers is president and publisher of the Rolla Daily News, and the Sowers have been helping to educate and enlighten readers with a series of reports from their travels. I found the sixth in the series, published February 22, 1974, to be one of the most informative.

It is entitled "Our Great Injustice to Rhodesia" and refutes many of the allegations and myths we so often hear with respect to that bravely independent African nation.

Because of my high regard for the integrity of reportage by Mr. and Mrs. Sowers and because of my deep concern over American policy in supporting United Nations sanctions against Rhodesia, I insert this article at this point in the RECORD:

OUR GREAT INJUSTICE TO RHODESIA

SALISBURY, RHODESIA.—For shame, America!

For 200 years, now, you valiant sons and daughters have stood for—and often died for—justice and freedom for all the peoples of this earth.

Yet, at this time, while we continue to stand for justice in Vietnam, in the Near East—in many parts of the world—we have followed blindly and given force to a rank injustice to the great African nation of Rhodesia.

Showing weakness rather than strength, the United States joined the pack, led by the Communist-inspired "emerging nations" in the United Nations, and more heart-breaking still, by Rhodesia's mother country, Great Britain, and helped invoke "sanctions" restricting trade with Rhodesia, charged with "apartheid" or unfair policies dealing with its majority black population.

Seeking the truth of this situation, several of us on the National Newspaper Association Study Mission, concentrated on Rhodesia and the entire Mission was granted an hour-long interview with Mr. Ian Smith, the great, if beleaguered, Prime Minister of Rhodesia.

After the interview, and fact-finding forays into Rhodesia, this writer and several others are more firmly convinced than ever that Rhodesia is doing a great job of bringing civilization, culture, better living, education and health standards to its vast majority of black people, only a relatively few years removed from a primitive existence in the jungle.

Even as we talked to the Prime Minister, Rhodesia's expanded army was being buttressed to contain Communist-inspired (he said) terrorist attacks launched from borders to the northeast and Mozambique to the east. Sporadic shots across the Zambezi River to the northwest have killed several Rhodesians. (The river boundary area seemed peaceful enough to us as we enjoyed a sundown launch cruise on it.)

Later, we learned in Dar es Salaam, capital of Tanzania, that it is the object of the black-controlled governments of Tanzania (and other similar nations) to drive the white minorities (the colonizers who built the nations from the jungles) out of power and, in fact, out of the country. (A black government minister in Dar es Salaam very frankly told us just that!)

"The Communist-inspired terrorists are, unfortunately, killing black people, too," Mr. Smith said.

I asked the Prime Minister if the alleged International Communist Conspiracy is responsible for the sanctions and Rhodesia's isolation from the world? He answered:

"Not entirely. It is true that Red China and Soviet-trained terrorists do stir up the trouble, while those nations and their satellites sit back and rub their hands with satisfaction. But the real force behind the sanctions is the British liberal Labor party."

An intense man, thin and rather tired-looking, Mr. Smith seemed downright sad (a sadness which was conveyed to us) when he referred to the mother country. One of his statements to us was delivered in confidence, but it can be said that Rhodesia, a nation most alike the freedom-loving, progressive states on this earth, feels it is almost without friends, except, hopefully, the United States!

"I think you have many friends in the United States, Mr. Prime Minister, even if our government doesn't always show it," I said, when it came my turn to shake Mr. Smith's hand as he left the conference room.

"Thank you, thank you, we do need your friendship."

The completeness of Rhodesia's isolation was emphasized when we realized that we do not maintain diplomatic relations with them, that Rhodesians—except those holding British passports—cannot get a visa to travel in the United States! Outlawed, too, by the United Nations, Rhodesia is traveling alone—well, almost alone. The Union of South Africa, meeting the same problems in race relations, is still closely allied with Rhodesia, as is Portugal.

(To show the domino effect of the lopsided world relationship with Rhodesia, a great hue and cry went up in Africa because the Portuguese Azores allowed the U.S. to use their bases recently to convoy military supplies to Israel. Obviously, the alignment of African nations includes North African Egypt, Libya and others!)

In its 200-year-stand for justice and freedom, the U.S. needs friends, too. Friends like Rhodesia, South Africa, Portugal, others! And the U.S. may be the loser in its unjustified, undocumented position. The adversity of sanctions seems to be making Rhodesia stronger, certainly more self-sufficient. The Prime Minister told us that, since sanctions were imposed, Rhodesia's gross national product (GNP) has doubled! Rhodesia is now producing almost all needed foodstuffs, is actually exporting some ag products, tobacco, etc.

The black man is "emerging" into his rightful place in the plentiful Rhodesian sun. Blacks and whites and coloured go to certain schools and colleges together. There are more and more hospitals for those who have been convinced they should accept free hospital care instead of the manipulations of witch doctors. The first newspaper I picked up in Cape Town carried the front-page headline: "Petty Apartheid Ended; 'Whites Only' and 'Blacks Only' Signs Come Down."

And, would you believe? (you U.S. Senators and Congressmen who may not know as much about S. Africa as we NNA reporters know), we visited the Soweto township Bantu Homelands where we saw 1,000,000 blacks living happily—some of them self-made millionaires—all of them in comfortable brick cottages, with running water, sewer, garden plots, and neatly uniformed children in nearby schools.

Several members of our Study Mission have signed a joint resolution urging the House to defeat the recent Senate action which, if passed by the House and signed by the President, would halt any purchases of chrome from Rhodesia, thus doing away with U.S. Senator Byrd's move to treat Rhodesia with the justice and dignity earned by this great free nation. Without benefit of Sen. Byrd's action, the U.S. bought low grade chrome from Russia—chrome which Russia had bought from Rhodesia—at a higher price than quality chrome from Rhodesia, the Prime Minister told us. If this be the price of detente, then . . .?!!

Even if passed by the House, the President should find it difficult to toss any further shafts at Rhodesia as inconsistent with his policy of detente. Instead, he should order Secretary of State Kissinger to include Rhodesia in his diplomatic travels. In fact, that has already been arranged, unofficially. I asked Prime Minister Smith if he would welcome a visit from Secretary Kissinger.

"I certainly would," he answered. "We would welcome all friends who come in peace to our country!"

For shame, America!

HEALTH SERVICES

(Mr. ROY asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. ROY. Mr. Speaker, over the past decade, the Congress has established a number of programs to increase the availability and accessibility of health services to the American people. The goal has been to make the benefits of modern medicine available to all Americans so that they might live healthier, longer lives.

The most important of these programs are the financing programs—the medicare and medicaid programs. The establishment of a national health insurance program, now supported in some form by virtually all elements of our society, seems assured in the near future. But no financing program can insure the availability of health services to all people; medicare and medicaid have not been able to, and even national health insurance will not be able to insure that health services are available to all people. Why? Because the availability and accessibility of health services depend on the presence of health professionals, especially physicians, especially primary care physicians, to provide such services.

As no financing program does—or can—insure the availability and accessibility of health services, no other program operating today, governmental or private, insures the presence of necessary health manpower in communities throughout the Nation. The National Health Service Corps, with just over 600 positions, is too small. The regional medical and the comprehensive health planning programs have different goals and no real capacity either to attract or to place health manpower where it is needed. The Federal health manpower training support programs, which effective in increasing the aggregate number of health professionals in the Nation, have had little or no success in this area. And none of the various State and local programs have been notably effective in insuring the presence of health professionals in communities where they are needed.

The United States today faces serious health manpower problems. The three most important are: First, the maldistribution of health professionals by geographic areas; second, the maldistribution of physicians by specialty; and third, the increasing reliance on graduates of foreign medical schools to provide health services in the United States.

MALDISTRIBUTION BY GEOGRAPHIC AREA

Today, the most serious limitation on the availability of health services is the inability of many citizens to pay for these services. But with the establishment of a national health insurance program guaranteeing to all Americans the ability to pay for health services, the most serious limitation on the availability and accessibility of health services will be the absence of health professionals, especially physicians, in communities across the Nation.

It has been recognized for many years that many communities and neighborhoods lack health manpower. There are two important considerations in this regard: First, the extent of the existing maldistribution of health manpower by geographic area; and second, the trend, evident over the past decade, of increased maldistribution of health manpower by geographic area.

If one analyzes the extent of the existing maldistribution of physicians—the most intensively studied of the health professions—by geographic area, two aspects of the problem become apparent: First, the maldistribution of physicians among various regions and States within the Nation; and second, the maldistribution of physicians among inner city and rural areas and suburban areas.

There is today a general maldistribution of physicians among various regions and States within the United States. The New England region, with a 1.90:1,000 physician/population ratio, and the Pacific region, with a 1.83:1,000 ratio, have much larger supplies of physicians than do the north-central region, with a 1.35:1,000 ratio and the east-south-central region, with 1.05:1,000 ratio. On a per capita basis, the New England region has 80 percent more physicians than does the east-south-central region.

Among States the variation is even more pronounced. New York, with a 2.36:1,000 ratio, has 265 percent more physicians, on a per capita basis, than does Mississippi with a 0.89:1.000 ratio.

As there is a maldistribution of physicians among various regions and States in the Nation, there is also a maldistribution of physicians among inner city and

rural areas and suburban areas within the various regions and States.

Generally, inner city areas have many fewer physicians, on a per capita basis, than do suburban areas. For example, New York City poverty areas have a 0.65:1,000 ratio, while affluent areas of the city have a 2.50:1,000 ratio. This is a variation of almost 400 percent. In Chicago, the variation is from a 0.26:1,000 ratio to a 2.10:1,000 ratio, a variation of more than 800 percent.

Similarly, rural areas have many fewer physicians, on a per capita basis, than do urban areas. Nationwide the ratios are 1.73:1,000 for metropolitan areas and 0.80:1,000 for nonmetropolitan areas. In my home State, Kansas, one 7-county rural area has a 0.54:1,000 ratio, and another 13-county rural area has a 0.51:1,000 ratio. In contrast, the urban Wichita area has a 1.39:1,000 ratio, and in suburban Kansas City, Johnson County has a 1.27:1,000 ratio.

As there are clear inequities in the supply of physicians to various population groups within the country, the trend in the distribution of physicians is also clear.

In one 1959 survey, the physician/population ratio in New York was 1.87:1,000, while in Mississippi it was 0.72:1,000, a variation of 259 percent. In the same survey in 1969, the ratios were 2.21:1,000 and 0.77:1,000, and the variation had grown to 287 percent. Projections to 1990 indicate that in that year New York will have more than 400 percent more physicians than Mississippi.

The number of physicians in inner cities in the United States has actually decreased over the past two decades. One of the best studies, done in Chicago, indicates that the private office based physician/population ratio in the inner city there decreased from a 1.11:1,000 ratio in 1950 to 0.75:1,000 ratio in 1970. The private office based physician/population ratio in the suburbs simultaneously increased from 0.95:1,000 to 1.23:1,000.

The number of physicians in rural areas has also decreased over the past decade. In Kansas, between 1963 and 1970, 50 of the 105 counties lost physicians. All of the 50 counties are rural. This trend can be projected into the future, for in 1970, 20 counties—all rural—had more than 50 percent of their physicians over 60 years of age, and another 20—all rural—had more than 30 percent of their physicians over 60 years of age.

The above discusses, as an example, physician distribution. Available studies of the distribution of other health professionals, while not as extensive as those on physician distribution, indicate a similar, if less extreme, situation with respect to dentists, optometrists, podiatrists, and veterinarins.

Mr. Speaker, there is no question that there are today, on a per capita basis, fewer health professionals in the middle western and southern regions of our Nation than in the New England and Western regions. There are also many fewer health professionals, on a per capita basis, in our inner city and rural areas than in our suburban areas. And the maldistribution, both with respect to the regions of the country and to the inner city and rural areas has increased over the past decade.

MALDISTRIBUTION BY SPECIALTY

Just as physicians are today maldistributed by geographic area, they are maldistributed by specialty.

In the United States today, approximately 47 percent of the physicians are in the primary care specialties of general or family practice, internal medicine, pediatrics, or obstetrics and gynecology; 24 percent are in the surgical specialties. In contrast, in two planned or managed health service systems, the British National Health Service and the U.S. prepaid group practices, 74 and 69 percent, respectively, of the physicians are in primary care, while 8 and 20 percent, respectively, are in the surgical specialties.

A study by Schonfeld and others, at Yale University, estimates that a primary physician/population ratio of 1.33:1,000 is necessary to provide adequate primary care to the people. In the United States today, the primary physician/population ratio is 0.60:1,000. At the same time, a study by Bunker indicates that the surgeon/population ratio in the United States is more than twice the surgeon/population ratio in either the British National Health Service or the U.S. prepaid group practices. Bunker's study further indicates that the U.S. population undergoes twice as much surgery as the British population or the members of the U.S. prepaid group practices.

A study of the trends in the specialties of U.S. physicians indicates that in the future even a smaller percentage of physicians will be in primary care. For example, while 47 percent of all U.S. physicians are now in primary care, only 37 percent of physicians now in the residency phase of postgraduate training are in primary care specialties. As Weber reports:

> If physicians in each speciality were equally distributed in each age bracket and we assumed a 30-year practice life on the average, a ratio of 3.5 new trainees in the field for each 100 physicians (excluding interns and residents) would provide for a static number in that specialty. In 1970, general surgery had 12.2 new trainees for each 100 physicians in that field. That was the largest ratio for any major specialty.

One reasonable projection indicates that the United States will have 20,000 fewer family physicians and general practitioners in 1990 than in 1970. According to this study, the percentage of physicians in primary care is projected to decrease from 44.2 percent in 1970 to 39.6 percent in 1990, while the percentage of surgeons is projected to increase.

Mr. Speaker, it is clear that in the United States today we have proportionately too few primary care physicians and too many surgeons. This maldistribution is projected to worsen in the next decade.

FOREIGN MEDICAL GRADUATES

There is an increasing reliance on graduates of foreign medical schools to provide health services in the United States. At the present time, there are more than 63,000 graduates of foreign medical schools in the United States; they constitute over 20 percent of the active physicians in this country. In 1970, 10,540 foreign-trained physicians were admitted to practice in the United States. On a State basis, 38 percent of the physicians in New York are graduates of foreign medical schools. Similarly, 31 percent of New Jersey physicians, 31 percent of Delaware physicians, 29 percent of Illinois physicians, and 26 percent of Ohio physicians were trained abroad.

Of the 63,000 medical graduates in the United States, 17,000 are interns and residents. They constitute 33 percent of all intern and resident postgraduate physician trainees in the United States. On a State basis, 78 percent of the resident level trainees in New York State are foreign medical graduates. Similarly, 66 percent of the resident-level trainees in Delaware, 60 percent of those in Rhode Island, 49 percent of those in Illinois, and 47 percent of those in Ohio are foreign medical graduates. On a specialty basis, 54 percent of the pathology resident-level trainees in the United States are foreign medical graduates, while 52 percent of those in anesthesiology, 42 percent of those in pediatrics, 40 percent of those in obstetrics and gynecology, and 38 percent of those in general surgery are graduates of foreign medical programs. On a hospital basis, 311 hospitals in the United States—31 percent of all hospitals with postgraduate physician training programs—report that 76 percent or more of their resident level trainees are foreign medical graduates.

In terms of country of origin, 17,575 U.S.-licensed physicians are from Cuba, 7,352 are from the Philippines, 3,957 are from India, and 3,208 are from Italy. The magnitude of the immigration of physicians from certain countries is summarized in the following statement from Stevens 1972 study:

> Korea, where large sections of the country have no medical services available, has about 13,000 doctors to cover its entire population; today there are already 2,000 Korean medical graduates in the United States and more pour in each year. Thailand with 4,000 doctors, has produced 1,000 medical graduates now in this country. Outside Bangkok, physician services are woefully inadequate. There are more Thai graduates in New York than are serving all of Thailand's rural population of 28 million people. Iran produces 600 medical graduates a year; on an average there are at least 100 of the graduating classes from 1960 to 1969 now in the United States. Similar statements can be made for many, if not most, Third World countries.

There are a number of problems caused by the large number of foreign medical graduates in this country. The most important, of course, is that the practice of medicine requires the subtle interpretation of the psychological status of the patient for the competent performance of professional duties. The quality of care provided by large numbers of individuals who do not speak the English language well, let alone understand the subtle nuances of the American culture, must be questioned.

Beyond that, there is the problem of simple scientific/technical competence. Test scores indicate that while 80 percent of U.S. medical graduates would be ex-

pected to score higher than 80 percent on the ECFMG examination, only 12 percent of foreign medical graduates do so. Finally, there is the ethical question of the most affluent nation in the world importing, and utilizing to serve its own people, enormous numbers of physicians trained by the less affluent and developed nations of the world—nations that do not have adequate numbers of physicians serving their own people.

These, then, are the most dramatic problems. But there are other problems with which Federal health manpower legislation must deal. These include: The absolute shortage of public health, health administration, nurse clinician, and pharmacy clinician personnel; the need to improve the training provided by undergraduate schools of nursing, pharmacy, and allied health; the need to develop and support area health education systems to coordinate the provision of health education within the various areas; and the need to insure that all health professions, including those at the undergraduate level, have available to them adequate funds to insure their ability to complete their training in the health professions.

NATIONAL HEALTH SERVICES MANPOWER ACT

Mr. Speaker, the bill which I have introduced today, H.R. 1435F, the National Health Services Manpower Act of 1974, is designed to meet the problems which I have described above. It is intended as a complete program, a complete replacement for the existing titles VII and VIII of the Public Health Service Act.

NATIONAL HEALTH SERVICE CORPS SCHOLARSHIPS

Part A of the bill deals with the maldistribution of physicians and other health professionals by geographic area by establishing a program to provide, as an entitlement, a scholarship, up to $12,500, in any year for all graduate level health professions students. In return for this substantial support during training years, students would agree to serve, usually for 2 years, in the National Health Service Corps.

This program, if the option for support were chosen by 90 percent of eligible students, would make available every year, to provide service to underserved populations, more than 22,000 physicians and 8,000 dentists. It would also make available large numbers of optometrists, podiatrists, veterinarians, and other health professionals.

In addition to making available an adequate supply of health manpower for currently underserved populations, the program would have two benefits with respect to the education of health professionals. First, since the program would make funds available for students to pay sizable tuitions, up to $7,500 in any year, it would guarantee an adequate supply of funds to health professions schools. An adequate and guaranteed source of Federal funds has been a goal of these schools for some period of time. Second, by making the scholarship funds available as an entitlement, it would guarantee that all graduate level health professions students, no matter what their financial status, would be assured of adequate funds to support them while training in the health professions.

There are a number of details in the program which are necessary to make it a success. A detailed description of these is included in the section-by-section analysis of the bill which is included in the record. Three features are most important:

First. The bill provides for the Secretary to establish an "approved tuition" for each program at each health profession school each year. It then provides for each student a scholarship equal to the amount of such approved tuition, plus $5,000 for living expenses. The bill provides that the amount of approved tuition shall be the lesser of either one-half of the net educational expenditures per student in such degree program at an institution or $7,500. This provision insures that adequate funds, directly from the student and indirectly from the Federal Government, will be made available to each educational institution in each year. On the other hand, the $7,500 limitation insures that schools will not increase their costs to an unreasonable level simply because Federal support is available.

Second. The bill provides that any student who fails to complete a professional degree, because of either academic difficulty or voluntary termination of training, shall not be required to repay any of the funds provided to such student to support such training. This provision is included since the goal of the program is to provide services to underserved populations and individuals who do not complete their training would obviously be unqualified to provide such services. Further, to require students who failed or quit health professions schools to repay these rather sizable sums of money provided to them as scholarships would be inequitable. It would also discourage students from joining the program.

Third. The bill provides that any student who does finish a training program and who fails to begin service according to his or her obligation, shall pay to the Federal Government twice the amount of the sum paid to the individual as a scholarship plus the interest on such funds at the maximum legal prevailing rate since the time the scholarship funds were provided to such student. Again, the goal of the program is to provide services to underserved populations; therefore, new professionals who received support but refuse to provide such services should pay a heavy penalty.

The program which I have proposed today would make available to provide services to underserved populations thousands of physicians, dentists, and other health professionals.

NATIONAL HEALTH SERVICE CORPS

Part B of the bill is a revision of the National Health Service Corps program. This part of the bill is quite similar to H.R. 13469 previously introduced by myself and other members of the Subcommittee on Public Health and Environment, and provides for a strengthening of the administration of the National Health Service Corps program. Two provisions are particularly important:

First. The bill provides for planning and development grants, up to $25,000, for communities which have approved applications for National Health Service Corps projects. These grants will insure that physicians and other health manpower assigned to the communities by the Corps will be used efficiently and effectively.

Second. The bill provides for the National Health Service Corps projects to reimburse the Secretary from funds derived from fees from patients both for the amount of the salaries of assigned Corps personnel and for the amount of the funds provided to such assigned personnel as scholarships. The Secretary shall place the funds received as reimbursement for scholarships in a trust fund and use such funds for the provision of scholarships to students in training.

This provision insures that once the program is in operation the direct costs to the Federal Government each year will be minimal. This provision will be especially important after the passage of national health insurance when all residents of the United States will be able to pay fully for health services. In such situation, in fact, this provision will decrease the direct costs to the Federal Government of the part A scholarship program from a calculated $600 to $700 million in the first year to less than $200 million per year when it is finally fully operative, after the ninth year.

POSTGRADUATE PHYSICIAN TRAINING

Part C of the bill deals with the maldistribution of physicians by specialty by establishing a program to certify a limited number and an appropriate balance of postgraduate physician training positions.

The program would be administered by a national council and 10 regional councils. These councils would be composed of 19 members, 11 of which would be physicians, 5 of which would be nonphysician health personnel, and 3 of which would be representatives of the general public. The national council would annually set the total number of internship and residency positions to be certified in the following year. The total number in any year would not exceed 110 percent of the total number of medical and osteopathic degrees granted in the United States in that year. The national council would divide the limited number of positions to be certified among the various recognized physician specialties and subspecialties. The national council would distribute the certified positions to the various regional councils.

The regional councils would assign the positions distributed to them by the national council among the training institutions and associations of training institutions operating within the region. The regional council would not certify any position in excess of the number assigned by the national council. In certifying positions in institutions, the regional council would insure that no certified positions went to any institution which maintained any uncertified position.

The bill prohibits health insurers from reimbursing institutions for unapproved training positions.

Tnere are a number of details in the program which are necessary to make it a success. A detailed description of these is included in the section-by-section analysis. Four features are most important:

First. The bill provides for the number of postgraduate trainee positions to be limited to 110 percent of the number of graduates of U.S. medical and osteopathic schools in any year. This limitation insures that even if all positions in certain specialties are filled and positions in others are vacant, the balance among physicians trained in the various areas will be generally appropriate. This limitation also has the effect of restricting the number of positions that will be available to graduates of foreign medical schools. Even if every position were filled, the total number of positions available for graduates of foreign schools could not be more than 10 percent of the number of graduates of U.S. schools. In 1973, there would have been 1,039 positions.

Second. The bill provides for the Secretary to pay any institution which obtains a decreased number of postgraduate physician trainees because of the operation of the program and which has a plan to replace such individuals with nonphysician manpower, at the rate of $10,000 for each such position decrease in the first year after such decrease and $5,000 for each such position decrease in the second year after such decrease. It is important to note that positions currently filled with graduates of foreign medical schools would be included in the calculation of such payments.

Third. The bill provides that the Secretary shall support, with grants of up to $100,000, the development of training positions in specialties, and geographic areas, in which the national council and a regional council determine that such additional positions are needed. It is anticipated that most of these positions would be in primary care. A large number of them would be in currently underserved regions of the Nation.

Fourth. The bill recognizes that while there is general agreement that physicians are now maldistributed among the various specialties, there is not agreement what the precise distribution should be. The bill, therefore, provides for an extensive study of the desired balance of physicians in the various specialties and subspecialties. This study would begin immediately on the enactment of the legislation, and would be finished before the national council began to certify positions in 1976 for the 1977 academic year. The bill provides for the Secretary to contract with a not-for-profit group with experience in the analysis of health service problems to perform the study.

The program which I have proposed today would then insure that the people of the United States will be served by a proper balance of physicians in the various specialties and subspecialties.

SPECIAL PROJECT GRANTS

The bill additionally deals, in part D, with a number of other problems faced by the Nation with respect to health manpower.

The bill provides that the Secretary shall make grants to schools of podiatry to meet the costs of projects to assist in developing a closer working relationship between these schools and other health professions training programs and academic institutions.

The bill also provides for grants to schools of nursing, pharmacy, public health, and health administration which agree to increase the size of, or institute new, graduate level programs for: First, clinical nursing personnel; second, clinical pharmacy personnel; and third, community and public health personnel and health administrators.

The bill provides for grants to undergraduate schools of nursing, pharmacy, and allied health to meet the costs of projects to: First, increase the supply or improve the distribution of health personnel; second, improve the curriculum of such school; third, establish a new program modification of existing programs at such schools; fourth, increase educational opportunity for disadvantaged students; and fifth, otherwise strengthen, improve, or expand programs to train such personnel.

AREA HEALTH EDUCATION SYSTEMS

The bill, in part E, deals with the current lack of coordination among various health education programs throughout the country by providing support, up to $500,000 in any year, for area health education systems.

The bill defines an area health education system as an entity which: First, evaluates the health education needs of the residents of an area and the effectiveness of the various health education programs in the area in meeting those needs; second, provides directly and coordinates the provision by other organizations and institutions of health education to the residents of the area; third, has contracts or other formal working arrangements with the various institutions and organizations in the area involved with health education; and fourth, has as members of the board of directors individuals which are associated with all the various institutions and organizations involved with health education within the area.

The bill also provides for the establishment of health education areas. It particularly provides that such areas shall follow the boundaries of one or more of the areas served by agencies established under section 314(b), the areawide health planning agencies.

LOAN GUARANTEES AND INTEREST SUBSIDIES

The bill, in part F, deals with the problem of access to undergraduate training programs in health education by establishing a program of loan guarantees and interest subsidies for students in these programs. The program established provides for the guarantee of a loan of up to $5,000 for any student in each academic year. The interest on such loan would be reduced by up to 3 percent per year by payments by the Secretary. The student upon graduation would have up to 5 years to repay the total amount of the loans made under the program.

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COSTS OF H.R. 14357

Mr. Speaker, the costs of the programs to be established by the National Health Services Manpower Act of 1974, H.R. 14357, are, when compared with present expenditures and with the benefits of the program, reasonable.

In fiscal year 1974, $1.044 billion was authorized to support the various programs which would be replaced by the programs described in H.R. 14357. In fiscal year 1974, the Federal Government

actually provided approximately $723 million for these programs. In fiscal year 1973, more than $757 million were provided. The costs of H.R. 14357 would be reasonably expected to be on the order of $860 million in fiscal year 1975.

H.R. 14357 provides "such sums as may be necessary" to be authorized for each program included in the bill. In this case the authorization levels are not explicit. It is possible, however, by calculation, and by considering the previous appropriations for a variety of programs which will be extended, to project the probable costs of H.R. 14357.

The major cost under H.R. 14357 is for the scholarship program, part A. The legislation provides that each graduate level student in the various health professions shall be entitled to a scholarship for each year equal to "approved tuition" plus $5,000 for living expenses. The bill provides that the "approved tuition" shall be lesser of: first, one-half of the net educational expenditures at the institution; or second, $7,500.

Using the number of students in the various programs in the 1972–73 academic year, and using the "net educational expenditures" for the various types of schools determined by the Institute of Medicine study, the total cost, if 90 percent of the eligible students had chosen to participate, of the scholarship program for fiscal year 1973 would have been $648 million. The breakdown of this figure is included in table I. In fiscal year 1975, assuming a 10 percent increase in the total cost of the program over the 2-year period due to an increased number of eligible students and inflation of the education expenditure, the total cost of the scholarship program would be estimated to be $713 million.

One point needs to be emphasized with respect to the cost of the scholarship program. It is, that at such time as large numbers of professionals are actually providing services as members of the National Health Service Corps, the appropriations required to support the scholarship program, part A, will be dramatically decreased. This is because, under part B of the bill, sponsors of NHSC projects are required to reimburse the Secretary, from fees charged to patients, for the costs of the scholarships provided to health professionals assigned to such projects. It is estimated that, due to this provision, the appropriation necessary to support the scholarship program, would decrease to less than $200 million in the ninth year of the program, the first year in which the program would be fully operational.

In addition to the cost of the scholarship program, part A, the costs must be estimated for other programs included in the legislation, parts B through F. While these costs cannot be calculated, as may those for part A, they may be projected based on appropriations for similar programs over the past several years. If such projections are utilized, a total fiscal year 1975 appropriation of $125 to $150 million for the part B through F programs would not be unreasonable. Major portions of these funds would go to support the development of area health education systems and to support the expansion of graduate level programs for nurse clinicians, pharmacy clinicians, public health personnel and health administrators. Significant amounts might also be expected to be appropriated for programs to improve the undergraduate training programs in nursing, pharmacy and the allied health professions.

The costs of the program to assist hospitals to convert from postgraduate physician trainee manpower to other types of manpower, included in part C, would not require an expenditure until the first year of operation of the post-graduate physician trainee position allocation program, fiscal year 1978.

Mr. Speaker, while the cost of H.R. 14357 in fiscal year 1975 would undoubtedly be more than the fiscal year 1974 appropriation for the existing health manpower programs, the benefits of these programs—an adequate supply of health manpower in all of our towns, communities and neighborhoods—more than justifies the relatively small initial additional cost.

Further, the requirement for repayment by NHSC projects of scholarship costs insures that the appropriations necessary to support this program will decrease significantly once the program is fully operational.

I include the following material:

TABLE I.—ESTIMATED FISCAL YEAR 1973 COSTS OF NATIONAL HEALTH SERVICE CORPS SCHOLARSHIP PROGRAM, PART A OF H.R. 14357

	Number of students 1972–73	90 percent of number of students	One-half of net educational expenditure	Total payments for "approved tuition"	Total payments for living expenses	Total payments
	(1)	(2)	(3)	(4)	(5)	(6)
Medicine	47,107	42,396	4,850	205,620	211,980	417,600
Osteopathy	2,565	2,308	3,500	8,078	11,540	19,618
Dentistry	18,456	16,610	3,700	61,457	83,050	144,507
Optometry	3,313	2,982	1,550	4,622	14,910	19,532
Podiatry	1,403	1,263	2,450	3,094	6,315	9,409
Veterinary medicine	5,437	4,893	2,775	13,578	24,465	38,043
Total				296,449	352,260	648,709

Note: Col. (1) Total number of students in the various degree programs in academic year 1972–73. Col. (2) 90 percent of the total number of students from col. (1). This is an estimate of the percentage of eligible students who will choose to participate in the scholarship program. Col. (3) One-half of the average net educational expenditure (in dollars) in the various degree programs in the academic year 1972–73, as determined by the Institute of Medicine. Used here as an estimate of the "approved tuition" to be paid under the scholarship program. Col. (4) An estimate of the total payments (in thousands of dollars) for "approved tuition" that would have to be made under the scholarship program in fiscal year 1973. These sums would substitute for existing title VII and tuition payments to the degree programs. Col. (5) An estimate of the total payments (in thousands of dollars) for living expenses, at $5,000 per student, that would have been made under the scholarship program in fiscal year 1973. The sums would substitute for the existing title VII scholarship and loan programs. Col. (6) An estimate of the total payments (in thousands of dollars) to be made to students under the program.

SECTION-BY-SECTION ANALYSIS OF H.R. 14357, THE NATIONAL HEALTH SERVICES MANPOWER ACT OF 1974

SEC. 1. States the short title of H.R. 14357, which is the "National Health Services Manpower Act of 1974."

Sec. 2. Amends title VII of the Public Health Service Act by deleting it and inserting in its place a new title VII called, "Title VII—National Health Services Manpower" and Parts A through E of new title VII.

Part A—National Health Service Corps Scholarships

Sec. 2—new sec. 701(a). Establishes a National Health Service Corps Scholarship Training Program in order to recruit physicians for the National Health Service Corps. (Note: The Public Health and National Health Service Corps Scholarship Training Program was originally created under the 1972 amendments to the Emergency Health Personnel Act. New Part A of H.R. — would substantially amend that already existing program and transfer it from section 225 of the Public Health Service Act to new title VII.)

New sec. 701(b). Sets forth eligibility requirements for individuals who wish to participate in the Scholarship Program. In order to participate such individuals must:

(1) be accepted for enrollment or enrolled as full-time students in accredited educational institutions which are located in the U.S., its territories or possessions) which are in full compliance with title VI of the Civil Rights Act (prohibiting discrimination on the basis of race, color, or national origin), and whose tuition charges do not exceed the amounts established under new sec. 701 (c)(2).

(2) pursue an approved course of study leading to a doctorate degree in medicine, osteopathy, dentistry, optometry, podiatry, or veterinary medicine, or a master's degree in clinical nursing, clinical pharmacy, community or public health, or health administration. While pursuing such study individuals are required to maintain acceptable grade levels.

(3) be eligible for, or hold an appointment as a commissioned officer in the Regular or Reserve Corps of the Public Health Service or be selected for civilian service in the National Health Service Corps; and

(4) agree in writing to serve in the Commissioned Corps or as a civilian in the National Health Service Corps in accordance with the conditions set forth under new sec. 702 regarding obligations on the part of individuals serving in the National Health Service Corps.

New sec. 701(c)(1). Entitles eligible individuals to receive an annual scholarship payment directly from the Secretary of HEW for a maximum of four approved academic years of professional training. Limits the annual amount of a scholarship payment to the participant's tuition costs (as approved by the Secretary) plus $5,000 to cover living expenses and other necessary educational expenses not covered by tuition costs. Re-

quires the Secretary to make annual adjustments to the $5,000 payment in proportion to any inflation in living costs.

New sec. 701(c)(2). Requires the Secretary to determine the amount of tuition costs payable to participants. Provides that such amount cannot exceed (i) one-half of the institution's net educational expenditures for each student enrolled in the participant's program, or (ii) $7,500, whichever is less.

Sets a bottom limit on the amount of tuition costs which the Secretary can approve for each institution. Provides that such amounts cannot be less than:

(A) the greater of (1) the amount paid to the institution in 1973–74, under the Health Professions Capitation Grant Program and the program of Formula Grants to Schools of Public Health for each student enrolled in the participant's program, or

(2) 20% of the institution's net educational expenditures for each student enrolled in the participant's program in 1972–73; plus

(B) the average tuition paid by each student in the participant's program in 1973–74.

When determining net educational expenditures the Secretary is required to use the essential elements of the methodology developed by the National Academy of Sciences-Institution of Medicine for determining such expenditures.

New sec. 701(c)(3). Permits the Secretary to pay an accredited educational institution the tuition and other payments authorized under new sec. 701, instead of paying the scholarship recipient directly.

New sec. 701(c)(4). Requires payments authorized under this section to be paid from the National Health Services Corps Trust Fund established under new sec. 704A.

New sec. 702(a)(1). Sets forth tie obligations which must be met by individuals receiving National Health Service Corps Scholarships. Recipients must serve on active duty as commissioned officers in the Public Health Service (PHS) or as civilians in the National Health Service Corps (NHSC) when the training for which the scholarship was received is completed. Requires scholarship recipients to serve six months of active duty service for each year of scholarship support. Recipient must serve at least twelve months. During NHSC service, recipients must provide health services to medically underserved populations (as designated under new sec. 712) or serve in other areas or institutions which the Secretary has designated as having a priority need for health personnel.

New sec. 702(a)(2). Permits physicians and dentists who are doing internships and residencies in family practice to defer beginning the NHSC obligation until such training is completed. All others must begin their obligation upon completion of their academic training.

New sec. 702(a)(3). Permits the Secretary to require scholarship recipients to spend an eight-week period during each sponsored year in a medically underserved area (as designated under new sec. 712) in order to introduce the recipient to the type of practice he or she will engage in during the obligation period.

New sec. 702(b)(1). Entitles the U.S. to recover funds from NHSC scholarship recipients if such persons fail to serve in the NHSC. Establishes a formula for determining such amounts. Requires repayment of amount owed within two years after it becomes due.

New sec. 702(b)(2). Requires the Secretary to promulgate regulations to establish a mechanism for waiving or suspending compliance with NHSC obligations if compliance is impossible or would cause extreme hardship.

New sec. 702(b)(3). Provides that scholarship recipients who are academically dismissed or who voluntarily terminate their studies are not bound to repayment requirements. However, if such persons complete their studies at a later date they would be bound by the payback clause.

New sec. 703(a). Prohibits counting NHSC scholarship recipients as employees of DHEW when determining DHEW employment ceilings.

New sec. 703(b). Requires the Secretary to issue regulations implementing the National Health Service Corps Scholarship Program.

New sec. 704. Establishes a National Health Service Corps Trust Fund in the Treasury. Authorizes to be appropriated to the fund for fiscal years 1975, 1976, and 1977, an amount equal to the total amount of funds received by the Secretary for services rendered by the NHSC (as determined under new sec. 716(a)(3)).

Also authorizes to be appropriated for fiscal years 1975, 1976 and 1977, such sums as may be necessary to carry out the National Health Service Corps Scholarship Program.

Part B—National Health Service Corps

New sec. 711. Establishes the National Health Service Corps within the Public Health Service. Provides that the membership of the NHSC will consist of (i) regular and reserve offices in the PHS Corps, and (ii) civilian personnel as designated by the Secretary. (Note: The National Health Service Corps was first established in 1970 by the Emergency Health Personnel Act. The Act was amended and reauthorized in 1972. New Part B of H.R. —— substantially amends the already existing program and transfers it from sec. 329 of the Public Health Service Act to new ttile VII.)

Requires the Secretary to use the NHSC to improve the delivery of health services to medically underserved populations.

New sec. 712(a). Requires the Secretary to designate all medically underserved populations in the U.S. Defines the term, "medically underserved population," to mean: "a population of an urban or rural area (which does not have to conform to the geographical boundaries of a political subdivision and which should be a rational area for the delivery of health services) which the Secretary determines has a critical health manpower shortage or a population group determined by the Secretary to have such a shortage."

Requires the Secretary, when designating medically underserved populations, to consider the recommendations of the "a" or "b" health planning agencies that cover the area in which the underscrved population resides.

New sec. 712(b). Permits anyone to apply to have a population designated as medically underserved. Requires the Secretary to consider the following before designating a population as medically underserved:

(1) ratios of available health manpower to the population for which the application is made;

(2) indicators of the population's access to health services;

(3) indicators of the health status of the population; and

(4) indicators of such population's need and demand for health services.

New sec. 713(a). Establishes the conditions which the Secretary must follow when assigning NHSC personnel to a medically underserved area. Authorizes the Secretary to assign NHSC personnel to such areas only if:

(1) the State health agency, the local public health agency, or any other public or nonprofit private health agency or institution serving the population applies for assignment; and

(2) the local government responsible for the population certifies that such assistance is needed.

New sec. 713(b)(1). Prohibits the approval of applications requesting assignment of NHSC personnel unless the applicant:

(A) meets the conditions for application approved under new sec 716(a), and

(B) has given its "a" or "b" health planning agency the opportunity to review and comment to the Secretary on the information contained in its application.

Directs the Secretary to consider the population's need for health services and the willingness of the community to cooperate with the NHSC, when determining application approval.

New Sec. 713(b)(2). Sets a maximum time period for assignment of NHSC personnel to a medically underserved population. Terms this period an "approved assistance period" and defines it to mean: a period "which may not exceed four years from the date of the first assignment of NHSC personnel after the date of the approval of the application."

Prohibits the Secretary from assigning NHSC personnel to a medically underserved population after the approved assistance period has expired. Permits extension of assigned period only if:

(A) a new application is submitted meeting all conditions and requirements;

(B) the Secretary has evaluated (i) the community's continued need for NHSC personnel, (ii) the growth of NHSC practice in the community; and (iii) community support for the NHSC; and

(3) the Secretary has determined that the community has (i) made a concerted effort to recruit its own health manpower; (2) managed the Corps on a fiscally sound basis; and (iii) utilized the Corps appropriately and efficiently.

New sec. 713(c). Directs the Secretary to assign NHSC personnel to a medically underserved population only on the basis of the community's need for health services and without regard to its ability to pay for services.

New sec. 713(d). Directs the Secretary to try to assign NSHC personnel to communities in which they are most likely to remain after their assignment period has expired.

New sec. 714(a). Requires NHSC personnel to provide health services (i) in a form which is most appropriate for the community being served, and (ii) to the entire population of the community, regardless of any individual's ability to pay for care. Directs the Corps (if possible) to use any Federally assisted direct health service program or any other health service activity which would help the Corps deliver care to medically underserved populations.

New sec. 714(b). Authorizes the Secretary to make arrangements for the NHSC to:

(1) use any health facility located in the assigned area;

(2) use the equipment and supplies of the PHS;

(3) lease or acquire other equipment and supplies; and

(4) recruit and hire nurses and additional allied health professions personnel on a temporary basis.

New sec. 716(c) Requires the Secretary to make arrangements for the NHSC to use a PHS hospital or outpatient clinic if a PHS facility is located in the assigned area, and the arrangements can be made without jeopardizing the delivery of health services statutory PHS benficiaries. If no PHS facility is located in or serving the assigned area, then the Secretary is authorized to make such arrangements with the nearest PHS facility, or with any other health facility.

New sec. 715. Authorizes the Secretary to make one grant to each entity with an approved application under sec. 713. This start-up grant must be used to establish medical practice management systems for NHSC personnel, acquire equipment, and establish continuing education programs. Entities must apply to the Secretary for this grant, and its amount is limited to a maximum of $25,000.

New sec. 716(a). Sets forth the conditions of approval for applications requesting assignment of NHSC personnel to medically underserved populations. Requires each entity submitting an application to make a binding arrangement with the Secretary under which the entity agrees to:

(1) charge for health services rendered by NHSC personnel;

(2) collect charges for health services rendered (if reasonably possible). In this respect the applicant is responsible for collecting payments from any third party payor (including public agencies) that would ordinarily be responsible for paying for the costs of such services if the services were provided by other than NHSC personnel;

(3) pay to the U.S. the lesser of:

(a) 75 percent of all charges for services collected by the entity; or

(b) the pay and allowances of the NHSC personnel, plus an amount to cover the scholarship payments made to such personnel under sec. 701 (prorated to cover the length of each individual's assignment period).

New sec. 716(b). Requires the NHSC to charge people for services rendered. Charges can be made on a fee-for-service or any other basis and must be set at a rate which reflects the value of the services rendered. Rates are to be set by the Secretary pursuant to regulations. Individuals who cannot pay for services will receive them free of charge (as determined in accordance with the Secretary's regulations).

New sec. 717. Requires the Secretary, under his prescribed regulations, to adjust the monthly pay of NHSC physicians and dentists who are serving medically underserved populations in order to make their salaries competitive with physicians and dentists in established practices with equivalent training. The monthly increase is limited to a maximum $1,000, and can be made only for the first three years of an individual's assigned period. Thereafter, salaries must remain constant.

NHSC personnel who participate in the NHSC Scholarship Training Program become eligible for this increment upon completion of their service obligation.

New sec. 718. Requires the Secretary to (i) conduct recruiting programs for the NHSC at health professions schools and training centers, (ii) assist people who request assignment of NHSC personnel, and (iii) conduct public information programs in medically underserved areas about the NHSC.

New sec. 719(a). Requires the Secretary to conduct or contract for studies of methods of assigning NHSC personnel in order to identify (i) the characteristics of health manpower who are likely to remain in practice in medically underserved areas, (ii) the characteristics of areas which have been able to retain health manpower, (iii) the appropriate conditions for the assignment of independent nurse practitioners and physicians' assistants in medically underserved populations, and (iv) the effect that primary care residency training in such areas has on the health care provided in the area and on the decisions of physicians who have received such training to practice in medically underserved areas.

New sec. 719(b). Authorizes the Secretary to sell to communities to which NHSC personnel have been assigned, at fair market value, any equipment owned by him which has been used by NHSC personnel in providing health services.

New sec. 719(c). Prohibits including any NHSC personnel who are serving medically underserved populations in any employee counts in order to determine employment ceilings for DHEW.

New sec. 720(a). Requires the Secretary to make an annual report to Congress (by May 15 of each year) on:

(1) medically underserved populations designated in the previous year and those which will be designated in the current year;

(2) applications filed in the previous year requesting assignment of NHSC personnel and action taken on such applications;

(3) NHSC personnel assigned to medically underserved populations in the previous year and the number of such individuals who applied to the NHSC;

(5) total patients seen and patients visits recorded in the previous year;

(6) NHSC personnel electing to remain in medically underserved area after completion of service, and the number electing to leave;

(7) results of evaluations required under sec. 713(b)(2)(B)(ii) and (iii) for the previous year; and

(8) amounts charged, collected, and paid to the Secretary in the previous year for services rendered by NHSC personnel.

New sec. 720(b). Requires the Secretary to report to Congress by September 1, 1974, on the criteria used in designating medically underserved populations and the publication of a list of such populations by January 1, 1975.

New sec. 721. Renames the existing national advisory council as the National Advisory Council on the National Health Service Corps. The counsel is to be composed of fifteen members including membership from communities served and NHSC personnel assigned to such communities. Gives the Council the authority to review and approve NHSC program regulations.

New sec. 722. Authorizes such sums as may be necessary to carry out the purposes of the NHSC as authorized under part B of new title VII. Authorizes the Secretary to seek appropriations for the NHSC one year in advance but prohibits him from using such funds prior to the year for which they are appropriated.

Part C—Post-Graduate Physician Training

New sec. 731. Establishes within the PHS the National Council on Post-graduate Physician Training and requires its membership to consist of (i) eleven members in the profession of medicine and osteopathy, (ii) five members who are nonphysician health professionals, and (iii) three members from the general public.

New sec. 732(a). Defines the purpose of the National Council. Requires the National Council, before July 1, 1976, to study the system of post-graduate training for physicians in the United States. Specifically requires the National Council to:

(1) commission and supervise an investigation of physician specialty distribution in the United States and its possessions;

(2) develop collaborative working relationships with each physician specialty organization to determine and assist their individual activities with respect to the number and location of practitioners within each specialty;

(3) assess the need for financial support for the postgraduate training of physicians, especially in primary care specialties;

(4) assess the service needs of hospitals and other health institutions, the role of postgraduate physician trainees in meeting such needs, and alternative means of meeting such needs;

(5) assess the educational component of postgraduate training programs for physicians;

(6) assess the impact of FMG's on the present and future health care in the U. S. and foreign nations.

New sec. 733(a). Establishes in each of the Council, after July 1, 1976, to administer the program relating to the postgraduate training of physicians, authorized under new sec. 735.

New sec. 733(a). Establishes in each of the ten DHEW regions in the U.S., a Regional Council on Postgraduate Physician Training and defines the membership of each regional council to include (i) eleven members in the profession of medicine and osteopathy, (ii) five members who are non-physician health professionals, and (iii) three members from the general public.

New sec. 734(a). Defines the purpose of the regional council. Requires each regional council, before July 1, 1976, to conduct studies and other activities relating to the postgraduate training of physicians within its specific region. Regional councils are specifically required to:

(1) survey the institutions providing postgraduate training of physicians within the region and the types of training which is and might be provided by such institutions;

(2) assess the service needs of hospitals and other health institutions within the region, including an assessment of the role that postgraduate physician trainees play in meeting such needs and alternative means of meeting such needs;

(3) assess the educational component of the postgraduate training programs for physicians conducted within the region;

(4) assess the status of the financial support of the postgraduate training of physicians within the region, especially of primary care training programs;

(5) develop collaborative working relationships with regional medical programs, comprehensive health planning programs, State departments of health, and area health education system programs operating within the region.

New sec. 734(b). Requires each regional council, after July 1, 1976, to administer the program authorized under new sec. 736 regarding the certification of postgraduate training positions for physicians within its region.

New sec. 735(a). Requires the national council (beginning on July 1, 1976, and annually every July 1, thereafter) to conduct certification program which will:

(1) Establish the total number of postgraduate physician training positions to be certified for the year beginning the following July 1. Prohibits the number of positions certified from exceeding 110 percent of the total number of M.D. and D.O. degrees expected to be granted during the intervening year;

(2) assign the total number of certified positions to the various categories of specialty and subspecialty medical practice recognized within the United States.

(3) assign from the certified positions in each medical and surgical specialty and subspecialty certified positions to each of the ten regional councils.

New sec. 735(b). Requires the national council (beginning on October 1, 1976, and annually every October 1, thereafter) to directly certify each postgraduate training position in entities which train physicians in medical and surgical specialties and subspecialties and for which there is a severely limited national need. Requires that the number of such positions certified each year cannot exceed 10 percent of all postgraduate training positions certified in that year. Requires the national council (beginning on August 1, 1976 and annually every August 1, thereafter) to notify each regional council of such positions directly certified in its region. Prohibits the national council from directly certifying such positions if the regional council disapproves the certification.

New sec. 736(a). Requires each regional council (by October 1, 1976 and annually every October 1, thereafter) to certify all postgraduate training positions in a medical or surgical specialty within its region. Sets forth conditions for certification. Prohibits the regional council from certifying:

(1) any positions which exceed the number assigned by the national council;

(2) positions in entities have less than 150 certified positions;

(3) positions in any entity which maintains uncertified positions; or

(4) positions which are not a part of, at a minimum, an integrated three-year postgraduate physician training program.

New sec. 736(b). Sets up guidelines for regional councils to follow when certifying postgraduate training positions. Each regional council must:

(1) try to insure equitable distribution of positions within the region;

(2) insure that the educational component of each training program meets acceptable standards; and

(3) give special consideration to certifying positions associated with, as an integrated part, an area health education system, as defined under new sec. 751.

New sec. 737. Directs the national council and each regional council to coordinate with the Liaison Committee on Graduate Medical Education when meeting the requirements of secs. 732(a)(5), 734(a)(3), and 736(b)(2) concerning the educational component of postgraduate physician training.

New sec. 738(a) requires the Secretary to make grants or enter into contracts with entities or associations of such entities that provide postgraduate training for physicians and which are certified as likely to increase the number of those positions before July 1, 1977. Requires the assistance to be used to develop new or expand existing postgraduate training programs.

New sec. 738(b). Requires the Secretary when awarding assistance to give priority to (i) programs which train primary care physicians, especially family practitioners, and (ii) programs which train primary care physicians and are located in physician shortage areas.

New sec. 738(c). Limits the amount of such assistance to $100,000 per program in any fiscal year. Limits the term of the award to two years.

New sec. 738(d). Authorizes to be appropriated for fiscal year 1975, 1976, and 1977, such sums as may be necessary to make grants and contracts under new sec. 738.

New sec. 739. Requires the Secretary to make grants to entities which will:

(1) directly provide postgraduate training for physicians on July 1, 1977;

(2) have fewer postgraduate trainees as a result of the certification process established under new secs. 735 and 736; and

(3) will use the award to provide those services, formerly provided by postgraduate trainees, through other health professionals, especially nurse clinicians.

Requires the Secretary to pay $10,000 for each position decrease in the first year after the decrease has occurred, and $5,000 in the second year. Authorizes to be appropriated for fiscal years 1978, 1979, and 1980, such sums as may be necessary to carry out the provisions of new sec. 739.

New sec. 740. Requires the Secretary to contract for a study to:

(1) analyze the current distribution of physicians by geographic area and by specialty and subspecialty;

(2) project the expected distribution of physicians by specialty and subspecialty by geographic area in the years 1980, 1985, and 1990;

(3) examine and critically evaluate the various methodologies for estimating the optimal distribution of physicians by specialty and subspecialty and by geographic area.

(4) develop a reliable and appropriate methodology to establish the optimal distribution of physicians by specialty and subspecialty and by geographic area and use such methodology to make projections on the optimal number of physicians, and their geographic and specialty and subspecialty distribution for the years 1980, 1985, and 1990.

Requires the Secretary to contract for this study within 90 days after the appointment of the national council. Requires the national council to approve the entity conducting the study.

New sec. 740(b). Establishes guidelines for the national council to follow when approving the organization to conduct the study.

New sec. 740(c). Requires an interim report on the study by January 31, 1975 and a final report by January 31, 1976. Reports must be submitted to the House Interstate and Foreign Commerce Committee and the Senate Labor and Public Welfare Committee.

New sec. 740A. Prohibits any health insurer that:

(1) deals in interstate commerce, and

(2) grosses at least $1 million annually to reimburse or otherwise pay for these expenses associated with (i) non-certified postgraduate training programs for physicians, and (ii) programs which have been certified under new sec. 735(c). Requires the Secretary to assess a civil penalty of not more than $5,000 to health insurers not abiding by this requirement and permits the Secretary to take civil action against the insurer to collect it.

Supersedes State laws which would require a health insurer to make any payment which is prohibited under this section.

Part D—Special Project Grants

New sec. 741(a). Authorizes the Secretary to make grants to public or nonprofit private schools of podiatry and other entities for projects to:

(1) merge podiatric training programs with physician and other health professional training programs and academic institutions, or (2) make other cooperative arrangements among podiatric training programs and other health professional training programs and academic institutions.

New sec. 741(b). Authorizes to be appropriated such sums as may be necessary for fiscal years 1975, 1976, and 1977 to carry out the purposes of a new sec. 741.

New sec. 742(a). Authorizes the Secretary to make grants and enter into contracts with public or private non-profit private schools of nursing, pharmacy, public health, health administration and other public or nonprofit private entities for projects to develop and expand graduate training programs for:

(1) clinical nursing personnel;

(2) clinical pharmacy personnel; and

(3) community and public health personnel and health administrators.

New sec. 742(b). Authorizes to be appropriated such sums as may be necessary for fiscal years 1975, 1976, and 1977 to carry out the purposes of new sec. 742.

New sec. 743(a). Authorizes the Secretary to make grants to public and non-profit private undergraduate schools of nursing, pharmacy and allied health and other public or non-profit private entities for projects to:

(1) increase the supply and improve the distribution of adequately trained health personnel;

(2) effect significant improvements in the curriculum of such schools;

(3) plan, develop or establish new programs or modifications of existing programs of health personnel education;

(4) increase educational opportunities for disadvantaged students; and

(5) otherwise strengthen, improve or expand programs to train health personnel.

New sec. 743(b). Requires the Secretary to give priority to entities whose application for grants has been approved by an area health education system (as defined under new sec. 751) serving the area in which the applicant is located.

New sec. 743(c). Authorizes to be appropriated such sums as may be necessary in the years 1975, 1976, and 1977 to carry out the purposes of new sec. 743.

Part E—Area Health Education Systems

New sec. 751(a). Defines the term "area health education system" to mean a public or nonprofit private entity that:

(1) continuously evaluates health education programs in its area and the effect and impact of such programs on residents of the area;

(2) provides and coordinates health education services in its area, including (i) nurse and allied health personnel training, (ii) post-graduate training of physicians in, at the minimum, primary medical specialties, (iii) continuing education programs, (iv) health professions career counceling, and (v) personal health maintenance services;

(3) has formal working arrangement with (i) a university health education center, (ii) State and community colleges and private universities and colleges which provide health professions, nursing, and allied health professions, (iii) hospitals and other health delivery entities providing health services or health education training programs, (iv) State and community public health agencies providing community health education, (v) voluntary health agencies and organizations providing health education within the area, (vi) State and local health planning agencies, and (vii) PSRO's;

(4) has a governing board whose members reside in the area and are associated with institutions and organizations from the educational field; (ii) institutions that provide health services, (iii) State and local health planning agencies, (iv) county and local governments, and (v) consumers of health services who are broadly representative of the area's population groups.

New sec. 751(b). Defines the term "health education area" to mean a geographic area designated by the Secretary. Requires such area to (i) be a rational area for planning and coordinating health education, (ii) include (if possible) at least one university health science center, and (iii) follow the boundaries of one or more sec. 314(b) areawide health planning areas.

New sec. 752(a) Authorizes the Secretary to make grants to public or nonprofit private entities for projects to plan, develop, and operate area health education systems. Limits the amount of a grant under this section to $500,000 per fiscal year.

New sec. 752(b) Prohibits the Secretary from making grants under this section unless the applicant has been approved by the sec. 314(b) areawide health planning agency and regional medical program operating in its area.

New sec. 752(c). Authorizes to be appropriated for fiscal years 1975, 1976, and 1977, such sums as may be necessary to carry out the purposes of new sec. 751.

Part F—Loan Guarantees and Interest Subsidies

New sec. 761. Establishes a Federally guaranteed student loan program for students of nursing, pharmacy, and the allied health professions (as defined by regulations). Authorizes the Secretary, between July 1, 1974, and June 30, 1977, to guarantee loans made by non-Federal lenders to such students and to pay on their behalf a 3 percent interest subsidy on such loans. Limits the amount of a loan guarantee to $5,000 per student per academic year. Loans guaranteed under this program must be used for living expenses and necessary education costs during the period for which the loan is made.

Establishes a Health Manpower Loan Guarantee Fund in the Treasury to enable the Secretary to meet his responsibilities under this section. Authorizes to be appropriated, from time to time, amounts required for the operation of the fund.

Title II—Miscellaneous

Sec. 3. Repeals the Public Health and National Health Service Corps Scholarship

Training Program under sec. 225 of the PHSA, Traineeships for Professional Public Health Personnel under sec. 306 of the PHSA, Project Grants for Graduate Training in Public Health under sec. 309 of the PHSA, the National Health Service Corps under sec. 329 of the PHSA, programs for Health Research and Teaching Facilities and Training of Professional Health Personnel under title VII of the PHSA, and programs for Nurse Training under title VIII of the PHSA.

H.R. 14357

A bill to amend the Public Health Service Act, to revise the programs of student assistance, to revise the National Health Service Corps program, to establish a system for the regulation of postgraduate training programs for physicians, to provide assistance for the development and expansion of training programs for nurse clinicians, pharmacist clinicians, community and public health personnel, and health administrators, to provide assistance for projects to improve the training provided by undergraduate schools of nursing, pharmacy, and allied health and to provide assistance for the development and operation of area health education systems, to establish a loan guarantee and interest subsidy program for undergraduate students of nursing, pharmacy, and the allied health professions, and for other purposes

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

SECTION 1. This Act may be cited as the "National Health Services Manpower Act of 1974".

SEC. 2. Title VII of the Public Health Service Act is amended to read as follows:

"TITLE VII—NATIONAL HEALTH SERVICES MANPOWER

"PART A—NATIONAL HEALTH SERVICES CORPS SCHOLARSHIPS

"SEC. 701.(a) There is established the National Health Service Corps Scholarship Program (hereinafter in this section referred to as the 'program') for the purpose of obtaining physicians for the National Health Service Corps established within the Service by part B.

"(b) To be eligible for participation in the program, an individual must—

"(1) be accepted for enrollment, or be enrolled, as a full-time student in an educational institution in the United States, or its territories or possessions which: (A) is accredited (as determined by the Secretary); and (B) is in full compliance (as determined by the Secretary) with title VI of the Civil Rights Act of 1964; (C) does not charge any student in a degree program any tuition in excess of the amount established for such degree program under subsection (c)(2).

"(2) pursue an approved course of study, and maintain an acceptable level of academic standing, leading to a doctorate level degree in medicine, osteopathy, dentistry, optometry, podiatry, or veterinary medicine, or a master level degree in clinical nursing, clinical pharmacy, community or public health, or health administration.

"(3) be eligible for, or hold, an appointment as a commissioned officer in the Regular or Reserve Corps of the Service or be selected for civilian service in the National Health Service Corps; and

"(4) agree in writing to serve, as prescribed by section 702, in the Commissioned Corps of the Service or as a civilian member of the National Health Service Corps.

"(c)(1) Except as provided in paragraph (3), each eligible individual shall be entitled to the payment by the Secretary of a scholarship for each approved academic year of training (not to exceed four years). The annual amount of such a scholarship shall be equal to—

"(A) the tuition cost (approved under paragraph (2)) for the degree program of the institution in which the participant is enrolled, plus

"(B) $5,000 to cover living expenses, books, equipment, and other necessary educational expenses which are not otherwise paid as a part of the tuition payment. If the average of the Consumer Price Index (published by the Bureau of Labor Statistics) for the months in any fiscal year exceeds the average of such Index in the months of the preceding fiscal year, the Secretary shall increase the payments made under clause (B) for the fiscal year following such increase in proportion to the amount of such increase.

"(2)(A) The tuition amount approved by the Secretary for any institution shall not be more than the lesser of—

"(i) one-half of the net educational expenditures per student in such degree program at that institution as determined by regulations of the Secretary; or

"(ii) $7,500.

"(B) In no case shall the tuition amount approved be less than an amount equal to the sum of: (i) the greater of: (I) the amount paid to such institution for each student in such degree program under either section 770 or 309(c) in academic year 1973–1974; or (II) 20% of the net educational expenditure for each student in such degree program at such institution (as determined by the Secretary in academic year 1972–73; and (ii) the average amount paid as tuition by each student in such degree program in academic year 1973–1974. In determining such net educational expenditures, the Secretary shall utilize the essential elements of the methodology for determining such expenditures developed by the Institute of Medicine of the National Academy of Sciences in carrying out the study required by section 205 of the Comprehensive Health Manpower Training Act of 1971.

"(3) The Secretary may contract with an accredited educational institution for the direct payment to the institution of the tuition and other educational expenses, otherwise covered under this section, for students participating in the program. Amounts paid under contracts shall be in lieu of scholarship payments under paragraph (1)(A) to the students for whom benefit the contracts were entered into.

"(4) Payments under this subsection shall be made from the National Health Service Corps Trust Fund established under section 704.

"SEC. 702. (a)(1) An individual participating in the program shall be obligated to serve on active duty as a commissioned officer in the Service or as a civilian member of the National Health Service Corps following completion of academic training. Such period of active duty shall be six months of service on active duty for each year of training received under the program with a minimum service time of twelve consecutive months. The period of service required under this subsection shall be spent providing health services—

"(A) to a population designated under section 712 as a medically underserved population, or

"(B) if health manpower is not needed by such populations, in other areas or institutions (including Public Health Service and Veterans Administration hospitals and clinics. Indian Health Service hospitals and clincis, Federal and State prisons, State mental hospitals and neighborhood and family health centers,) designated by the Secretary as having a priority need for health personnel.

"(2) The beginning of a period of service for medical doctors or osteopaths shall be deferred for the period of time required to complete an internship and residency training in family practice, internal medicine, pediatrics, obstetrics and gynecology, general surgery, or psychiatry. Periods of internship or residency shall not satisfy any active duty service obligation under this section. For persons receiving degrees in other health professions the obligated service period shall commence upon completion of their academic training.

"(3) Any person participating in the program may be required to spend a period of eight weeks during each sponsored year in an area designated by the Secretary under section 712 for educational purposes and for introduction to the type of practice to be engaged in during the period of obligation. Travel costs to and from such area shall be provided by the Secretary.

"(b)(1) Except as provided in paragraph (2) or (3), if, for any reason, a person fails to either begin his service obligation under this section in accordance with subsection (a) or to complete such service obligation, the United States shall be entitled to recover from such individual an amount determined in accordance with the formula

$$A = 2\phi\left(\frac{t-s}{t}\right)$$

in which "A" is the amount the United States is entitled to recover; ϕ is the sum of the amount paid under section 701 to or on behalf of such person and the interest on such amount which would be payable if at the time it was paid it was a loan bearing interest at the maximum legal prevailing rate; "t" is the total number of months in such person's service obligation; and "s" is the number of months of such obligation served by him in accordance with subsection (a). Any amount which the United States is entitled to recover under this paragraph shall, within the two-year period beginning on the date the United States becomes entitled to recover such amount, be paid to the United States.

"(2) The Secretary shall by regulation provide for the waiver or suspension of any obligation under this section applicable to any individual whenever compliance by such individual is impossible or would involve extreme hardship to such individual and if enforcement of such obligation with respect to any individual would be against equity and good conscience.

"(3) When a person undergoing training in the program is academically dismissed or voluntarily terminates academic training, he shall not be liable for repayment to the U.S. Government of amounts paid under this section on his behalf unless he, at some subsequent date, completes a doctorate level degree in medicine, osteopathy, dentistry, optometry, podiatry, or veterinary medicine, or a master level degree in clinical nursing, clinical pharmacy, or public health or health administration.

"SEC. 703. (a) Notwithstanding any other provision of law, persons undergoing academic training under the program shall not be counted against any employment ceiling affecting the Department of Health, Education, and Welfare.

"(b) The Secretary shall issue regulations governing the implementation of this part within six months of the enactment of this Act.

"SEC. 704. (a)(1) There is established in the Treasury of the United States a trust fund to be known as the National Health Service Corps Trust Fund consisting of such amounts as may be appropriated to the trust fund as provided in this subsection.

"(2) For each of the fiscal years ending June 30, 1975, June 30, 1976, and June 30, 1977, there are authorized to be appropriated to the trust fund an amount equal to the total amount received in each such fiscal year by the Secretary under the provisions of section 716(a)(3)(B)(ii) for services rendered by members of the National Health Service Corps. The amounts appropriated

by this paragraph shall be transferred at least quarterly from the general fund of the Treasury to the trust fund on the basis of estimates made by the Secretary of the amounts to be received for the provision of such services. Proper adjustments shall be made in the amounts subsequently transferred to the extent prior estimates were in excess of or less than the amounts required to be transferred.

"(3) For each of the fiscal years ending June 30, 1975, June 30, 1976, and June 30, 1977, there are authorized to be appropriated to the trust fund such sums as may be necessary for the operation of the program.

"PART B—NATIONAL HEALTH SERVICE CORPS

"SEC. 711. There is established, within the Service, the National Health Service Corps (hereinafter in this section referred to as the 'Corps') which shall consist of those officers of the Regular and Reserve Corps of the Service and such other personnel as the Secretary may designate and which shall be utilized by the Secretary under this section to improve the delivery of health services to medically underserved populations.

"SEC. 712. (a) The Secretary shall designate the medically underserved populations in the States. For purposes of this section, a medically underserved population is the population of an urban or rural area (which does not have to conform to the geographical boundaries of a political subdivision and which should be a rational area for the delivery of health services) which the Secretary determines has a critical health manpower shortage or a population group determined by the Secretary to have such a shortage; and the term 'State' includes Guam, American Samoa, and the Trust Territory of the Pacific Islands. In designating medically underserved populations, the Secretary shall take into account (1) the recommendations of the entities responsible for the development of the plans referred to in section 314 (b) which cover all or any part of the areas in which populations under consideration for designation reside, and (2) in the case of any such area for which no such entity is responsible for developing such a plan, the recommendations of the agency of the State (or States) in which such area is located which administers or supervises the administration of a State plan approved under section 314(a).

"(b) Any person may apply to the Secretary (in such manner as he may prescribe) for the designation of a population as a medically underserved population. In considering an application under this paragraph, the Secretary shall take into account the following in addition to criteria utilized by him in making a designation under subsection (a):

"(1) Ratios of available health manpower to the population for which the application is made.

"(2) Indicators of the population's access to health services.

"(3) Indicators of health status of the population.

"(4) Indicators of such population's need and demand for health services.

"SEC. 713. (a) The Secretary may assign personnel of the Corps to provide, under regulations prescribed by the Secretary, health services for a medically underserved population if—

"(1) the State health agency of each State in which such population is located or the local public health agency or any other public or nonprofit private health entity serving such population makes application to the Secretary for such assignment, and

"(2) the local government of the area in which such population resides, certify to the Secretary that such assignment of Corps personnel is needed for such population.

"(b)(1) The Secretary may not approve an application under subsection (a) for an assignment unless the applicant agrees to enter into an agreement with the Secretary in accordance with section 716(a) and has afforded—

"(A) the entity responsible for the development of the plans referred to in section 314(b) which covers all or any part of the area in which the population for which the application is submitted resides, and

"(B) if there is a part of such area for which no such entity is responsible for developing such plans, the agency of the State in which such part is located which administers or supervises the administration of a State plan approved under section 314(a),

an opportunity to review the application and submit its comments to the Secretary respecting the need for and proposed use of manpower requested in the application. In considering such an application, the Secretary shall take into consideration the need of the population for which the application was submitted for the health services which may be provided under this section; and the willingness of the population and the appropriate governmental agencies or health entities serving it to assist and cooperate with the Corps in providing effective health services to the population.

"(2)(A) In approving an application submitted under subsection (a) for the assignment of Corps personnel to provide health services for a medically underserved population, the Secretary may approve the assignment of Corps personnel for such population during a period (referred to in this paragraph as the 'assistance period') which may not exceed four years from the date of the first assignment of Corps personnel for such population after the date of the approval of the application. No assignment of individual Corps personnel may be made for a period ending after the expiration of the applicable approved assistance period.

"(B) Upon expiration of an approved assistance period for a medically underserved population, no new assignment of Corps personnel may be made for such population unless an application is submitted in accordance with subsection (a) for such assignment. The Secretary may not approve such an application unless—

"(i) the application and certification requirements of subsection (a) are met;

"(ii) the Secretary has conducted an evaluation of the continued need for health manpower of the population for which the application is submitted, of the utilization of the manpower by such population, of the growth of the health care practice of the Corps personnel assigned for such population, and of community support for the assignment; and

"(iii) the Secretary has determined that such population has made continued efforts to secure its own health manpower that there has been sound fiscal management of the health care practice of the Corps personnel assigned for such population, including efficient collection of fee-for-service, third-party, and other funds available to such population, and that there has been appropriate and efficient utilization of such Corps personnel.

"(c) Corps personnel shall be assigned to provide health services for a medically underserved population on the basis of the extent of the population's need for health services and without regard to the ability of the members of the population to pay for health services.

"(d) In making an assignment of Corps personnel the Secretary shall seek to match characteristics of the assignee (and his spouse (if any)) and of the population to which such assignee may be assigned in order to increase the likelihood of the assignee remaining to serve the population upon completion of his assignment period. The Secretary shall, before the expiration of the last nine months of the assignment period of a member of the Corps, review such member's assignment and the situation in the area to which he was assigned for the purpose of determining the advisability of extending the period of such member's assignment.

"SEC. 714. (a) In providing health services for a medically underserved population under this section, Corps personnel shall utilize the techniques, facilities, and organizational forms most appropriate for the area in which the population resides and shall, to the maximum extent feasible, provide such services (1) to all members of the population regardless of their ability to pay for the services, and (2) in connection with (A) direct health services programs carried out by the Service; (B) any direct health services program carried out in whole or in part with Federal financial assistance; or (C) any other health services activity which is in furtherance of the purposes of this section.

"(b) Notwithstanding any other provision of law, the Secretary (1) may, to the extent feasible, make such arrangements as he determines necessary to enable Corps personnel in providing health services for a medically underserved population to utilize the health facilities of the area in which the population resides, and (2) may make such arrangements as he determines are necessary for the use of equipment and supplies of the Service and for the lease or acquisition of other equipment and supplies, and may secure the temporary services of nurses and allied health professionals.

"(c) If such area is being served (as determined under regulations of the Secretary) by a hospital or other health care delivery facility of the Service, the Secretary shall in addition to such other arrangments as the Secretary may make under subsection (b), arrange for the utilization of such hospital or facility by the Corps personnel in providing health services for the population, but only to the extent that such utilization will not impair the delivery of health services and treatment through such hospital or facility to persons who are entitled to health services and treatment through such hospital or facility. If there are no health facilities in or serving such area, the Secretary may arrange to have Corps personnel provide health services in the nearest health facilities of the Service, or the Secretary may lease or otherwise provide facilities in such area for the provision of health services.

"SEC. 715 The Secretary may make one grant to any applicant with an approved application under section 713 to assist it in meeting the costs of establishing medical practice management systems for Corps personnel, acquiring equipment for their use in providing health services, and establishing appropriate continuing education programs and opportunities for them. No grant may be made under this paragraph unless an application is submitted therefor and approved by the Secretary. The amount of any grant shall be determined by the Secretary, except that no grant may be made for more than $25,000.

"SEC. 716. (a) The Secretary shall require as a condition to the approval of an application under section 713 that the entity which submitted the application enter into an appropriate arrangement with the Secretary under which—

"(1) the entity shall be responsible for charging in accordance with subsection (b) for health services by the Corps personnel to be assigned;

"(2) the entity shall take such action as may be reasonable for the collection of payments for such health services, including if a Federal agency, an agency of a State or local government, or other third party would be responsible for all or part of the cost of such health services if it had not been provided by Corps personnel under this section, the collection, on a fee-for-service or other basis, from such agency or third party the portion

of such cost for which it would be so responsible (and in determining the amount of such cost which such agency or third party would be responsible, the health services provided by Corps personnel shall be considered as being provided by private practitioners); and

"(3) the entity shall pay to the United States the lesser of—

"(A) 75 per centum of the amount collected by the entity in accordance with subsection (a) in each calendar quarter (or other period as may be specified in the agreement), or

"(B) the sum of (i) the pay and allowances for the Corps personnel for such quarter (or other period), and (ii) an amount which bears the same ratio to the total amount of payments made to Corps personnel provided to the entity under section 701 as the number of days in such quarter (or other period) bears to the number of days in the assignment period for such personnel.

Funds received by the Secretary under such an arrangement shall be deposited in the Treasury as miscellaneous receipts and shall be disregarded in determining the amounts of appropriations to be requested under section 722 and the amounts to be made available from appropriations made under such section to carry out this section.

"(b) Any person who receives health services provided by Corps personnel under this section shall be charged for such services on a fee-for-service or other basis at a rate approved by the Secretary, pursuant to regulations, to recover the value of such services; except that if such person is determined under regulations of the Secretary to be unable to pay such charge, the Secretary shall provide for the furnishing of such services at a reduced rate or without charge.

"SEC. 717. The Secretary shall, under regulations prescribed by him, adjust the monthly rate of pay of each physician and dentist member of the Corps who is directly engaged in the delivery of health services to a medically underserved population as follows:

"(1) During the first thirty-six months in which such a member is so engaged in the delivery of health services, his monthly rate of pay shall be increased by an amount (not to exceed $1,000) which when added to the member's regular monthly rate of pay and allowances will provide a monthly income competitive with the average monthly income from an established practice of a member of such member's profession with equivalent training.

"(2) During the period beginning upon the expiration of the thirty-six months referred to in paragraph (1) and ending with the month in which the member's regular monthly rate of pay and allowances is equal to or exceeds the monthly income he received for the last of such thirty-six months, the member shall receive in addition to his regular rate of pay and allowances an amount which when added to such regular rate equals the monthly income he received for such last month.

In the case of a member of the Corps who is directly engaged in the provision of health services to a medically underserved population in accordance with a service obligation incurred under section 702, the provisions of this paragraph shall apply to such member upon satisfactory completion of such service obligation and the first thirty-six months of his being so engaged in the delivery of health care shall, for purposes of this paragraph, be deemed to begin upon such satisfactory completion.

"SEC. 718. (a)(1) The Secretary shall conduct at medical and nursing schools and other schools of the health professions and training centers for the allied health professions, recruiting programs for the Corps. Such programs shall include the wide dissemination of written information on the Corps and visits to such schools by personnel of the Corps.

"(2) The Secretary may reimburse applicants for positions in the Corps for actual expenses incurred in traveling to and from their place of residence to an area in which they would be assigned for the purpose of evaluating such area with regard to being assigned in such area. The Secretary shall not reimburse an applicant for more than one such trip.

"(b) The Secretary shall (1) provide assistance to persons seeking assignment of Corps personnel to provide under this section health services for medically underserved populations, and (2) conduct such information programs in areas in which such populations reside as may be necessary to inform the public and private health entities serving those areas of the assistance available to such populations by virtue of their designation under this section as medically underserved.

"SEC. 719. (a) The Secretary of Health, Education, and Welfare shall conduct or contract for studies of methods of assigning under this part, National Health Service Corps personnel to medically underserved populations and of providing health care to such populations. Such studies shall be for the purpose of identifying (1) the characteristics of health manpower who are more likely to remain in practice in areas in which medically underserved populations are located, (2) the characteristics of areas which have been able to retain health manpower, (3) the appropriate conditions for assignment of independent nurse practitioners and physician's assistants in areas in which medically underserved populations are located, and (4) the effect that primary care residency training in such areas has on the health care provided in such areas and on the decisions of physicians who received such training respecting the areas in which to locate their practice.

"(b) Upon the expiration of the assignment of Corps personnel to provide health services for a medically underserved population, the Secretary (notwithstanding any other provision of law) may sell to the entity which submitted the last application approved under subsection (c) for the assignment of Corps personnel for such population equipment of the United States utilized by such personnel in providing health services. Sales made under this paragraph shall be made for the fair market value of the equipment sold (as determined by the Secretary).

"(c) Commissioned officers and other personnel of the Corps assigned to provide health services for medically underserved populations shall not be included in determining whether any limitation on the number of personnel which may be employed by the Department of Health, Education, and Welfare has been exceeded.

"SEC. 720. (a) The Secretary shall report to Congress no later than May 15 of each year—

"(1) the number, identity, population, and extent of underservice of all medically underserved populations in each of the State in the calendar year preceding the year in which the report is made and the number of medically underserved populations which the Secretary estimates will be designated under section 712 in the calendar year in which the report is made;

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

"(3) the number of and types of Corps personnel assigned in such preceding year to provide health services for medically underserved populations, the number and types of additional Corps personnel which the Secretary estimates will be assigned to provide such services in the calendar year in which the report is submitted, and the need (if any) for additional personnel for the Corps;

"(4) the recruitment efforts engaged in for the Corps in such preceding year, including the programs carried out under section 718 (a)(1) and the number of qualified persons who applied for service in the Corps in each professional category;

"(5) the total number of patients seen and patient visits recorded during such preceding years in each area where Corps personnel were assigned;

"(6) the number of health personnel electing to remain after termination of their service in the Corps to provide health services to medically underserved populations and the number of such personnel who do not make such election and the reasons for their departure;

"(7) the results of evaluations made under section 713(b)(2)(B)(ii), and determinations made under section 713(b)(2)(B)(iii), during such preceding year; and

"(8) the amount (A) charged during such preceding year for health services by Corps personnel, (B) collected in such year by entities in accordance with arrangements under section 716, and (C) paid to the Secretary in such year under such arrangements.

"(b) The Secretary of Health, Education, and Welfare shall report to Congress (1) not later than September 1, 1974, the criteria used by him in designating medically underserved populations for purposes of section 712 of the Public Health Service Act, and (2) not later than January 1, 1975, the identity and number of medically underserved populations in each State meeting such criteria.

"SEC. 721. (a)(1) There is established a council to be known as the National Advisory Council on the National Health Service Corps (hereinafter in this section referred to as the 'Council'). The Council shall be composed of fifteen members appointed by the Secretary as follows:

"(A) Four members shall be appointed from the general public to represent the consumers of health care, at least two of whom shall be members of a medically underserved population for which Corps personnel are providing health services under this section.

"(B) Three members shall be appointed from the medical, dental, and other health professions and health teaching professions.

"(C) Three members shall be appointed from State health or health planning agencies.

"(D) Three members shall be appointed from the Service, at least two of whom shall be members of the Corps directly engaged in the provision of health services for a medically underserved population.

"(E) One member shall be appointed from the National Advisory Council on Comprehensive Health Planning.

"(F) One member shall be appointed from the National Advisory Council on Regional Medical Programs.

The Council shall consult with, advise, and make recommendations to, the Secretary with respect to his responsibilities in carrying out this section, and shall review and approve regulations promulgated by the Secretary under this section and section 225.

"(2) Members of the Council shall be appointed for a term of three years and shall not be removed, except for cause. Members may be reappointed to the Council.

"(3) Appointed members of the Council, while attending meetings or conferences thereof or otherwise serving on the business of the Council, shall be entitled to receive for each day (including traveltime) in which they are so serving the daily equivalent of the annual rate of basic pay in effect for grade GS-18 of the General Schedule, and while so serving away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703(b) of title 5 of the United States

Code for persons in the Government service employed intermittently.

"(b) The amendment made by subsection (a) which shall change the name of the advisory council previously established under section 329 of the Public Health Service Act shall not be construed as requiring the establishment of a new advisory council; and the amendment made by such subsection with respect to the composition of such advisory council shall apply with respect to appointments made to the advisory council after the date of the enactment of this Act.

"SEC. 722. To carry out the purposes of this part, there are authorized to be appropriated such sums as may be necessary for the fiscal years ending June 30, 1975, June 30, 1976, and June 30, 1977.

"(2) An appropriation Act which appropriates funds under subsection (a) for any fiscal year ending June 30, 1975, may also appropriate for the next fiscal year the funds that are authorized to be appropriated under such paragraph for such next fiscal year; but no funds may be made available therefrom for obligation under this section before the fiscal year for which such funds are authorized to be appropriated.".

"PART C—POSTGRADUATE PHYSICIAN TRAINING

"SEC. 731. (a) There is established in the Public Health Service the National Council on Postgraduate Physician Training (hereinafter in this title referred to as the 'National Council').

"(b) The National Council shall consist of nineteen members appointed by the Secretary of Health, Education, and Welfare (hereinafter in this title referred to as the 'Secretary') without regard to the provisions of title 5 of the United States Code relating to appointments in the competitive service from persons who are not officers or employees of the United States Government as follows:

"(1) Eleven members shall be appointed from persons in the medical and osteopathic professions. Of the eleven:

"(A) six shall be practicing physicians associated with specialty and subspecialty physician (and including osteopathic) organizations, including one each from the specialties or subspecialties of family practice, internal medicine, pediatrics, obstetrics and gynecology, surgery, and psychiatry;

"(B) two shall be physicians associated with organizations associated with postgraduate physician training;

"(C) two shall be physicians associated with medical schools or university health science centers; and

"(D) one shall be a physician in postgraduate physician training.

"(2) Five members shall be appointed from persons who are nonphysician health professionals. Of the five:

"(A) two shall be individuals associated with hospitals which maintain postgraduate physician training programs;

"(B) one shall be a State or local health planner or public health administrator;

"(C) one shall be a medical student;

"(D) one shall be a nurse or other allied health professional.

"(3) Three members shall be appointed from the general public.

The members of the National Council shall select a chairman from among their own number.

"(c) Each member of the National Council shall hold office for a term of four years, except that—

"(1) any member appointed to fill a vacancy prior to the expiration of the term for which his predecessor was appointed shall hold office for the remainder of such term, and

"(2) the terms of office of the members first taking office shall expire, as designated by the Secretary at the time of appointment, three at the end of the first year, three at the end of the second year, and three at the end of the third year, and two at the end of the fourth year, after the date of appointment.

No member shall be eligible to serve continuously for more than two terms.

"(d) Members of the National Council, while attending meetings or conferences thereof, or otherwise serving on business of the National Council, shall be entitled to receive compensation at rates fixed by the Secretary, but not exceeding for any day (including traveltime) the daily equivalent of the effective rate for grade GS-18 of the General Schedule, and while so serving away from their homes or regular places of business, they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703(b) of title 5 of the United States Code for persons in the Government service employed intermittently.

"SEC. 732. (a) Upon appointment and prior to July 1, 1976, the National Council shall conduct studies and other activities relevant to the various matters related to the postgraduate training of physicians specifically including the following:

"(1) The commissioning and supervision of the investigation of physician specialty distribution in the United States and its possessions as prescribed by section 740.

"(2) The development of collaborative working relationships with each physician specialty organization to determine and assist their individual activities with respect to the number and location of practitioners within each specialty.

"(3) An assessment of the need for financial support for the postgraduate training of physicians, especially in primary care specialties.

"(4) An assessment of the service needs of hospitals and other health institutions, the role of postgraduate physician trainees in meeting such needs, and alternate means of meeting such needs.

"(5) An assessment of the educational component of postgraduate training programs for physicians.

"(6) The assessment of the impact of foreign medical graduates on the present and future health care in the United States and foreign nations.

"(b) After July 1, 1976, the National Council shall administer the program established by section 735 and carry out such other activities as may be incidental to such administration.

"SEC. 733. (a) For each of the Department of Health, Education, and Welfare regions there is established a Regional Council on Postgraduate Physician Training (hereinafter referred to in this title as the 'Regional Council'). Each Regional Council shall consist of nineteen members appointed by the Secretary without regard to the provisions of title 5 of the United States Code relating to the appointments and competitive service from persons who are not officers or employees of the United States Government as follows:

"(1) Eleven shall be appointed from persons in the medical and osteopathic professions. Of the eleven:

"(A) six shall be practicing physicians including one each from the specialties or subspecialties of family practice, internal medicine, pediatrics, obstetrics and gynecology, surgery, and psychiatry;

"(B) two shall be physicians associated with hospitals which maintain postgraduate physician training programs;

"(C) two shall be physicians associated with medical schools or university health science centers; and

"(D) one shall be a physician in postgraduate physician training.

"(2) Five members shall be appointed from persons who are nonphysician health professionals. Of the five:

"(A) two shall be individuals associated with hospitals which maintain postgraduate physician training programs;

"(B) one shall be a State or local health planner or public health administrator;

"(C) one shall be a medical student; and

"(D) one shall be a nurse or other allied health professional.

"(3) Three members shall be appointed from the general public.

The members of each regional council shall select a chairman from among their own number.

"(b) Each member of a regional council shall hold office for a term of four years, except that—

"(1) any member appointed to fill a vacancy prior to the expiration of the term for which his predecessor was appointed shall hold office for the remainder of such term, and

"(2) the terms of office of the members first taking office shall expire, as designated by the Secretary at the time of appointment, three at the end of the first year, three at the end of the second year, and three at the end of the third year, and two at the end of the fourth year, after the date of appointment.

No member shall be eligible to serve continuously for more than two terms.

"(c) Members of a regional council, while attending meetings or conferences thereof, or otherwise serving on business of a regional council, shall be entitled to receive compensation at rates fixed by the Secretary, but not exceeding for any day (including traveltime) the daily equivalent of the effective rate for grade GS-18 of the General Schedule, and while so serving away from their homes or regular places of business, they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703(b) of title 5 of the United States Code for persons in the Government service employed intermittently.

"(d) All members of a regional council shall be residents, and fully employed to the extent of their employment, within the region served by the regional council.

"SEC. 734. (a) Upon appointment, and prior to July 1, 1976, each regional council shall conduct studies and other activities relevant to the various matters related to the postgraduate training of physicians within the region served by the regional council, specifically including the following:

"(1) A survey of the institutions providing post-graduate training of physicians within the region, including an analysis of the types of training currently provided, as well as the types of training that might be provided by such institutions.

"(2) An assessment of the service needs of hospitals and other health institutions within the region, including an assessment of the role that postgraduate physician trainees play in meeting such needs and alternative means of meeting such needs.

"(3) An assessment of the educational component of the postgraduate training programs for physicians conducted within the region.

"(4) An assessment of the status of the financial support of the postgraduate training of physicians within the region, especially of primary care training programs.

"(5) Development of collaborative working relationships with regional medical programs, comprehensive health planning programs, State departments of health, and area health education system programs operating within the region.

"(b) After July 1, 1976, each regional council shall administer the program established by section 736 and carry out such other activities as may be incidental to such administration.

"SEC. 735. (a) On July 1, 1976, and not later than July 1 of each year thereafter, the National Council shall conduct a certification program as follows:

"(1) Establish the total number of post-

graduate physician training positions to be certified for the year beginning on the next following July 1. Such certified positions shall not exceed 110 per centum of the number of doctor of medicine and doctor of osteopathy degrees expected to be granted in the intervening year in the United States.

"(2) Assign the total number of certified positions so established, to the various categories of specialty and subspecialty practice of medicine recognized within the United States. In assigning positions to the various categories of specialty and subspecialty practice of medicine, the National Council shall take into consideration the findings of the study conducted pursuant to section 740.

"(3) Assign from the certified positions so established in each physician specialty and subspecialty certified positions to each of the ten regional councils.

"(b) The National Council shall on October 1, 1976, and October 1 of each subsequent year directly certify positions in entities, and associations of such entities, which directly provide postgraduate training of physicians in those physician specialties and subspecialties in which sufficient numbers of physicians are not needed nationally to permit a proper distribution of such positions to the regional councils. Such positions shall not, in any year of the program, exceed 10 per centum of the total number of certified positions for such year. On or before August 1, 1976, and August 1 of each subsequent year the National Council shall inform the respective regional council of all positions proposed to be directly certified within such region. No position may be directly certified by the National Council if the respective regional council disapproves such position within thirty days of notification by the National Council of such proposed certification.

"SEC. 736. (a) Each regional council shall, not later than October 1, 1976, and October 1 of each subsequent year, certify postgraduate training positions in entities, and associations of such entities, which directly provide such training within the region served by the regional council. In certifying such positions, the regional council shall not certify any position—

"(1) in any physician specialty or subspecialty in excess of the number of certified positions in such specialty or subspecialty assigned to the regional council by the National Council under section 735(a)(3).

"(2) in any entity, or association of such entities, which has, or will have, in the aggregate, fewer than one hundred and fifty such certified positions;

"(3) in any entity which maintains any postgraduate physician training position, or any association of entities in which any participating entity maintains any such position, which is not certified by the regional council as a graduate training position for physicians; or

"(4) which is not a part of, at a minimum, an integrated three-year postgraduate physician training program.

"(b) In certifying positions, each regional council shall—

"(1) to the extent feasible, insure that the certified positions are equitably distributed geographically within the region served by the regional council;

"(2) insure that the educational component of each training program meets acceptable standards; and

"(3) give special consideration to certifying positions associated with, as an integrated part, an area health education system, as defined by regulations of the Secretary under section 751 of this Act.

"SEC. 737. In carrying out the provisions of sections 732(a)(5), 734(a)(3) and 736(b)(2) relating to the educational component of postgraduate physician training, the National Council and each regional council shall coordinate its activities with the Liaison Committee on Graduate Medical Education.

"SEC. 738. (a) The Secretary shall make grants to, and contract with, entities which directly provide, or associations of such entities which directly provide, or have the capacity to provide directly, postgraduate training of physicians and which are certified to the Secretary by the National Council and a regional council as likely to receive an increased number of certified postgraduate positions subsequent to July 1, 1977, to allow such entities to develop new, and expand existing, postgraduate physician training programs.

"(b) In the awarding of grants, the Secretary shall give special priority to (1) programs to train primary medical, especially family practice, physicians and (2) programs, especially programs described in clause (1), in regions with a relative shortage of physicians.

"(c) No entity may receive—

"(1) a grant or contract for more than $100,000 for the establishment, or the expansion of an existing program in the training of physicians in any particular specialty or subspecialty area, in any fiscal year.

"(2) a grant or contract for more than two consecutive years for the establishment, or the expansion of an existing program, for the training of physicians in any particular specialty or subspeciality area.

"(d) For each of the fiscal years ending June 30, 1975, June 30, 1976, and June 30, 1977, there are authorized to be appropriated such sums as may be necessary to carry out the provisions of this section.

"SEC. 739. (a) The Secretary shall make grants to entities which—

"(1) directly provided postgraduate training of physicians on July 1, 1977; and

"(2) because of the operation of this part, are able to obtain a decreased number of postgraduate physician trainees following July 1, 1977; and

"(3) have a plan to utilize such funds to initiate the provision of services, previously provided by physicians in postgraduate training, by other health professionals and personnel, especially nurse clinicians.

The Secretary shall pay to such entities $10,000 for each individual position decrease in the first year following such decrease and $5,000 for each position decrease in the second year following such decrease.

"(b) For each of the fiscal years ending June 30, 1978, June 30, 1979, and June 30, 1980, there are authorized to be appropriated such sums as may be necessary to carry out the provisions of this section.

"SEC. 740. (a) The Secretary shall, within ninety days of the appointment of the National Council, contract, with the approval of the National Council as provided in subsection (b), for the conduct of a study to:

"(1) Analyze the current distribution of physicians by speciality. The geographical distribution of medical and osteopathic physicians by speciality and subspeciality and by geographic area shall be determined. Physicians specialities and subspecialities shall be defined in a manner consistent with recognized categories; geographic areas shall be defined as a reasonable medical trade area for each speciality or subspeciality; special attention shall be given to determining the percent of time physicians in each speciality and subspeciality spent in primary care activities.

"(2) Project the expected distribution of physicians by speciality and subspeciality by geographic area in the years 1980, 1985, and 1990. Such projection shall be based on current trends in physician speciality training and choice of practice sites, the activities of various speciality boards and other organizations, and the retirement-death rate of physicians by speciality and subspeciality.

"(3) Examine and critically evaluate the various methodologies for estimating the optimal distribution of physicians by speciality and subspeciality by geographic area. Methodologies examined and evaluated shall include methodologies utilized by foreign countries.

"(4) Develop a reliable and appropriate methodology to establish the optimal distribution of physicians by speciality and subspeciality by geographic area. Utilizing such methodology, projections shall be made for the optimal number of physicians by speciality and subspeciality by geographic area for the years 1980, 1985, and 1990.

"(b) The National Council shall approve the organization selected by the Secretary to conduct the study required by subsection (a). Such organization shall—

"(1) have a national reputation for objectivity in the conduct of studies for the Federal Government;

"(2) have the capacity to readily marshal the widest possible range of expertise and advice relevent to the conduct of such studies;

"(3) have a membership and competent staff which have backgrounds in government, the health sciences, and the social sciences;

"(4) have a history of interest and activity in health policy issues related to such studies; and

"(5) have extensive existing contracts with interested public and private agencies and organizations.

"(c) An interim report providing a plan for the study required by subsection (a) shall be submitted by the organization conducting the study to the Committee on Interstate and Foreign Commerce of the House of Representatives and the Committee on Labor and Public Welfare of the Senate by January 31, 1975; and a final report giving the results of the study shall be submitted by such organization to the Committee on Interstate and Foreign Commerce of the House of Representatives and the Committee on Labor and Public Welfare of the Senate by January 31, 1976.

"(d) There is authorized to be appropriated $10,000,000, which shall be available without fiscal year limitations, for the conduct of the study required by subsection (a).

"SEC. 740A. No entity which is engaged in business in interstate commerce as a health insurer and which receives an annual gross income from the provision of health insurance of not less than $1,000,000 may reimburse or otherwise pay an individual or institution an amount resulting from expenses associated with the postgraduate training of physicians after July 1, 1977, unless such training has been certified by the National Council and, except for positions certified under section 735(b), the appropriate regional council. Any entity which makes a reimbursement or other payment prohibited by this section shall for each such reimbursement or other payment be subject to a civil penalty of not more than $5,000. Such penalty shall be assessed by the Secretary and may be collected in a civil action brought by the United States in a United States district court under section 1355 of title 28, United States Code. No State may establish or enforce any law which would require as a condition of doing business in such State that an entity described in this section make reimbursements or other payments prohibited by this section.

PART D—SPECIAL PROJECT GRANTS

SEC. 741. (a) The Secretary may make grants to public and other nonprofit private schools of podiatry and other public or nonprofit private agencies, organizations and institutions to meet the costs of projects to assist in—

(1) mergers between podiatric training programs and medical, osteopathic, and other

health professions training programs and academic institutions, or

(2) other cooperative arrangements among podiatric training programs and medical, osteopathic, and other health professions training programs and academic institutions.

(b) There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this section for the fiscal years ending June 30, 1975, June 30, 1976, and June 30, 1977.

SEC. 742. (a) The Secretary may make grants to public and other nonprofit private schools of nursing, pharmacy, public health, and health administration and other public or nonprofit private agencies, organizations, and institutions to meet the costs of projects to develop and expand graduate degree level training programs for—

(1) clinical nursing personnel, including programs for the training of pediatric nurse practitioners, nurse midwives, and other types of nurse practitioners;

(2) clinical pharmacy personnel; and

(3) community and public health personnel and health administrators.

(b) there are authorized to be appropriated such sums as may be necessary to carry out the provisions of this section for the fiscal years ending June 30. 1975, June 30, 1976, and June 30, 1977.

SEC. 743. (a) The Secretary may make grants to public and other nonprofit private undergraduate (including baccalaureate, diploma, and associate degree granting) schools of nursing, pharmacy, and allied health and other public or nonprofit private agencies, organizations and institutions to meet the costs of projects to—

(1) Assist in increasing the supply, or improve the distribution of, adequately trained health personnel;

(2) Effect significant improvements in the curriculum of such schools;

(3) Plan, develop or establish new programs or modifications of existing programs of health personnel education;

(4) Increase educational opportunity for disadvantaged students; and

(5) Otherwise strengthen, improve or expand programs to train health personnel.

(b) In making grants under this section, the Secretary shall give priority to applications from entities whose application for such grant has been approved by an area health education system (as defined in regulations under Section 751) serving a health education area in which the applicant is located.

(c) There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this section for the fiscal years ending June 30, 1975, June 30, 1976 and June 30, 1977.

PART E—Area Health Education Systems

SEC. 751. For purposes of this title:

(a) The term "area health education system" means a public or nonprofit entity which—

(1) Evaluates, on an on-going basis:

(A) the health education needs of the residents of the health education area; and

(B) the effectiveness of the health education programs operated by the area health education system, entities associated with the area health education system, and other entities within the health education area, in meeting the health education needs of the residents of the area.

(2) Provides directly, and coordinates the provision by other entities, of health education services to the residents of the health education area including, at a minimum:

(A) The training of nurses and other allied health personnel;

(B) The postgraduate training of physicians in, at the minimum, primary care specialties;

(C) Continuing education for practicing physicians and continuing education and in-service training for nurses and other health professions;

(D) Counseling with respect to careers in medicine, nursing, and other health professions at secondary schools and community colleges; and

(E) The provision to the general population of education about:

(i) the appropriate use of health services; and

(ii) the contribution each individual can make to the maintenance of his own health.

(3) Has contracts or other formal working arrangements, with, at the minimum:

(A) A university health education center;

(B) State colleges, community colleges, and private universities and colleges, which provide education in the health professions, nursing, and the allied professions;

(C) Hospitals and other health delivery entities which provide health services or and which operate health education training programs;

(D) State and community public health agencies which provide community health education to the general population;

(E) Voluntary health agencies and organizations which provide health education to the general population;

(F) State and local health services planning agencies, including agencies established pursuant to section 314(b) and title IX of this Act; and

(G) Professional standards review organizations established pursuant to section 1152 of the Social Security Act.

(4) Has a governing board, the members of which shall include residents of the health education area who are:

(A) Individuals who are associated with institutions and organizations from the educational field;

(B) Individuals who are associated with institutions, organizations, or are themselves involved with the provision of health care services;

(C) Individuals who are associated with appropriate State and local health services planning agencies, including agencies established pursuant to section 314(b) and title IX of this Act;

(D) Individuals who are associated with county and municipal governments; and

(E) Individuals who are not providers of health care services and who are broadly representative of the various economic, socio, racial, and geographic population groups of such health education area.

(b) The term "health education area" means a geographic area designated by the Secretary. Such area shall:

(1) Be a rational area for the planning and coordination of health education;

(2) To the extent practical, include at least one university health science center; and

(3) Follow the boundaries of one or more areas established pursuant to section 314(b) of this Act.

"SEC. 752. (a) The Secretary may make grants, subject to the provisions of Section 751, to public or private nonprofit entities, to assist in projects for planning, developing, and opreating health area education systems. No project may receive more than $500,000 in grants in any fiscal year under this section.

"(b) The Secretary shall make grants under this section only to entities whose application for such grant has been approved by each agency established pursuant to section 314(b) and title IX operating in such area.

"(c) There are authorized to be appropriated such sums as may be necessary to carry out the provisions of section 751 in the fiscal years ending June 30, 1975, June 30, 1976, and June 30, 1977.

"PART F—LOAN GUARANTEES AND INTEREST SUBSIDIES

"SEC. 761. (a) In order to assist students in accredited (as determined by regulations of the Secretary) schools to pursue an approved course of study leading to a baccalaureate, associate, diploma, or other undergraduate degree in nursing, pharmacy, or the allied health professions (as determined by regulations of the Secretary) to meet the cost of tuition and living expenses, books, equipment, and other necessary education expenses, the Secretary, during the period beginning July 1, 1974, and ending with the close of June 30, 1977, may, in accordance with the provisions of this section, and subject to the general provisions of this Act—

"(1) guarantee to non-Federal lenders making loans to such individuals for such purposes, payment of principal of and interest on such loans which are approved under this section, and

"(2) pay to the holder of such loans (and for and on behalf of the organization which received such loan) amounts sufficient to reduce, but not to exceed, 3 per centum per annum the net effective interest rate otherwise payable on such loan. No loan guarantee or interest subsidy under this section may, except under such special circumstances and under such conditions as are prescribed by regulations, apply to or be made for an amount which, when added to any grant or other loan under this or any other law of the United States, is in excess of $5,000 for any student in any academic year.

"(b) The Secretary may not approve the application of a student unless—

"(1) he determines, in the case of a loan for which a guarantee or an interest subsidy payment is sought, that the terms, conditions, maturity, security (if any), and schedule and amounts of repayments with respect to the loan are sufficient to protect the financial interests of the United States and are otherwise reasonable and in accord with regulations, including a determination that the rate of interest does not exceed such per centum per annum on the principal obligation outstanding as the Secretary determines to be reasonable, taking into account the range of interest rates prevailing in the private market for similar loans and the risks assumed by the United States;

"(2) the term of a loan for which a guarantee and interest subsidy is sought does not exceed five years, or such shorter period as the Secretary prescribes; and

"(3) he obtains assurances that the applicant will keep such records, and afford such access thereto, and make such reports, in such form and containing such information, as the Secretary may reasonably require.

"(c) Guarantees of loans and interest subsidy payments under this section shall be subject to such further terms and conditions as the Secretary determines to be necessary to assure that the purposes of this section will be achieved, and, to the extent permitted by subsection (e), any of such terms and conditions may be modified by the Secretary to the extent he determines it to be consistent with the financial interests of the United States.

"(d) In the case of any loan guaranteed under this section, the United States shall be entitled to recover from the applicant the amount of any payments made pursuant to such guarantee unless the Secretary, for good cause, waives his right of recovery, and, upon making any such payment, the United States shall be subrogated to all of the rights of the recipient of the payments with respect to which the guarantee was made.

"(e) Any guarantee of a loan under this section shall be incontestable in the hands of an applicant on whose behalf such guarantee is made, and as to any person who makes or contracts to make a loan to such applicant in reliance thereon, except for fraud or misrepresentation on the part of such applicant or such other person.

"(f) The cumulative total of the principal

of the loans outstanding at any time with respect to which guarantees have been issued, or which have been directly made, under this section may not exceed such limitations as may be specified in appropriation Acts.

"(g) (1) There is established in the Treasury a health service manpower loan guarantee fund (hereafter in this section referred to as the 'fund') which shall be available to the Secretary without fiscal year in such amounts as may be specified from time to time in appropriation Acts.

"(A) to enable him to discharge his responsibilities under guarantees issued by him under this section, and

"(B) to make interest subsidy payments on such loan.

There are authorized to be appropriated to the fund from time to time such amounts as may be required for the fund. To the extent authorized from time to time in appropriation Acts there shall be deposited in the fund amounts received by the Secretary as interest payments or repayments of principal on loans and any other moneys, property, or assets derived by him from his operations under this section, including any moneys derived from the sale of assets.

"(2) If at any time the moneys in the fund are insufficient to enable the Secretary to discharge his responsibilities under this section to meet the obligations under guarantees of loans under subsection (a) or to make interest subsidy payments on such loans, he is authorized to issue to the Secretary of the Treasury notes or other obligations in such forms and denominations, bearing such maturities, and subject to such terms and conditions, as may be prescribed by the Secretary with the approval of the Secretary of the Treasury. Such notes or other obligations shall bear interest at a rate determined by the Secretary of the Treasury, taking into consideration the current average market yield on outstanding marketable obligations of the United States of comparable maturities during the month preceding the issuance of the notes or other obligations. The Secretary of the Treasury is authorized and directed to purchase any notes and other obligations issued hereunder and for that purpose he is authorized to use as a public debt transaction the proceeds from the sale of any securities issued under the Second Liberty Bond Act and the purposes for which securities may be issued under that Act are extended to include any purchase of such notes and obligations. The Secretary of the Treasury may at any time sell any of the notes or other obligations acquired by him under this subsection. All redemptions, purchases, and sales by the Secretary of the Treasury of such notes or other obligations shall be treated as public debt transactions of the United States. Sums borrowed under this subsection shall be deposited in the fund and redemption of such notes and obligations shall be made by the Secretary from such fund."

TITLE II—MISCELLANEOUS REPEALS

SEC. 3. Sections 225, 306, 309, and 329 and titles VII and VIII of the Public Health Service Act are repealed effective July 1, 1974.

THE HIGH PRICE OF FOREIGN AID

(Mr. ROUSH asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. ROUSH. Mr. Speaker, the President's foreign aid program carries a high price tag to pay for policies the Congress has been told very little about and the American people probably do not want.

The total request of $5.18 billion, which the President considers a "minimum" for maintaining international equilibrium, is a large amount to ask people to pay on top of the news that we have had an 11-percent cost-of-living increase over a 3-month period. According to the Cost-of-Living Director we can expect more of the same in the months just ahead.

So the American people are asked to pour billions into other countries to buy them the peace and prosperity the President thinks is necessary for international harmony and our security. What about our peace and prosperity at home? We cannot even afford the antidepression tax reduction proposed by a number of economists because our new Secretary of the Treasury-designate tells us it is not good economics. But it is good economics evidently to invest in prosperity abroad.

Besides the total amount, which is only $1 billion less than the whole budget proposal for Federal aid to education, I also question the program initiatives and where they are taking us.

Our interest in the Middle East, financially and politically, is rapidly matching that of Southeast Asia and they are both turbulent areas. The dollar requests for each indicate the extent of our commitment. At a cost of $907.5 million we plan to pay Egypt not to fight, help Israel to defend herself, and reward Jordan for acting as a mediator in that part of the world. Meanwhile, we are undertaking to clean up the Suez Canal with some of these funds, which seems strange, since the Congress was just recently asked for money to expand the U.S. facility at Diego Garcia in light of the increased Russian presence to be expected in the Indian Ocean that will come with the opening of the Canal. We seem to be working at cross purposes.

For Indochina, South Vietnam, Laos, and Cambodia the amount requested is $939.8 million. I am sure that is a minimum, too. The President says it is an "austere" request. Our own health budget might be categorized as austere but not this request. The money is for a number of purposes, significantly to "shift their economies from war to peace and to accelerate the reconstitution of their societies." I did not know that fighting had ended in Indochina, especially since we are spending heavily on military assistance there. Funds to reconstitute societies still engaged in warfare seems premature. But the rationale obviously is that we have already invested heavily in these countries and rather than admit that the success we are nearing may not be forthcoming we will throw in more dollars.

I might add that I have never supported foreign aid. At times I have found some of the arguments tempting. This year I do not even find that the case.

The President warns us that we must not succumb to the temptation to "turn inward." I think it is time that we did so. We have a number of programs at home that are not working or are not working at full speed. I think particularly of the Water Pollution Control Act of 1972 which the Congress passed with such enthusiasm and which has not been implemented with any degree of fervor. I think of our housing program which does not qualify as a program anymore. I think of our need to do something about a responsible and respectable health insurance system for the American people. I think about our need to get inflation under control, to cut back unemployment. It is time we emphasized solutions to our own problems.

LEAVE OF ABSENCE

By unanimous consent, leave of absence was granted as follows to:

Mr. YOUNG of Alaska (at the request of Mr. RHODES), from 3:30 today, on account of official business.

Mr. HORTON (at the request of Mr. RHODES), for today, on account of official business.

Mr. JONES of North Carolina (at the request of Mr. O'NEILL), after 4 p.m. today, 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:

(The following Members (at the request of Mr. MCCOLLISTER), to revise and extend their remarks, and to include extraneous matter to:)

Mr. WIDNALL, for 5 minutes, today.

Mr. HOGAN, for 10 minutes, today.

Mrs. HECKLER of Massachusetts for 30 minutes, today.

Mr. CRONIN, for 10 minutes, today.

Mr. YOUNG of Illinois for 3 minutes, today.

(The following Members (at the request of Mrs. BOGGS) to revise and extend their remarks and include extraneous material:)

Mr. O'NEILL, for 10 minutes today.

Mr. GONZALEZ, for 5 minutes, today.

Mr. ANNUNZIO, for 5 minutes, today.

Mr. ADAMS, for 30 minutes, today.

Mr. CORMAN, for 5 minutes, today.

Mr. FULTON, for 5 minutes, today.

Ms. HOLTZMAN, for 15 minutes, today.

Mr. VAN DEERLIN, for 5 minutes, today.

Mr. RANGEL, for 5 minutes, today.

Mr. EILBERG, for 5 minutes, today.

Mr. ROY, for 5 minutes, today.

Mr. YATRON, for 5 minutes, today.

Mr. BADILLO, for 15 minutes, April 30, 1974.

EXTENSION OF REMARKS

By unanimous consent, permission to revise and extend remarks was granted to:

Mr. GOLDWATER, and to include extraneous material, following the remarks of Mr. WYDLER during discussion of the SST funding in the Committee of the Whole today on H.R. 13998.

Mr. ROY, to extend his remarks in the body of the RECORD and to include extraneous matter notwithstanding the fact that it exceeds two pages of the CONGRESSIONAL RECORD and is estimated by the Public Printer to cost $2,664.75.

Mr. HUNGATE, to follow the remarks of the gentleman from New York, Mr. RONCALLO, on H.R. 13999, in the Committee of the Whole today.

Mr. REES.

(The following Members (at the re-

quest of Mr. McCOLLISTER) and to include extraneous matter:)

Mr. TOWELL of Nevada.
Mr. GOLDWATER in two instances.
Mr. WYMAN in two instances.
Mr. COHEN.
Mr. HUBER in two instances.
Mr. MATHIAS of California.
Mr. KETCHUM.
Mr. BROYHILL of Virginia.
Mr. DERWINSKI in three instances.
Mr. ASHBROOK in two instances.
Mr. MIZELL in three instances.
Mr. MARAZITI.
Mr. HOGAN.
Mr. SYMMS.
Mr. WHITEHURST.
Mr. SHRIVER.
Mr. HOSMER in four instances.
Mr. GILMAN in two instances.
Mr. BOB WILSON.

(The following Members (at the request of Mrs. BOGGS) and to include extraneous material:)

Mr. CHARLES H. WILSON of California.
Mr. ST GERMAIN.
Mr. RARICK in three instances.
Mr. GONZALEZ in three instances.
Mr. BRINKLEY in two instances.
Mr. YOUNG of Georgia in six instances.
Mr. LUKEN.
Mr. EDWARDS of California.
Mr. MURPHY of Illinois.
Mrs. MINK.
Mr. HARRINGTON in two instances.
Mr. GUNTER.
Mr. UDALL in six instances.
Mr. NIX.
Mr. MACDONALD.
Mr. JONES of Tennessee.
Mr. ROGERS in five instances.
Mr. TIERNAN.
Mr. HAMILTON.
Mr. KOCH.
Mr. LEGGETT.
Mrs. SULLIVAN.
Mr. GAYDOS in 10 instances.
Mr. REID.
Mr. TAYLOR of North Carolina.
Mr. REES.
Mr. MEEDS.
Mr. BENNETT.
Mr. RANGEL in 10 instances.
Mr. DONOHUE.

SENATE ENROLLED BILLS SIGNED

The SPEAKER announced his signature to enrolled bills of the Senate of the following titles.

S. 2771. An act to amend chapter 5 of title 37, United States Code, to revise the special pay bonus structure relating to members of the Armed Forces, and for other purposes; and

S. 3292. An act to authorize appropriations to the Atomic Energy Commission in accordance with section 261 of the Atomic Energy Act of 1954, as amended, and for other purposes.

ADJOURNMENT

Mrs. BOGGS. Mr. Speaker, I move that the House do now adjourn.

The motion was agreed to; accordingly (at 5 o'clock and 19 minutes p.m.), under its previous order, the House adjourned until Monday, April 29, 1974, 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:

2235. A letter from the Secretary of Transportation, transmitting a report on negotiated contracts for experimental, developmental, test or research work, and industrial mobilization in the interest of the national defense, covering the period October 1973 through March 1974, pursuant to 10 U.S.C. 2304(e); to the Committee on Armed Services.

2233. A letter from the Assistant Secretary of State for Congressional Relations, transmitting a copy of Presidential Determination No 74–17 that it is in the national interest that Israel receive assistance under the Emergency Security Assistance Act of 1973 exceeding $1,500 million and under title IV of the Foreign Assistance and Related Programs Appropriation Act, 1974, exceeding $1,700 million, pursuant to section 2 of Public Law 93–199 and title IV of Public Law 93–240; to the Committee on Foreign Affairs.

2237. A letter from the Assistant Secretary of State for Congressional Relations, transmitting reports on political contributions made by Ambassadors-designate Rodger P. Davies, Stanton D. Anderson, and Michael Sterner, and their families, pursuant to section 6 of Public Law 93–126; to the Committee on Foreign Affairs.

2238. A letter from the Assistant Legal Adviser for Treaty Affairs, Department of State, transmitting copies of international agreements other than treaties, entered into by the United States, pursuant to Public Law 92–403; to the Committee on Foreign Affairs.

2239. A letter from the Administrator of General Services, transmitting a prospectus proposing acquisition of the leasehold interest in a three-level basement parking garage located in the Nassif Building at 400 7th Street, Southwest, Washington, D.C.; to the Committee on Public Works.

2240. A letter from the Federal Home Loan Bank Board, transmitting the annual report of the Board for calendar year 1973, covering the operations of the Federal Home Loan Bank System, the Federal Savings and Loan Insurance Corporation, and the Federal Savings and Loan System, pursuant to 12 U.S.C. 1437; to the Committee on Banking and Currency.

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:

Miss JORDAN: Committee on the Judiciary. H.R. 2208. A bill for the relief of Raymond W. Suchy, second lieutenant, U.S. Army (retired); with amendment (Rept. No. 93–1004). Referred to the Committee of the Whole House.

Mr. MANN: Committee on the Judiciary. H.R. 3532. A bill for the relief of Donald L. Tyndall, Bruce Edward Tyndall, Kimberly Fay Tyndall, Lisa Michele Tyndall, and the estate of Elizabeth M. Tyndall, deceased; with amendment (Rept. No. 93–1005). Referred to the Committee of the Whole House.

Mr. FROEHLICH: Committee on the Judiciary. H.R. 7768. A bill for the relief of Nolan Sharp; with amendment (Rept. No. 93–1006). Referred to the Committee of the Whole House.

Mr. FROEHLICH: Committee on the Judiciary. S. 724. An act for the relief of Marcos Rojos Rodriguez; with amendment (Rept. No. 93–1007). Referred to the Committee of the Whole House

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. THOMPSON of New Jersey: Committee on House Administration. House Resolution 768. Resolution to provide funds for expenses incurred by the Select Committee on the House Restaurant (Rept. No. 93–1008). Referred to the House Calendar.

Mr. THOMPSON of New Jersey: Committee on House Administration. House Resolution 1027. Resolution to provide funds for the Committee on the Judiciary (Rept. No. 93–1009). Referred to the House Calendar.

Mr. MAHON: Committee on Appropriations. H.R. 14434. A bill making appropriations for energy research and development activities of certain departments, independent executive agencies, bureaus, offices, and commissions for the fiscal year ending June 30, 1975, and for other purposes (Rept. No. 93–1010). Referred to the Committee of the Whole House on the State of the Union.

Mr. YOUNG of Texas: Committee on Rules. House Resolution 1071. Resolution waiving certain points against H.R. 14434. A bill making appropriations for energy research and development activities of certain departments, independent executive agencies, bureaus, offices, and commissions for the fiscal year ending June 30, 1975, and for other purposes (Rept. No. 93–1011). Referred to the House Calendar.

Mr. HOLIFIELD: Committee on Government Operations. House Report No. 93–1012. Control of pollution from animal feedlots and reuse of animal wastes (Rept. No. 93–1012). Referred to the Committee of the Whole House on the State of the Union.

PUBLIC BILLS AND RESOLUTIONS

Under clause 4 of rule XXII, public bills and resolutions were introduced and severally referred as follows:

By Mr. WIDNALL:

H.R. 14387. A bill to provide income tax incentives for the modification of certain facilities so as to remove architectural and transportational barriers to the handicapped and elderly; to the Committee on Ways and Means.

By Mr. ADAMS:

H.R. 14388. A bill to amend chapters 2 and 21 of the Internal Revenue Code of 1954 and title II of the Social Security Act to reduce by one-third the rates of the taxes imposed on employees and self-employed individuals for purposes of the old-age, survivors, and disability insurance program, with a corresponding increase in the amount appropriated to the social security trust funds from general revenues for such purposes; to the Committee on Ways and Means.

H.R. 14389. A bill to amend the Internal Revenue Code of 1954 to raise needed additional revenues by increasing the amount of minimum tax imposed on tax preferences; to the Committee on Ways and Means.

H.R. 14390. A bill to amend the Internal Revenue Code of 1954 to raise needed additional revenues by repealing certain provisions relating to the allowance for depreciation; to the Committee on Ways and Means.

H.R. 14391. A bill to amend the Internal Revenue Code of 1954 to terminate the percentage depletion method of computing the depletion deduction for oil and gas wells and oil shale, to deny the deduction of intangible drilling and development costs, and to deny a foreign tax credit with respect to the income derived from any such well; to the Committee on Ways and Means.

By Mr. ANDREWS of North Carolina:

H.R. 14392. A bill to amend the Internal Revenue Code of 1954 to exclude from gross income the amount of certain cancellations of indebtedness under student loan programs; to the Committee on Ways and Means.

By Mr. BROOKS:

H.R. 14393. A bill to amend the National Flood Insurance Act of 1968 to continue the present federally subsidized flood insurance program in any locality where construction of an adequate flood protection system has begun, and to eliminate the compulsory features added to such program by the Flood Disaster Protection Act of 1973; to the Committee on Banking and Currency.

By Mr. CARNEY of Ohio:

H.R. 14394. A bill to amend section 410 of the Federal Aviation Act of 1958 to provide financial assistance during the energy crisis to U.S. air carriers engaged in overseas and foreign air transportation; to the Committee on Interstate and Foreign Commerce.

H.R. 14395. A bill to amend title 39, United States Code, to provide that the postmark on mail matter shall disclose the name of the city or community in which the mail matter is actually mailed, the assigned zip code, and the date and time of mailing, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. CLARK:

H.R. 14396. A bill to amend chapter 81 of subpart G of title 5, United States Code, relating to compensation for work injuries, and for other purposes; to the Committee on Education and Labor.

H.R. 14397. A bill to amend title 39, United States Code. to eliminate certain restrictions on the rights of officers and employees of the U.S. Postal Service, and for other purposes; to the Committee on Post Office and Civil Service.

H.R. 14398. A bill to amend the age and service requirements for immediate retirement under subchapter III of chapter 83 of title 5, United States Code, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. CRANE:

H.R. 14399. A bill to amend the Par Value Modification Act; to the Committee on Banking and Currency.

By Mr. FRASER:

H.R. 14400. A bill to authorize the District of Columbia Council to provide for an increase in compensation for teachers and others in the District of Columbia, and for other purposes; to the Committee on the District of Columbia.

By Mr. HÉBERT:

H.R. 14401. A bill to authorize military band recordings in support of the American Revolution Bicentennial; to the Committee on Armed Services.

By Mr. HÉBERT (for himself and Mr. BRAY) (by request):

H.R. 14402. A bill to amend the act of September 26, 1966, Public Law 89-606, as amended, to extend for 2 years the period during which the authorized numbers for the grades of lieutenant colonel and colonel in the Air Force are increased; to the Committee on Armed Services.

By Mr. LONG of Louisiana:

H.R. 14403. A bill to amend title 18 of the United States Code to require that each reprint of certain material from the CONGRESSIONAL RECORD shall bear a notation that it is a reprint from the CONGRESSIONAL RECORD; to the Committee on the Judiciary.

By Mr. LUKEN:

H.R. 14404. A bill to regulate commerce and amend the Natural Gas Act so as to provide increased supplies of natural gas, oil, and related products at reasonable prices to the consumer, and for other purposes; to the Committee on Interstate and Foreign Commerce.

By Mr. McDADE:

H.R. 14405. A bill to establish a national program for the employment of Vietnam-era veterans within the Federal Government; to the Committee on Post Office and Civil Service.

By Mr. MATHIS of Georgia:

H.R. 14406. A bill to provide for the establishment of an American folklife center in the Library of Congress, and for other purposes; to the Committee on House Administration.

By Mr. NIX:

H.R. 14407. A bill to provide assistance and full-time employment to persons who are unemployed or underemployed as a result of the energy crisis; to the Committee on Education and Labor.

By Mr. PRICE of Illinois (by request):

H.R. 14408. A bill to amend the Atomic Energy Act of 1954, as amended, to revise the method of providing for public remuneration in the event of a nuclear incident, and for other purposes; to the Joint Committee on Atomic Energy.

By Mr. ROY:

H.R. 14409. A bill to amend the Public Health Service Act to assure the development of effective, National, State, and area health services planning, development, and regulation programs, and for other purposes; to the Committee on Interstate and Foreign Commerce.

H.R. 14410. A bill to amend title 38 of the United States Code to provide service pension to certain veterans of World War I and pension to the widows of such veterans; to the Committee on Veterans' Affairs.

By Mr. ROYBAL:

H.R. 14411. A bill to amend title 38 of the United States Code to increase to 16 cents per mile the mileage allowance payable to persons visiting Veterans' Administration medical and other facilities; to the Committee on Veterans' Affairs.

By Mrs. SCHROEDER (for herself and Ms. ABZUG):

H.R. 14412. A bill to amend the Internal Revenue Code of 1964 to provide for an increase in the amount of the personal exemption for taxable years beginning after December 31, 1973; to the Committee on Ways and Means.

By Mr. STARK:

H.R. 14413. A bill to amend the Bretton Woods Agreements Act to establish the National Advisory Council on International Monetary and Financial Policies, and for other purposes; to the Committee on Banking and Currency.

By Mr. STEIGER of Wisconsin:

H.R. 14414. A bill to amend section 210 of the Federal Property and Administrative Services Act of 1949 by repealing the authority of the Administrator of General Services and of certain executive agencies to charge as an occupant of a Federal building for the use of such building; to the Committee on Government Operations.

By Mr. WALSH:

H.R. 14415. A bill to amend the Railroad Retirement Act of 1937 to eliminate the existing prohibition against payment of an annuity to an individual who continues to work (or returns to work) for his last nonrailroad employer; to the Committee on Interstate and Foreign Commerce.

H.R. 14416. A bill to establish a 90-day period during which Vietnam-era veterans currently barred from applying for service disabled veterans' insurance by reason of lapse of time may apply for such insurance; to the Committee on Veterans' Affairs.

H.R. 14417. A bill to amend the Internal Revenue Code of 1954 to revise the conditions necessary to obtain a moving expense deduction; to the Committee on Ways and Means.

By Ms. ABZUG (for herself, Mr. RANGEL, Mr. HANLEY, and Mr. STRATTON):

H.R. 14418. A bill to amend title XVI of the Social Security Act to provide for emergency assistance grants to recipients of supplemental security income benefits, to authorize cost-of-living increase in such benefits and in State supplementary payments, to prevent reductions in such benefits because of social security benefit increases, to provide reimbursement to States for home relief payments to disabled applicants prior to determination of their disability, to permit payment of such benefits directly to drug addicts and alcoholics (without a third-party payee) in certain cases, and to continue on a permanent basis the provision making supplemental security income recipients eligible for food stamps, and for other purposes; to the Committee on Ways and Means.

By Mr. BINGHAM (for himself, Mr. BADILLO, Mr. BRASCO, Ms. CHISHOLM, Mr. FISH, Mr. HORTON, Mr. KOCH, Mr. MURPHY of New York, and Mr. PODELL):

H.R. 14419. A bill to amend title XVI of the Social Security Act to provide for emergency assistance grants to recipients of supplemental security income benefits, to authorize cost-of-living increase in such benefits and in State supplementary payments, to prevent reductions in such benefits because of social security benefit increases, to provide reimbursement to States for home relief payments to disabled applicants prior to determination of their disability, to permit payment of such benefits directly to drug addicts and alcoholics (without a third party payee) in certain cases, and to continue on a permanent basis the provision making supplemental security income recipients eligible for food stamps, and for other purposes; to the Committee on Ways and Means.

By Mr. BREAUX (for himself and Mr. LOTT):

H.R. 14420. A bill to amend the Duck Stamp Act with respect to the treatment of moneys received from the sale of migratory-bird hunting stamps, and for other purposes; to the Committee on Merchant Marine and Fisheries.

By Mr. CAREY of New York:

H.R. 14421. A bill to amend title XVI of the Social Security Act to provide for emergency assistance grants to recipients of supplemental security income benefits, to authorize cost-of-living increase in such benefits and in State supplementary payments, to prevent reductions in such benefits because of social security benefit increases, to provide reimbursement to States for home relief payments to disabled applicants prior to determination of their disability, to permit payment of such benefits directly to drug addicts and alcoholics (without a third party payee) in certain cases, and to continue on a permanent basis the provision making supplemental security income recipients eligible for food stamps, and for other purposes; to the Committee on Ways and Means.

By Mr. DENHOLM (for himself, Mr. BERGLAND, Mr. BURLISON of Missouri, Mr. MATHIS of Georgia, Mr. MAYNE, Mr. RONCALIO of Wyoming, and Mr. SMITH of Iowa):

H.R. 14422. A bill directing the Secretary of the Department of Transportation to conduct a comprehensive, nationwide study of the effects of railroad abandonment, to develop an effective policy to assure an adequate, economic system for the transportation of freight with emphasis on branch line facilities in the movement of agricultural commodities, and prohibiting the Interstate Commerce Commission from authorizing any further abandonments of railway freight fa-

cilities for a period of 3 years after enactment of this act; to the Committee on Interstate and Foreign Commerce.

By Mr. FULTON (for himself, Mr. KUYKENDALL, Mr. DENT, Mr. DUNCAN, Mr. DE LUGO, Mr. KETCHUM, Mr. BAFALIS, Mr. WAGGONNER, Mr. BRASCO, Mr. HOSMER, Mr. KEMP, Mr. PODELL, Mr. DAVIS of South Carolina, and Mr. RARICK):

H.R. 14423. A bill to amend title 17 of the United States Code to remove the expiration date provided in Public Law 92-140 which authorized the creation of a limited copyright in sound recordings for the purpose of protecting against unauthorized duplication and piracy of sound recordings; to increase the criminal penalties for piracy and counterfeiting of sound recordings; and for other purposes; to the Committee on the Judiciary.

By Mr. HOGAN (for himself, Mr. ANDERSON of Illinois, Mr. ASHLEY, Mr. BAUMAN, Mr. BYRON, Ms. CHISHOLM, Mr. COLLIER, Mr. CONYERS, Mr. DOMINICK V. DANIELS, Mr. DAVIS of South Carolina, Mr. DELLUMS, Mr. EVANS of Colorado, Mr. FAUNTROY, Mr. GOLDWATER, Mr. HAMILTON, Mr. HANSEN of Idaho, Mrs. HOLT, Mr. HOWARD, Mr. HUNGATE, Mr. MATHIS of Georgia, Mr. MITCHELL of Maryland, Mr. POWELL of Ohio, Mr. PETTIS, and Mr. ROBISON of New York):

H.R. 14424. A bill to authorize voluntary withholding of Maryland, Virginia, and District of Columbia income taxes in the case of Members of Congress and congressional employees; to the Committee on Ways and Means.

By Mr. HOGAN (for himself, Mr. SCHNEEBELI, Mr. SEIBERLING, Mr. STARK, Mr. STUBBLEFIELD, Mr. THOMPSON of New Jersey, Mr. WHITEHURST, Mr. WRIGHT, Mr. WYMAN, and Mr. YATRON):

H.R. 14425. A bill to authorize voluntary withholding of Maryland, Virginia, and District of Columbia income taxes in the case of Members of Congress and congressional employees; to the Committee on Ways and Means.

By Mr. LITTON (for himself, Mr. ABDNOR, Mr. ARMSTRONG, Mr. BRINKLEY, Mr. CLAY, Ms. COLLINS of Illinois, Mr. HOSMER, Mr. GUYER, Mr. HANRAHAN, Ms. HOLT, Mr. JOHNSON of Colorado, Mr. JONES of Tennessee, Mr. MCKINNEY, Mr. MOORHEAD of California, Mr. MURPHY of New York, Mr. REGULA, Mrs. SULLIVAN, Mr. SYMINGTON, Mr. TAYLOR of Missouri, Mr. TOWELL of Nevada, Mr. TREEN, Mr. ULLMAN, and Mr. WALSH):

H.R. 14426. A bill to amend the Legislative Reorganization Act of 1970 to provide seminars to freshmen Members of the Congress, and for other purposes; to the Committee on House Administration.

By Mr. MEEDS:

H.R. 14427. A bill to authorize the purchase, sale and exchange of lands by the Lummi Indian Tribe of the Lummi Indian Reservation, Wash., and for other purposes; to the Committee on Interior and Insular Affairs.

By Mrs. MINK (for herself and Mr. STEELE):

H.R. 14428. A bill for the relief of certain orphans in Vietnam; to the Committee on the Judiciary.

By Mr. PETTIS (for himself and Mr. BURLESON of Texas):

H.R. 14429. A bill to amend the Internal Revenue Code of 1954 with respect to the tax treatment of capital gains and losses; to the Committee on Ways and Means.

By Mr. SCHNEEBELI (for himself, Mr. ESHLEMAN, and Mr. WARE):

H.R. 14430. A bill to amend the Internal Revenue Code of 1954 and the Social Security Act to provide an exemption from coverage under the social security program, through a tax refund procedure, for employees who are members of religious faiths which oppose participation in such program, and to provide a similar exemption on a current basis (pursuant to waiver certificates filed in advance) for employers engaged in farming and their employees in cases where both are members of such faiths; to the Committee on Ways and Means.

By Mr. TIERNAN:

H.R. 14431. A bill to extend and improve the Nation's unemployment programs and for other purposes; to the Committee on Ways and Means.

By Mr. MAHON:

H.R. 14434. A bill making appropriations for energy research and development activities of certain departments, independent executive agencies, bureaus, offices, and commissions for the fiscal year ending June 30, 1975, and for other purposes.

By Mr. LOTT:

H.J. Res. 987. Joint resolution authorizing the President to proclaim May 4, 1975, as National Hike or Bike Sunday; to the Committee on the Judiciary.

By Mr. STEIGER of Wisconsin:

H.J. Res. 988. Joint resolution to authorize the President to issue a proclamation designating the month of May 1974, as National Arthritis Month; to the Committee on the Judiciary.

By Mr. TIERNAN:

H.J. Res. 989. Joint resolution to authorize the President to issue a proclamation designating the month of May 1974, as National Arthritis Month; to the Committee on the Judiciary.

By Mr. FORD (for himself, Mr. MILLS, Mr. LEHMAN, and Mr. BELL):

H. Con. Res. 482. Concurrent resolution designating May 12 through May 18, 1974, as National Migrant Education Week; to the Committee on the Judiciary.

By Mr. TIERNAN:

H. Con. Res. 483. Concurrent resolution to request the Internal Revenue Service to re-evaluate the present tax deduction for the business use of automobiles; to the Committee on Ways and Means.

By Mr. CRANE (for himself, Mr. FLOOD, Mr. BLACKBURN, Mr. WAGGONNER, Mr. BAKER, Mr. BEARD, Mr. CASEY of Texas, Mr. COLLIER, Mr. FISH, Mr. LUJAN, Mr. PARRIS, and Mr. YOUNG of South Carolina):

H. Res. 1062. Resolution in support of continued undiluted U.S. sovereignty and jurisdiction over the U.S.-owned Canal Zone on the Isthmus of Panama; to the Committee on Foreign Affairs.

By Mr. DERWINSKI (for himself and Mr. MCKAY):

H. Res. 1063. Resolution creating a select committee to study the impact and ramifications of the Supreme Court decisions on abortion; to the Committee on Rules.

By Mr. REID:

H. Res. 1064. Resolution respecting the safety of the Jewish community of Syria; to the Committee on Foreign Affairs.

By Mr. YOUNG of Georgia (for himself, Ms. ABZUG, Mr. ANDERSON of Illinois, Mr. ASHLEY, Mr. BADILLO, Mr. BAFALIS, Mr. BARRETT, Mr. BAUMAN, Mr. BEARD, Mr. BERGLAND, Mr. BIAGGI, Mr. BOLAND, Mr. BOLLING, Mr. BRASCO, Mr. BRINKLEY, Mr. BROOKS, Mr. BROWN of California, Mr. BROYHILL of North Carolina, Mr. BUCHANAN, Ms. BURKE of California, Mr. BURTON, Mr. BYRON, Mr. CHAMBERLAIN, Ms. CHISHOLM, and Mr. CLARK):

H. Res. 1065. Resolution to commend and congratulate Henry Aaron; to the Committee on the Judiciary.

By Mr. YOUNG, of Georgia (for himself, Mr. CLAY, Ms. COLLINS of Illinois, Mr. CONTE, Mr. CONYERS, Mr. CORMAN, Mr. COTTER, Mr. CULVER, Mr. DOMINICK V. DANIELS, Mr. DAVIS of Georgia, Mr. DAVIS of South Carolina, Mr. DELLUMS, Mr. DE LUGO, Mr. DERWINSKI, Mr. DIGGS, Mr. DORN, Mr. DUNCAN, Mr. EDWARDS of California, Mr. EDWARDS of Alabama, Mr. ESHLEMAN, Mr. FASCELL, Mr. FAUNTROY, Mr. FISH, Mr. FLYNT, and Mr. FORD):

H. Res. 1066. Resolution to commend and congratulate Henry Aaron; to the Committee on the Judiciary.

By Mr. YOUNG of Georgia (for himself, Mr. FRASER, Mr. FRENZEL, Mr. FUQUA, Mr. GINN, Mr. GONZALEZ, Mr. GREEN of Pennsylvania, Mr. GUNTER, Mr. HARRINGTON, Mr. HAWKINS, Mr. HAYS, Mrs. HOLT, Mr. HORTON, Mr. HOSMER, Mr. HUDNUT, Mr. HUNGATE, Mr. JOHNSON of California, Mr. JONES of North Carolina, Mr. KEMP, Mr. LANDRUM, Mr. MCKINNEY, Mr. MCSPADDEN, Mr. MATHIS of Georgia, Mr. MEEDS, and Mr. METCALFE):

H. Res. 1067. Resolution to commend and congratulate Henry Aaron; to the Committee on the Judiciary.

By Mr. YOUNG of Georgia (for himself, Mr. MICHEL, Mr. MINISH, Mrs. MINK, Mr. MITCHELL of New York, Mr. MITCHELL of Maryland, Mr. MOAKLEY, Mr. MOORHEAD of Pennsylvania, Mr. MURPHY of Illinois, Mr. NIX, Mr. OBEY, Mr. O'NEILL, Mr. PEPPER, Mr. PODELL, Mr. POWELL of Ohio, Mr. PREYER, Mr. RANGEL, Mr. REES, Mr. REID, Mr. REUSS, Mr. ROBINSON of Virginia, Mr. RODINO, Mr. ROE, Mr. ROSE, and Mr. ROSENTHAL):

H. Res. 1068. Resolution to commend and congratulate Henry Aaron; to the Committee on the Judiciary.

By Mr. YOUNG of Georgia (for himself, Mr. ROUSH, Mr. RUNNELS, Mr. SARBANES, Mr. SCHNEEBELI, Ms. SCHROEDER, Mr. SIKES, Mr. SISK, Mr. J. WILLIAM STANTON, Mr. STARK, Mr. STOKES, Mr. STRATTON, Mr. STUCKEY, Mrs. SULLIVAN, Mr. SYMMS, Mr. THONE, Mr. UDALL, Mr. ULLMAN, Mr. VANDER JAGT, Mr. VANDER VEEN, Mr. VIGORITO, Mr. WALSH, Mr. WHITEHURST, Mr. WIDNALL, and Mr. BOB WILSON):

H. Res. 1069. Resolution to commend and congratulate Henry Aaron; to the Committee on the Judiciary.

By Mr. YOUNG of Georgia (for himself, Mr. MATHIAS of California, Mr. CHARLES WILSON of Texas, Mr. CHARLES H. WILSON of California, Mr. WINN, Mr. WON PAT, and Mr. YATRON):

H. Res. 1070. Resolution to commend and congratulate Henry Aaron; to the Committee on the Judiciary.

PRIVATE BILLS AND RESOLUTIONS

Under clause 1 of rule XXII, private bills and resolutions were introduced and severally referred as follows:

By Mr. ADAMS:

H.R. 14432. A bill for the relief of D. Eugene Hokanson; to the Committee on the Judiciary.

By Mr. KING:

H.R. 14433. A bill for the relief of Mr. Rostislav K. Benes, his wife, Ludmila Benes, and child Hana Benes; to the Committee on the Judiciary.