104TH CONGRESS
2d Session

HOUSE OF REPRESENTATIVES

REPT. 104–550
Part 1

OMNIBUS CIVILIAN SCIENCE AUTHORIZATION ACT OF 1996

R E P O R T

OF THE

COMMITTEE ON SCIENCE
HOUSE OF REPRESENTATIVES

ON

H.R. 3322

together with

DISSENTING VIEWS

[Including cost estimate of the Congressional Budget Office]

MAY 1, 1996.—Ordered to be printed

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Mr. WALKER, from the Committee on Science, submitted the following

R E P O R T

together with

DISSENTING VIEWS

[To accompany H.R. 3322]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, to whom was referred the bill (H.R. 3322) to authorize appropriations for fiscal year 1997 for civilian science activities of the Federal Government, and for other purposes, having considered the same, report favorably thereon without amendment and recommend that the bill do pass.

C O N T E N T S

		Page
I.	Purpose of the Bill	2
II.	Background (By Title) and Need for Legislation	2
III.	Summary of Hearings (By Subcommittee)	8
IV.	Committee Actions	19
V.	Summary of Authorizations and Major Provisions of the Bill (By Title)	21
VI.	Section-By-Section Analysis and Committee Views	26
	Title I. National Science Foundation	26
	Title II. National Aeronautics and Space Administration	36
	Title III. United States Fire Administration	80
	Title IV. National Oceanic and Atmospheric Administration	83
	Title V. Environmental Protection Agency	100
	Title VI. National Institute of Standards and Technology	105
	Title VII. Federal Aviation Administration, R,E&D	108
	Title VIII. National Earthquake Hazards Reduction Program	114
	Title IX Miscellaneous	115
VII.	Committee Cost Estimates	116

VIII. Congressional Budget Office Cost Estimates 116
IX. Effects of Legislation on Inflation 127
X. Oversight Findings and Recommendations 127
XI. Oversight Findings and Recommendations by the Committee on Government Reform and Oversight 127
XII. Changes in Existing Law made by the Bill, As Reported 127
XIII. Committee Recommendations 186
XIV. Dissenting Views 186
XV. Proceedings of Full Committee Markup 206

I. Purpose of the Bill

The purpose of the bill is to authorize appropriations for fiscal year 1997 for most programs and missions under the jurisdiction of the Science Committee. H.R. 3322 contains $19.7 billion in authorizations for these programs. Department of Energy programs are not included in this bill, as FY97 authorizations for these programs were passed by the House on October 12, 1995 as part of H.R. 2405, the Omnibus Civilian Science Authorization Act of 1995.

FY 1997 SCIENCE COMMITTEE AUTHORIZATIONS

H.R. 3322	FY96	FY97 Mark	Mark vs. '96
Title			
I. NSF	3,220.0	3,250.5	30.5
II. NASA	13,909.9	13,501.8	-408.1
III. Fire (USFA in FEMA)	28.5	27.6	-0.9
IV. NOAA	1,858.2	1,794.9	-63.3
V. EPA	506.7	490.0	-16.7
VI. NIST	552.0	385.8	-166.2
VII. FAA	185.7	185.7	0.0
VIII. Earthquake			
FEMA	19.9	18.8	-1.1
USGS	46.1	46.1	0.0
BILL TOTAL	20,327.0	19,701.2	-625.8
House Passed DOE:			
General Science	981.0	950.0	-31.0
Energy Supply R&D	2,727.4	2,600.0	-127.4
Fossil R&D	377.0	221.0	-156.0
Cons. R&D	412.5	230.1	-182.4
DOE TOTAL	4,497.9	4,001.1	-496.8
SCIENCE COMMITTEE TOTAL	24,824.9	23,702.3	-1,122.6

II. Background (By Title) and Need for Legislation

Title I—National Science Foundation

The National Science Foundation (NSF) Act of 1950 authorizes and directs NSF to initiate and support basic research and programs to strengthen research potential and education at all levels in the sciences and engineering. The Act reinforces that basic research and education have traditionally constituted the heart of the NSF's mission.

Title II—National Aeronautics and Space Administration

The National Aeronautics and Space Administration (NASA) faces an even greater budget decline in the outyears than was anticipated last year. Under the Administration's budget for fiscal year 1997, NASA faces additional cuts of $3.2 billion from fiscal years 1998-2000. Last year's outyear budget was adjusted by NASA to a level of $13.2 billion by fiscal year 2000, after the Administra-

tion cut $5 billion out of NASA's budget for President Clinton's tax cut. That amount has subsequently been adjusted to $4 billion from fiscal years 1996-2000.

The Office of Management and Budget (OMB) sent a budget back to NASA that takes the agency down to $11.6 billion in fiscal year 2000, instead of the anticipated $13.2 billion. Further, the Administration has defined its five priorities for NASA that are to be protected as the budget starts its downward spiral in fiscal year 1998. These five priorities are: (1) Mission to Planet Earth; (2) International Space Station; (3) Advanced Subsonic Technology and High Speed Research in Aeronautics; (4) High Performance Computing and Communications; and (5) New Millennium. Space Science and Space Technology (beyond New Millennium) are noticeably absent and will be subject to a disproportionate share of the cuts in the outyears.

Furthermore, the Administration's budget request for fiscal year 1997 fails to make the tough decisions this year, that are necessary to put NASA on a track for the outyear budget. Under the Administration's budget, $557 million is cut in fiscal year 1998; $1.05 billion is cut in fiscal year 1999; and $1.55 billion is cut in fiscal year 2000. It would seem prudent to start the process, in fiscal year 1997, instead of waiting until fiscal year 1998 or 1999 to cancel whole programs after they have been funded in fiscal year 1997. A budget line that approximates a slope is much more desirable than one that falls off a cliff. It is critical that tough choices be made this year and that a balance among NASA's core missions is attained.

Title III—United States Fire Administration

In 1974 Congress enacted the Federal Fire Prevention and Control Act in response to a nationwide concern with the loss of life and property from fires. The Act established the United States Fire Administration in an effort to prevent and reduce this loss of life and property. The USFA coordinates the nation's fire safety and emergency medical service activities. The USFA works with state and local units of government to educate the public on fire prevention and control, collect, and analyze data related to fire, promote the use of sprinkler systems in residential and commercial buildings, conduct research and development on fire suppression, promote firefighter health and safety, and coordinate with other federal agencies charged with emergency response activities.

The USFA also administers the National Fire Academy (NFA), which provides training to fire and emergency service personnel in fire protection and control activities.

During the first session of the 104th Congress, the House passed H.R. 1851, which was a two-year authorization for the USFA. Except for a change in the authorization funding level for FY 1997 from $28 million to $27.56 million, to conform to the Administration's FY 1997 request, this title includes the text of H.R. 1851.

Title IV—National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA), created in 1970 by Executive Order of President Nixon, has obtained most of the funding for its programs over the past twenty

years through direct appropriation without annual legislative authorization.

NOAA programs under the jurisdiction of the Science Committee include all of the National Weather Service, the Office of Oceanic and Atmospheric Research (OAR), the National Environmental Satellite, Data, and Information Services (NESDIS), and portions of the National Oceans Service (NOS).

In the 98th Congress, legislation authorizing NOAA activities for fiscal year 1984, S. 1097, was vetoed on October 19, 1984. In the 99th Congress, the Consolidated Omnibus Budget Reconciliation Act of 1986 (Public Law 99-272) authorized various NOAA activities, including nautical and aeronautical chart programs, marine research and monitoring, ocean pollution research, and weather modification research. During the 100th Congress, provisions authorizing fiscal year 1989 appropriations for NOAA's satellite, atmospheric, and weather programs (previously approved by the House of Representatives and the Senate as S. 1667) were included in Title IV of S. 2209, the National Aeronautics and Space Administration Authorization Act for fiscal year 1989, which was signed into law on November 17, 1988 (Public Law 100-685).

During the 102nd Congress, the first comprehensive NOAA authorization bill was approved and signed into law, the National Oceanic and Atmospheric Administration Authorization Act of 1992 (Public Law 102-567). With three exceptions, Public Law 102-567 only authorized funding for fiscal years 1992 and 1993. The exceptions are portions of the Next Generation Weather Radar (NEXRAD) program and the Geostationary Operational Environmental Satellite (GOES) program which are authorized to completion, and NOAA Fleet Modernization which is authorized through FY 1997. No comprehensive NOAA authorization bills have been signed into law since the 102nd Congress.

Title V—Environmental Protection Agency

A. EPA'S RESEARCH PROGRAM

The Environmental Protection Agency's (EPA) Office of Research and Development is responsible for EPA's in-house and extramural research programs. The Office of Research and Development budget represents the majority of the new Science & Technology (S&T) Appropriations account. The VA, HUD and Independent Agencies Conference Report funded the new S&T account at $525 million for FY1996.

The EPA's $7 billion request includes $537,610,200 for the Office of Research and Development. The FY 1997 request for the Office of Research and Development represents an $81,960,000 increase over the estimated FY 1996 level.

Within the broad category of multimedia research, the EPA proposes to continue funding for the Administration's Environmental Technology Initiative (ETI) in the Office of Research and Development. In 1994, EPA was designated the lead agency for the ETI. The initiative is intended to expand the development and use of innovative environmental technology through federal/state and private sector partnership.

The Office of Research and Development controls twelve research laboratories and four assessment offices. These assets have been

reorganized to fall under the management of three national laboratories and two national centers. They are the National Health and Environmental Effects Research Laboratory (NHEERL) in Triangle Park, NC, the National Exposure Research Laboratory (NERL) in Triangle Park, NC, the National Risk Management Laboratory (NRML) in Cincinnati, OH, the National Center for Environmental Research Quality Assurance (NCERQA) and the National Center for Environmental Assessment (NCEA), both of which are located in Washington, DC.

The Science and Technology Appropriations account also includes appropriations for the following non-Office of Research and Development Laboratories, National Vehicles and Fuels Emission Laboratory, National Radiation Laboratories, Analytical and Environmental Chemistry Laboratories, Drinking Water Program Laboratory, and National Enforcement Investigations Center.

Currently the programs of the Office of Research and Development are unauthorized. The last authorization for the Office of Research and Development, the Environmental Research, Development and Demonstration Act of 1981 (P.L. 96-569), expired on September 30, 1981.

Title VI—National Institute of Standards and Technology

Title VI of H.R. 3322 provides an authorization for fiscal year 1997 appropriations for the National Institute of Standards and Technology's (NIST) Scientific and Technical Research Services (STRS), as well as for Construction of Research Facilities.

NIST's mission is to promote economic growth by working with industry to develop and apply technology, measurements, and standards. This mission is integral to our nation's competitiveness in the global marketplace. Established by Congress in 1901 as the National Bureau of Standards, NIST is the nation's oldest federal laboratory. The Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-48) renamed the laboratories to NIST, and added new responsibilities to NIST's mission. NIST, which is part of the Department of Commerce, supplements its appropriated funds with contributions from industry, and payments for contracts from other government agencies.

The Committee believes that Title VI reflects both the Committee's strong commitment to fundamental basic science, which is vital to our nation's future, and the need to maintain budgetary discipline.

Title VII—Federal Aviation Administration, R,E&D

Title VII of H.R. 3322 authorizes fiscal year 1997 appropriations for the activities for the Federal Aviation Administration's (FAA) FY97 research, engineering and development; and mandates the guiding principles for the conduct of research, engineering and development activities.

The FAA was created in 1958 to develop air commerce and promote safety in the air. As part of the Airport Development and Airway Trust fund established by Congress in 1982, it was decided that a comprehensive research and development program was necessary at FAA to maintain a safe, efficient air traffic system. In order to fund both these research and development programs and

improve airport and airways capital improvements, a series of user fees and taxes were established.

The 100th Congress, seeking to strengthen the FAA research and development programs, enacted the 1988 Aviation Safety Research Act P.L. 100-591. This bill created the FAA Research, Engineering and Development Advisory Board. The terrorist bombing of Pan Am Flight 103 demonstrated the need for new technology to detect explosives; and, Congress subsequently passed the Aviation Safety Improvement Act of 1990 which required FAA to support activities to accelerate the research and development of new technologies to protect against terrorism.

As directed by P.L. 104-50, the FAA recently began phasing in a new acquisition management system. FAA programs have experienced significant problems in costs, schedules, and performance and the Committee believes improvements in modernizing the nation's air traffic will require fundamental changes in FAA's acquisition management processes, and oversight structure.

Title VIII—National Earthquake Hazards Reduction Program

Earthquakes kill more people and destroy more property than any other natural disaster. Over the past fifteen years, earthquakes have caused over 100,000 deaths and hundreds of billions of dollars in economic losses worldwide. Because much of these losses can be prevented or reduced through promulgation of adequate zoning and building codes, emergency planning, public education and prompt response, Congress established the National Earthquake Hazards Reduction Program (NEHRP).

Since its inception in 1977, NEHRP endeavors to reduce earthquake hazards and risk through research, development, and implementation. The program combines the efforts of four federal agencies—the Federal Emergency Management Agency, the United States Geological Survey, the National Science Foundation, and the National Institute of Standards and Technology.

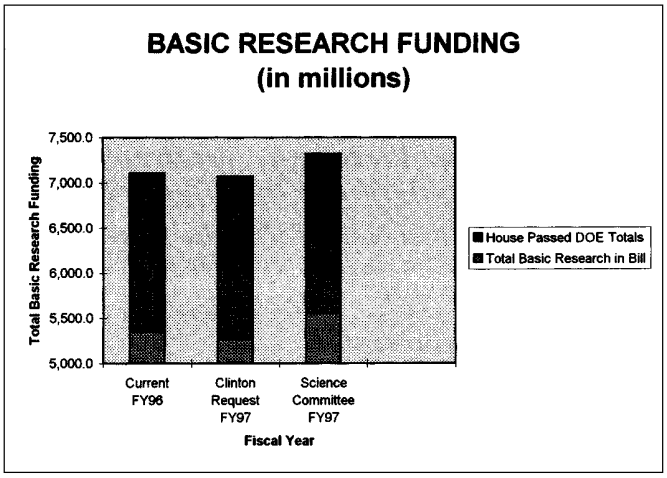
The NEHRP has been reauthorized eight times since the originating legislation, PL 95-124. Two of these reauthorizations made significant policy changes.

Although the committee reported its authorization bills individually last year, they were brought to the House floor under a single unified bill, H.R. 2405, the Omnibus Civilian Science Authorization Act of 1995. It is the committee's belief that by taking an omnibus approach to its authorization responsibilities it is taking the opportunity to protect basic research and heighten the awareness of the impact science has on the future economic well-being of the nation, as demonstrated by the following illustrative chart and graph.

BASIC RESEARCH FUNDING
(in millions)

	FY96 Current	FY97 Clinton Request	FY97 Science Committee
NSF Research and Related Activities	2,414.0	2,472.0	2,440.3
NASA Space Science	2,032.6	1,857.3	2,167.4
NASA Life & Microgravity Sciences	488.5	498.5	498.5
NOAA Climate & Air Quality Research	99.3	115.7	99.3
NOAA Coastal Ocean Science	11.5	14.8	17.3
NOAA Sea Grant Research	27.7	25.3	36.0
NOAA Marine Research	15.0	14.8	14.8
NIST Scientific & Technical Research ("core")	259.0	270.7	280.6
BASIC RESEARCH TOTAL IN BILL	**5,347.6**	**5,269.1**	**5,554.2**
HOUSE PASSED DOE TOTALS *	**1,757.4**	**1,801.9**	**1,766.4**
SCIENCE COMMITTEE TOTAL	**7,105.0**	**7,071.0**	**7,320.6**

***Includes General Science and Research, Basic Energy Sciences, and Life Sciences (including Human Genome)**



III. Summary of Hearings (By Subcommittee)

Subcommittee on Basic Research

On March 22, 1996 the Subcommittee on Basic Research held a hearing titled "National Science Foundation FY97 Authorization" to receive testimony on NSF's FY 1997 budget request. Dr. Neal Lane, Director of NSF, presented the President's FY 1997 budget request of $3.325 billion, 4.6% above the 1996 Appropriations Conference level. Dr. Lane emphasized that this budget reflects a clear prioritization of NSF programs and reiterated NSF's strategic plan, which focuses on four major areas: (1) maintaining balanced support for programs across all fields of science and engineering; (2) maintaining NSF's long-term commitment to world-class projects such as optical and radio telescopes, particle accelerators, Antarctic research, Lazer Interferometer Gravitational Wave Observatory (LIGO), the Research Fleet, etc.; (3) promoting interdisciplinary work between pure research and education; and (4) promoting partnerships among individuals, colleges and universities, industry and government. He also stated that NSF has made tough choices required by a balanced budget, noting that the FY 1997 budget reduces and transfers the $100 million Academic Research Infrastructure Program (ARI) to the Research and Related Activities Account (RRA), and that a mere 4% of NSF's budget is allotted for administration, overhead, etc. The NSF research and education programs were reviewed, with emphasis on their overall contributions to the nation. The Subcommittee discussed the out-year planning for long term support of basic research. Discussions of priority setting and the reduction and transfer of the ARI were of importance to the Subcommittee.

On March 16, 1995 the Subcommittee on Basic Research held an oversight hearing on the programs of the USFA under the Federal Fire Prevention and Control Act of 1974. Witnesses included Representative Steny Hoyer, Co-chairman, Congressional Fire Caucus; Carrye Brown, Administrator, USFA; Gary Tokle, Assistant Vice President, National Fire Protection Association; Francis McGarry, President, National Association of State Fire Marshals, Bill Jenaway, CIGNA Corporation; and Dan Shaw, Chief of the Placitis, New Mexico Fire Department.

All of the witnesses testified to the success and importance of the United States Fire Administration.

On October 24, 1995 the Subcommittee on Basic Research held an oversight hearing on the NEHRP. Witnesses included Dr. Paul Komor, former project director and author of the report "Reducing Earthquake Losses" issued by the Office of Technology Assessment (OTA); Dr. Daniel Abrams, Professor of Civil Engineering at the University of Illinois; Richard Moore, Associate Director for Mitigation for FEMA; Dr. Robert Hamilton, Program Coordinator for Geological Hazards for the USGS; Dr. Joseph Bordogna, Assistant Director for Engineering for the NSF; Dr. Richard Wright, director of the Building and Fire Research Laboratory for NIST; Dr. Paul Somerville, seismologist at Woodward-Clyde Federal Services; Dr. Thomas Jordan, professor of Earth Science at the Massachusetts Institute of Technology; Dr. Thomas Anderson, Fluor Daniel; and

Dr. Anne Kiremidjian, professor of civil engineering at Stanford University.

The witnesses were unanimous in their support for the NEHRP and all urged the Committee to reauthorize the program.

Subcommittee on Energy and Environment

On October 17, 1995 the Subcommittee on Energy and Environment held a hearing titled "Next Generation Weather Radar (NEXRAD): Are We Covered?" to examine the National Weather Service's (NWS's) current plan for modernization focusing on Next Generation Weather Radar (NEXRAD) coverage for the United States. The witnesses were: Congressman Steve Buyer; Congressman Phil English; Congressman George Gekas; Congressman Mark Souder; Congressman Wally Herger; Congressman Mac Thornberry; Mr. Joe Friday, Jr., Assistant Administrator for Weather Services at NOAA; Dr. William E. Gordon, Chairman of the NEXRAD Panel, and Floyd Hauth, Study Director, for the Committee on the Modernization of the NWS; and Jack L. Brock, Jr., Director of the Defense Information and Financial Management Systems for the Accounting and Information Management Division of the United States GAO. Witnesses commented on recommendations made by the NEXRAD Panel and the NRC.

On February 29, 1996, the Subcommittee on Energy and Environment held a hearing titled "National Weather Service Modernization Program Status." The focus of the hearing was on the General Accounting Office (GAO) and Department of Commerce Inspector General (IG) reports which raised concern about the lack of quality assurance and the unrealistic timetable associated with the cornerstone of the NWS modernization program, the Advanced Weather Prediction System (AWIPS). The witnesses were: The Honorable Dr. D. James Baker, Administrator of the National Oceanic and Atmospheric Administration and Under Secretary for Oceans and Atmosphere at the Department of Commerce; Mr. Frank DeGeorge, Inspector General at the U.S. Department of Commerce; Mr. Arthur Zygielbaum, Senior Member of the Technical Staff in the Observational Systems Division of the Jet Propulsion Laboratory at the California Institute of Technology; and Mr. Jack L. Brock, Jr., Director of Information Resources Management/ Resources Community and Economic Development at the U.S. GAO. According to the panel, NWS believes that a minimal amount of risk is associated with the aggressive deployment schedule but acknowledges that there is some technical risk of schedule slip due to the overlap of certain development steps.

On March 21, 1996, the Subcommittee on Energy and Environment held a hearing titled "Budget Hearing on FY 1997 Request for DOE, NOAA, EPA and Safe Drinking Water R&D" and received testimony on the Administration's FY 1997 budget request for NOAA. The Honorable Dr. D. James Baker, Administrator of NOAA and Under Secretary of Oceans and Atmosphere for the U.S. Department of Commerce, testified that NOAA's budget request increase is primarily driven by systems costs. He stated that the budget reflects a decrease of $25 million for Full-Time Equivalent (FTE) and administrative reductions and that by 1999 NOAA will have reduced its FTEs by more than 2000 people. He also noted the Administration's support for the elimination of the NOAA Corps

and the downsizing of NOAA ship operations. Dr. Baker stressed that the budget is allocated according to NOAA's strategic plan and its four elements: (1) advancing short-term warnings and forecasts; (2) implementing seasonal to interannual forecasts; (3) predicting decadal to centennial change in order to provide accurate measurements of the changing environment; and (4) safe navigation.

On March 21, 1996, the Subcommittee on Energy and Environment held a hearing titled "Budget Hearing on FY 1997 Request for DOE, NOAA, EPA and Safe Drinking Water R&D" and received testimony on the Administration's FY 1997 budget request for EPA. The Honorable Dr. Robert J. Huggett, Assistant Administrator for Research and Development at the EPA, testified that EPA has reorganized twelve research laboratories and five headquarters offices into three national research laboratories, two national research centers, and two headquarters offices. He also testified that the Office of Research and Development headquarters' staff has been reduced from 300 to less than 150. He stated that EPA is working with its Science Advisory Board (SAB), the National Academy of Sciences, the National Research Council and the private sector to obtain recommendations and guidance. Dr. Huggett highlighted areas of primary concern for the Office of Research and Development in FY1997, these include drinking water research, including disinfection by-products, particulate matter (PM10); and endocrine disruptors. Dr. Huggett discussed the establishment of an independent Board of Scientific Counselors to the Office of Research and Development and its composition of outside scientists responsible for evaluating EPA's Science and engineering programs, risk-management programs and laboratories and research management.

Subcommittee on Space and Aeronautics

The Subcommittee on Space and Aeronautics held two formal authorization hearings during the early part of 1996. On March 28, NASA Administrator Daniel S. Goldin testified about the agency's programs.

On April 17, Mr. Richard Wisniewski, Deputy Associate Administrator for the Office of Space Flight at NASA; Dr. Anthony England, Space Studies Board of the National Research Council; Dr. W.D. Kay, Associate Professor for the Department of Political Science at Northeastern University; Col. Gary Payton, Director of the Space Transportation Division at NASA; Maj. Gen. Lance Lord, Director of Plans at Air Force Space Command; Mr. Rick Fleeter, President of AeroAstro; Mr. Ray Morgan, Vice President for Aerovironment; Mr. Louis J. Lanzerotti, Distinguished Member Technical Staff of Lucent Technologies; Dr. John Hester, Assistant Professor of Physics and Astronomy at Arizona State University; Dr. Holland Ford, Department of Physics and Astronomy at Johns Hopkins University; Dr. Anneila Sargent, Chair of the Department of Astronomy at California Institute of Technology and Chair of the NASA Space Science Advisory Committee; Dr. Louis Friedman, Executive Director for The Planetary Society; Dr. Jerry Grey, American Institute of Aeronautics and Astronautics; Col. Michael S. Francis, Tactical Technology Office at the Defense Advanced Research Projects Agency; Dr. Fred Billig, Applied Physics Lab at Johns Hopkins University; Mr. Wilbur C. Trafton, Associate Ad-

ministrator for the Office of Space Flight at NASA; Mr. Kent Black, Chief Executive Officer for United Space Alliance; Mr. Dan Tam, Space Station Business Manager at NASA; VADM Robert F. Dunn, Aerospace Safety & Advisory Panel; Mr. Jim Pagliasotti, Executive Director for the Aerospace States Association; and Dr. Joel Snow, Director for the Institute for Physical Research & Technology at Iowa State University testified before the Subcommittee on Space and Aeronautics on the U.S. Space Program, including NASA.

At the March hearing, Mr. Goldin testified that the agency asked for stable funding through FY97 and that the President's budget for FY97 was essentially the same level as FY96, $13.8 billion. However, from his testimony, Mr. Goldin was not ready to accept the outyear numbers in the proposed budget. Goldin maintained that the outyear budget which drops to $11.6 billion by FY00 was "not chiseled in stone" and that he would "not take any precipitous action" to carry out the cuts in the outyear budget. Mr. Goldin referenced the statement by the Office of Management and Budget in the NASA FY97 Budget request, "The outyear numbers should not be considered final policy numbers. They are going to be refined further by the Administration as it reviews possible savings (in the form of spending reductions or new fees) in all agencies. Once identified, these savings will contribute to the outyear numbers for NASA." Goldin also testified that since 1993, the agency has reduced its outyear budget plan by 36% (saving taxpayers nearly $40 billion) by rescoping programs, eliminating low-priority efforts, reducing support contracts, and conducting two employee buyouts. The Administration has set NASA's five priorities to be maintained in the outyears: Mission To Planet Earth; Space Station; High Speed Research and the Advanced Subsonic Technology programs within the Aeronautics program; High Performance Computing and Communications; and New Millennium.

On April 17, 1996, the Subcommittee on Space and Aeronautics held a hearing on the "Fiscal Year 1997 NASA Authorization." The hearing consisted of six panels of witnesses with detailed testimony regarding various NASA enterprises including: (1) Zero Base Review; (2) Space Technology; (3) Space Science; (4) Aeronautics; (5) Human Exploration and Development of Space; (6) and Outreach and Education.

PANEL 1—Zero Base Review

Last year, in response to the President's $5 billion cut in NASA's projected budget (in order to pay for part of the President's tax cut), the agency initiated the Zero Base Review (ZBR) to reduce expenditures through efficient, streamlined agency management. Currently, the ZBR has only identified about $4 billion in savings. Details about where the cuts will specifically come from have not been provided by NASA. In conjunction with the ZBR, NASA is transferring many program responsibilities from headquarters to its field centers. The purpose of this panel was to discuss ZBR as an agency effort that will both affect NASA's ability to reduce costs and its ability to continue creating and using new technology in pursuit of the nation's scientific, technical, commercial, and national security interests.

KEY ISSUES

Mr. Richard J. Wisniewski, NASA's Deputy Associate Administrator for the Office of Space Flight, testified that the ZBR has met the President's challenge of $4 billion in budget reductions between FY97 and FY00. He stated that the ZBR has been successful in fundamentally changing the way that NASA does business. **Dr. Anthony W. England,** from the Space Studies Board of the National Research Council, discussed the impact of budget reductions on space science. His testimony included recommendations that: (1) Science Institute planning should be part of a larger science plan that considers how national space goals will be attained by the sum of all NASA science activities, and (2) that "program management" activities should be split between headquarters and the field centers. **Dr. W.D. Kay,** Associate Professor for Political Science at Northeastern University, praised Administrator Goldin's efforts at successfully restructuring and reducing costs at NASA.

At 2:30 that afternoon, Administrator Goldin released a press statement stating that the current level of headquarters Full-Time Equivalents (FTE's), 1430, would be reduced to 1191 by moving 239 FTE's to centers. The remaining 1191, according to the press release, are subject to a RIF that reduces headquarters staff to a level of 650-700 by October 1, 1997. The House and Senate Appropriations conferees have directed NASA "to suspend immediate implementation of the administrative steps to execute this proposed reduction-in-force, pending full consideration by the Congress of the agency's budget for fiscal year 1997." (H. Rept. 104-537, Conference Report on H.R. 3019, Balanced Budget Down Payment Act, II).

PANEL 2—Space Technology

This panel dealt principally with the creation of new technology for conducting NASA's science and space missions. NASA is developing advanced technology in several areas that will help take the U.S. into the next century of space activity. Unfortunately, the perception sometimes exists within NASA that is the only source of new and innovative space technology. This is not the case. Largely as a result of government investments in NASA and the Department of Defense (DoD) during the Cold War, new and innovative technologies are flowing from the National Security laboratory system and the private sector as well as NASA. Greater use can be made of these technologies in order to reduce the costs of NASA activities and in order to create new capabilities for the civil space agency.

KEY ISSUES

Colonel Gary Payton, USAF (retired), Director of NASA's Office of Advanced Space Transportation, testified about the agency's program to develop technologies for a Reusable Launch Vehicle (RLV) that will prove significantly less costly to operate than the Space Shuttle. Col. Payton, a former astronaut, served previously as Director of the Ballistic Missile Defense Organization's Technology Directorate, which is the source of many new DoD-related space technologies. At this hearing, Col. Payton testified that the DC-XA test vehicle had been completely rebuilt using new lightweight technologies that could possibly be used in the X-33 program. The DC-XA is expected to begin flight testing soon. He also updated Members on the status of NASA's program for new ther-

mal protection systems that would increase vehicle flexibility and lower costs, possibly for use on both the RLV and Space Shuttle. **Maj. Gen. Lance Lord, USAF,** Director of Plans for the Air Force Space Command, testified about the relationship between NASA and the U.S. Air Force (USAF) in developing new technology. NASA and the USAF are in the process of working out arrangements for personnel exchanges and creating technology planning groups with members from both agencies to ensure that individual programs have access to expertise available in both the DoD and NASA and to ensure that costly duplication is avoided. Finally, Maj. Gen. Lord noted that the USAF was leveraging several NASA programs, such as the Clark Remote Sensing Technology Demonstrator, against some USAF mission requirements. **Mr. Rick Fleeter,** President of AeroAstro Inc., testified about the possibility of using microsatellites to perform more specialized space missions at a considerably lower cost than those of currently available satellites (these satellites tend to be very large). Dr. Fleeter noted that microsatellite technology today is in a position roughly comparable to that of the computing industry in 1976, meaning that industry and government are just starting to experiment with microsatellites and that we could look forward to explosive growth of this technology over the next two decades. Dr. Fleeter suggested that NASA's current approach to satellite constellation design was not appropriate for promoting microsatellite development. Using the computer industry analogy, he suggested that NASA's efforts to make satellites cheaper were similar to industry's efforts to make mainframe computers cheaper in the late 1970s when what was really needed was the philosophical change that created the desktop computer. **Mr. Ray Morgan** is Vice President of AeroVironment, Inc., a California-based company participating in NASA's Environmental Research Aircraft and Sensor Technology (ERAST) program to build and operate a high-altitude, long-endurance, solar-powered, unmanned aerial vehicle (UAV), essentially a pilotless airplane capable of flying continuously for thousands of hours in the stratosphere. Mr. Morgan indicated that such aircraft could act as virtual satellites for different environmental monitoring and research efforts because they had certain performance and cost advantages over satellites and manned aircraft for several different missions. Their performance advantages include: (1) no requirement for space qualification of instruments; (2) changeable payloads; (3) low cost; and (4) continuous, in situ measurement of environmental phenomenon.

PANEL 3—Space Science

The FY97 NASA budget request for Space Science declines 9% from last year's funding ($2,032.6 million to $1,857.3 million) and reflects a total decline of 21% from FY96-FY00, not counting further cuts which will take the agency down to 11.6 billion in 2000. The purpose of this panel was to discuss the consequences of budget reductions in space science and compare big science missions with NASA's current emphasis on "cheaper, faster, better."

KEY ISSUES

Dr. Anneila Sargent, Chair of the CalTech's Department of Astronomy and Chair of NASA's Space Science Advisory Committee,

maintained that NASA would have to cut missions if the requested budget decline were to actually come to fruition. In her testimony, Dr. Sargent stated, "space science in the twenty-first century seems to be in jeopardy." **Dr. John "Jeff" Hester,** lead investigator on the Hubble Space Telescope (HST) for the images of the Eagle Nebula, mentioned his concern about the direction NASA is going with "faster, better, cheaper" missions. Dr. Hester noted that some space astronomy projects require large, expensive spacecraft in order to maintain mission quality. Without adequate funding for these basic research, big science missions, the U.S. risks losing its scientific advantage as the world's leader in space. **Mr. Louis Lanzerotti,** from Lucent Technologies and formerly of the Space Studies Board, stated that the space program has become fragmented and has lost synergy. His testimony urged that a bipartisan commission be set up to review the space program in its entirety. **Dr. Holland Ford,** of Johns Hopkins University, stated that the declining budget will inevitably curtail both large and small space programs. **Dr. Louis Friedman,** Chief Executive Officer of The Planetary Society, stated that the budget numbers are causing serious concerns and the outyear numbers are "disastrous." He also pointed out that Mission to Planet Earth has a solid constituency of Senators and the Administration; whereas the constituency for space science is the general public, and they are the ones that need to be represented.

PANEL 4—Aeronautics

The purpose of the Aeronautics panel was to address the direction NASA's aeronautics research programs in the next decade. The FY97 budget for Aeronautic Research and Technology is divided into five areas: (1) Research and Technology Base; (2) High Performance Computing and Communication (HPCC); (3) Numerical Aerodynamic Simulation; (4) High Speed Research (HSR) program; and (5) Advanced Subsonic Technology (AST) program. The budget request submitted for FY97 reflects little change from the FY96 VA/HUD/IA conference report [H. Rept. 104-353, November 17, 1995]. The major item of interest was the extension of the termination date of the AST program from FY02 to FY04 and an increase of $205 million in total costs of the program. Completion of the HSR program is scheduled for FY02. As both AST and HSR are scheduled to end early in the next decade, interest has been raised about the direction of NASA's aeronautics programs in the future.

KEY ISSUES

Under the Administration's budget request for FY97, the AST program increases from $169 million to $187 million. Last year, the House authorized this program at $133 million (an $8 million increase from FY95). The VA/HUD/IA conference report [H. Rept. 104-353, November 17, 1995] restored a portion of the funding sought last year, which boosted the program to its current level ($169 million). Some have argued that the AST program invested in "applied research" which yields only incremental advances in mature technologies. These applied research areas enjoy the strong support of many aerospace companies. Once again, it comes down to the funding priorities. A high risk, basic research program like hypersonic research has received only $25 million a year, for five years, out of the Research and Technology Base.

PANEL 5—Human Exploration and Development of Space

The challenge facing this NASA strategic enterprise is the successful and timely construction of the International Space Station while undertaking significant management restructuring, including the initial steps toward substantially private operation of the U.S. Space Shuttle, the primary workhorse in Space Station assembly.

KEY ISSUES

Mr. Wilbur Trafton, NASA's Associate Administrator for the Office of Space Flight, testified that the International Space Station was on schedule despite a recently publicized concern with the Node 1 pressurization test. The test was delayed until the analytical model could be validated by a low pressure test, which was successfully conducted. Mr. Trafton noted NASA is entering the most critical stages of Space Station development in FY97, when most of the U.S. hardware elements are at the critical design and integration stage. He emphasized that performance to date has laid an excellent technical and business foundation for entering these critical phases, and expressed full confidence in NASA's ability to meet the technical and fiscal challenges that would be confronted in FY97 and FY98. **Mr. Kent Black,** Chief Executive Officer of the United Space Alliance (USA), testified that NASA recently novated its existing contracts with Lockheed Martin and Rockwell, transferring them, unchanged, to USA. This "early start" agreement was intended to assure continuity in Shuttle operations while full Space Flight Operations Contract (SFOC) negotiations proceeded between NASA and USA. The full SFOC contract amount, which is a subject of negotiations, was not disclosed during the hearing. **VADM Robert F. Dunn (retired),** representing NASA's Aerospace Safety Advisory Panel (ASAP), discussed the work of the ASAP with respect to NASA's restructuring and consolidation efforts.

PANEL 6—Outreach and Education

NASA interfaces with the broad, non-aerospace public in several ways, including its educational programs at universities and in grades K through 12 and with its technology transfer programs, which seek to apply federally-developed technologies to U.S. commercial interests. In recent years, questions have been raised about the effectiveness of both of these programs within NASA, including their ability to leverage non-NASA dollars and to maximize the return on program costs.

KEY ISSUES

Mr. Jim Pagliasotti, Executive Director of the Aerospace States Association (ASA), noted that this state government-based organization had developed an educational program that successfully leveraged state dollars to increase the private funding for space education in grades K-12. He argued that NASA does not do a very effective job of partnering with state and local governments to maximize the educational benefits of NASA's spending on space education because the agency sometimes leaves these government organizations out of its planning process and disproportionately focuses on school systems which are physically near one of NASA's regional centers. He recommended that Congress and NASA consider a pilot program to out-source some of NASA's educational programs, resources, and responsibilities to state-based organiza-

tions in a manner consistent with the current practice of transferring power from Washington back to the states. **Dr. Joel Snow,** Director of the Institute for Physical Research and Technology, testified about Iowa State University's (ISU) experience in managing large federal science programs and described the University's model for transferring technology from these programs to the private sector. According to information provided by Dr. Snow, the ISU has been much more effective in leveraging its research budget for commercial applications than NASA, largely because ISU takes a different approach than NASA. Dr. Snow suggested that NASA consider adopting the approach.

A Committee hearing on the U.S Global Change Research Program (USGCRP) was held on March 6, 1996, and panel 1 testified about the Mission to Planet Earth (MTPE) program. Although this hearing took place before release of the FY97 budget request, the issues raised were relevant to the program, especially since the funding profile of the program through FY00 is essentially unchanged.

Subcommittee on Technology

On April 16, 1996, the Subcommittee on Technology held a hearing to receive testimony regarding the Fiscal Year 1997 budget for the Technology Administration (TA) and the National Institute of Standards and Technology (NIST). The tragic death of Commerce Secretary Ron Brown forced the postponement of the previously scheduled field hearing at NIST. To lessen the burden on NIST's staff during this time of mourning, the hearing was rescheduled and consisted of a single panel with one witness, Dr. Arati Prabhakar, Director of NIST, accompanied by Mr. Gary Buchula, Deputy Undersecretary of TA.

Dr. Prabhakar, testified in support of the fiscal year 1997 budget request. She stated that two major factors are shaping our economy: globalization of the marketplace and the rapid pace of technological change. She testified because of these changes companies are shifting to narrower and more focused research and development, and smaller manufacturers are having a harder time keeping pace.

Dr. Prabhakar stressed the importance of the Office of Technology Policy and the Technology Administration because of their "unique" programs. She explained that NIST has four major programs: the laboratories which provide a common language measurement to support manufacturing and commerce, the Advanced Technology Program (ATP), the Manufacturing Extension Program (MEP), and the Malcolm Baldrige Quality Award Program. She stated that NIST receives only about 1 percent of the $70 billion the Federal Government spends on R&D. The requested funding for construction, she stated, is necessary to support NIST's basic research laboratory mission.

On May 16, 1995, the Subcommittee held an oversight hearing to examine the Federal Aviation Administration's (FAA) research and acquisition management. Although the FAA began efforts to modernize the Air Traffic Control (ATC) in 1981, limited progress has been made despite 14 years of efforts and the expenditure of several billion dollars. The FAA has historically been criticized for its bureaucratic, "process over substance" culture. The following

witnesses testified: Dr. Gerald L. Dillingham, Mr. Kevin P. Dopart, Dr. George L. Donohue.

Mr. Dillingham, Associate Director, Transportation and Telecommunications issues, GAO, testified regarding the problems in FAA's research and development programs. He addressed FAA's problems in developing and deploying systems in the R&D area, citing many examples of projects which are behind schedule and above budget. He spoke about FAA's recent reorganization of its R&D and acquisition programs, noting that the changes incorporate integrated products into the R&D process, but cautioned that the FAA has not included the end users in the process.

Mr. Dopart, Senior Analyst, Energy, Transportation and Infrastructure Program, Office of Technology Assessment, testified regarding OTA's study on *Federal Research and Technology for Aviation.* He spoke about the chronically delayed implementation of new technologies. He said, "Bridging cultural gaps is essential for effective Air Traffic Control development...FAA needs stronger and more stable leadership and R&D that is more operationally focused."

Dr. Donohue, Associate Administrator for Research and Acquisition, FAA, testified that FAA's RE&D activities were crucial in helping the U.S. develop the safest and most efficient aviation system in the world. He testified that the FAA is transforming its acquisition process by purchasing commercial items when possible. Dr. Donohue spoke of further changes required to equip FAA to fulfill its mission during the balance of this decade.

An Industry Perspective of Federal Aviation Administration Research & Development Programs

On December 7, 1995, the Subcommittee held a second oversight hearing regarding the FAA's acquisition management. According to the testimony provided, the major issues are FAA's long-standing internal management problems and cultural impediments to improving the acquisition process. Major improvements to the National Airspace System (NAS) will require fundamental changes in FAA's acquisition management. The following witnesses testified: Dr. John J. Fearnsides, Mr. Robert J. Stevens, Mr. J. Roger Fleming, Mr. Sigbert B. Poritzky, Dr. Robert E. Whitehead, Dr. Alan R. Thomas, Mr. William "Bud" Laynor.

Dr. Fearnsides, Senior Vice President and General Manger of the MITRE Corporation, testified that the FAA needs more than acquisition changes. He said FAA should examine its decision making process from the top management down and create an integrated product team in small steps. He stated that the FAA needs to bring technology into the field instead of just investing in it.

Mr. Stevens, of Loral Federal Systems, stated that his company is "absolutely on schedule" with the restructuring of the display system program. By October of 1998, he said, the new software and hardware will be operational at the Seattle test sight. He mentioned the need for Integrated Product Teams (IPT) to ensure quality from the top down.

Mr. Fleming, Senior Vice President of the Air Transport Association, testified that the FAA has no sense of urgency about the current problems it faces and, therefore, needs more accountability. Money is not the only problem; he stressed the FAA needs to direct

its resources to the highest priority programs. He also said the Administrator needs to take the initiative to eliminate unsuccessful programs. He suggested that the FAA simplify its regional establishments and make adjustments in its personnel and procurement procedures.

Mr. Poritzky, former member of the FAA R&D Advisory Committee, stated that decisions must be made hands on, in a timely manner by dedicated upper level management personnel using more than one element. He testified that it is imperative the FAA display a willingness to work together and innovate. To understand how the organization operates, he suggested qualified employees should be rotated to the different divisions to demonstrate how important team integration is to the accomplishment of work goals.

Dr. Whitehead, Office of Aeronautics—National Aeronautics and Space Administration (NASA), testified that the FAA and NASA are working jointly to develop technology for air traffic control. He stated that they are pursing environmental topics such as weather and noise reduction. He testified that for NASA to be an equal partner of the FAA, a clear, unified strategy needs to be established.

Dr. Thomas, of the National Oceanic and Atmospheric Administration, stated that the FAA needs to focus R&D on operation needs. He said if he could make changes at the FAA, he would use a quality management approach to give the customers what they want and address the internal coordination issue.

Mr. Laynor, National Transportation Safety Board, testified that his organization relies on FAA for information regarding R&D. He said the FAA needs to address issues as they arise instead of procrastinating. He also said that more planning should go into the budget, and that better coordination and stability in management is needed.

Federal Aviation Administration—Research, Engineering, and Development Fiscal Year 1997 Authorization and Management Reform

On April 18, 1996 the Subcommittee held a hearing to receive testimony regarding the President's fiscal year 1997 budget request for FAA Research, Engineering and Development (RE&D), and to review the management reform initiatives directed toward improving FAA's RE&D activities. The hearing consisted of one witness panel, including the Honorable David R. Hinson, Administrator, FAA and Dr. George L. Donohue, the Associate Administrator for Research and Acquisitions, FAA.

The Honorable David R. Hinson, Administrator, Federal Aviation Administration, testified that after reviewing the proposed bill he firmly believes that "the management and organizational changes made over the past year, in conjunction with the new acquisitions management system that went into effect on April 1st, fully address the Committee's concerns." He stated the first key to the new organization system is IPTs which bring together representatives from various disciplines. The second key is early involvement of customers and aviation representatives to help define, develop and implement requirements. The third key is the introduction of corporate level oversight mechanisms which include continual independent reviews and evaluations of all major acquisition programs. He also stated that the FY97 request for RE&D is $195.7 million—

a five percent increase above the FY96 appropriation. This amount, he said, will enable the FAA to continue R&D in several critical areas including aircraft and airport safety, air traffic control, and hazardous weather.

Dr. Donohue, Associate Administrator, Research and Acquisitions, Federal Aviation Administration, testified that significant progress has been made with the new acquisition management system. He noted progress in the area of requirements, and the simplified procurement procedures, as well as the cradle-to grave responsibility and accountability by IPTs. He stated that one of the "big cultural changes for the FAA is to try work their systems around what can be bought affordably, rather than to state their procedures and then have to develop something to meet their procedures." He testified that market surveys are now used to develop a listing of qualified vendors instead of having full and open competition which required a lot of staff time dealing with individuals who would like to become manufacturers, but had no demonstrated track record. The new management system, he stated, will enable the FAA to make a smooth transition from air traffic control to air traffic management.

IV. Committee Actions

Each subcommittee held authorization hearings for those programs under its jurisdiction. These hearings are discussed in the previous section. Subcommittee markups were not held in order to speed up the process and take advantage of House floor time available in early May.

The full committee marked up a committee print of the Omnibus Civilian Science Authorization Act on April 24, 1996. Original cosponsors include Chairman Walker, along with Subcommittee Chairs Sensenbrenner, Morella, Schiff and Rohrabacher. The committee print was adopted, as amended, by a roll-call vote of 24-19 and ordered reported, by voice vote, to the full House for consideration. A motion was then adopted to prepare a clean bill for introduction in the House, and that the measure be deemed reported by the Committee. Amendments to the committee print were offered in the following order:

1. *Amendment in the nature of a substitute* offered by Mr. Brown which included, among other things, authorizations for FY97 for the Department of Energy programs under the jurisdiction of the Science Committee at the President's request. Defeated—Roll Call—21-27.

TITLE I—National Science Foundation

2. *Amendment to develop a reorganization plan to reduce administrative costs* offered by Mr. Cramer. Mr. Cramer offered this amendment to increase funding for the Salaries and Expenses account and to request an NSF study on how to consolidate the directorates. No offsets were offered to counteract the increase in this account. Defeated—Roll Call—19-24.

3. *Amendment to rename the National Science Foundation and the National Science Board* offered by Mr. Barton. Mr. Barton offered an amendment to change the name of the National Science Foundation and the National Science Board to the National Science

and Engineering Foundation and the National Science and Engineering Board. Adopted—Roll Call—23-22.

TITLE II—National Aeronautics and Space Administration

4. *Amendment to cancel the space station* offered by Mr. Roemer. Mr. Roemer offered an amendment to cancel the space station program. Defeated—Roll Call—11-33.

5. *Amendment to reduce funding for the space station* offered by Mr. Roemer. Mr. Roemer offered an amendment to reduce funding for the space station program by $100 million. Defeated—Roll Call—12-32.

6. *Amendment to remove the provision prohibiting excess funds from being obligated to the Mission to Planet Earth Program (MTPE)* offered by Mr. Bartlett and Ms. Harman. Mr. Bartlett and Ms. Harman offered this amendment to delete a provision in the bill which prohibits funds in excess of those authorized to be obligated for MTPE. Adopted by voice vote.

7. *Amendment to implement certain recommendations of a 1995 National Research Council (NRC) study on the MTPE program* offered by Ms. Jackson-Lee. Ms. Jackson-Lee offered an amendment to implement all near-term components of EOS including Landsat 7, AM-1, PM-1, and TRMM, with no delay to the Chemistry-1 mission. Landsat 7, AM-1, TRMM, and PM-1 instruments are all provided for in the bill. Although the amendment contained no stated funding increases, implementation of this provision would require an additional $204.4 million be added to the MTPE program. This increase in the MTPE program would come out of Space Science, which would result in a $69.6 million reduction from the FY96 level. Defeated—Roll Call—17-27.

TITLE III—United States Fire Administration

There were no amendments offered to this title.

TITLE IV—National Oceanic and Atmospheric Administration

8. *Substitute amendment to restore the certification process for the Weather Service Modernization Program* offered by Mr. Cramer and Mr. Roemer. Mr. Cramer and Mr. Roemer offered an amendment to modify but keep the certification requirements for every National Weather Service (NWS) office under the Modernization Plan. This amendment would reestablish the certification requirements identified by the Department of Commerce Inspector General as costly and unnecessary. Defeated—Roll Call—17-20.

9. *Amendment to restore funding for the Global Climate Research Program* offered by Ms. Lofgren. Ms. Lofgren offered an amendment that would have fully funded NOAA's Global Climate Change Program at the President's request. The Chairman noted that this program has averaged a 10% growth rate per year since 1990 which is sufficient in order for the research to go forward. Funding in the bill is at the FY 1996 current level. Defeated—Roll Call—15-25.

10. *Amendment to remove the authorization cap placed on NOAA* offered by Ms. Rivers. Ms. Rivers offered an amendment that would eliminate Sec. 442(a) of the bill which places an overall limitation on the amount that can be spent on NOAA programs. The Chairman noted here that the cap has been increased $73 million above

the cap set last year, which leaves room for a number of programs. Defeated—Roll Call—18-25.

TITLE V—Environmental Protection Agency

11. *Amendment to Title V* offered by Mr. Graham. Mr. Graham offered an amendment which removes the prohibition on funding for the Experimental Program to Stimulate Competitive Research (EPSCOR). Adopted by voice vote.

TITLE VI—National Institute of Standards and Technology

12. *Amendment to authorize the Advanced Technology Program (ATP) and the Manufacturing Extension Partnership (MEP) program* offered by Mr. Tanner, Mr. McHale and Ms. Johnson. This amendment would have authorized such sums as may be available for the ATP and MEP programs within NIST in conflict with the FY 1996 Concurrent Budget Resolution and House-passed Commerce Dismantling Act. Mr. Sensenbrenner raised a point of order against the amendment and the Chair ruled the amendment out of order because it would expand the scope of Title VI and, therefore, was not germane to the Title.

TITLE VII—Federal Aviation Administration R,E & D

13. *Amendment to consolidate FAA R&D activities* offered by Mr. Tanner. Mr. Tanner offered an amendment that would consolidate the R&D activities of the Research, Engineering and Development account and activities of *"Engineering, Development, Test and Evaluation"* of the Facilities and Equipment account in one FAA R&D account, strengthen the role of FAA's outside advisory committee for R&D, and streamline the National Aviation Research Plan. Adopted by voice vote.

TITLE VIII—National Earthquake Hazards Reduction Program

There were no amendments offered to this section.

TITLE IX—Miscellaneous

There were no amendments offered to this section.

14. *Amendment to add a new Title X* offered by Mr. Tanner. Mr. Tanner offered the same amendment that was offered previously to Title VI as a new Title X. Defeated—Roll Call—21-21.

*Mr. Davis offered report language similar to an amendment he offered last year in an Energy and Environment Subcommittee markup which would allow the Science Committee to later adjust FY 1997 authorizations consistent with the Congressionally-passed conference report on the FY 1997 Concurrent Budget Resolution. Adopted by voice vote.

V. Summary of Authorizations and Major Provisions of the Bill (By Title)

Title 1—National Science Foundation

Title I of H.R. 3322, the National Science Foundation Authorization Act of 1996, authorizes appropriations for the major activities and budget categories of the NSF for FY 1997. In addition, the bill establishes new requirements for NSF preparation of a strategic plan; eliminates one or more of NSF's directorates; places a funding ban on institutions which receive appropriations earmarks; requires options for a 10% reduction in the proportion of federal indirect costs; prohibits expenditure of unauthorized funds for con-

struction of major national research facilities; subjects temporary NSF employees to the same financial disclosure requirements as permanent employees; directs NSF to consider the impact of research grants on undergraduate science education; and redesignates the Critical Technologies Institute as the Science Studies Institute, with a redefined mission, and places limits on NSF funding.

Title I of H.R. 3322, as amended, authorizes appropriations to NSF for FY 1997 in the amount of $3,250,500,000 as follows:

Budget Activities—Authorizations Fiscal Year 1997

RESEARCH AND RELATED ACTIVITIES:	$2,340,300,000
SUBTOTAL	$2,340,300,000
Education and Human Resources	600,000,000
Major Research Equipment	80,000,000
Academic Research Facilities Modernization Program	100,000,000
Salaries and Expenses	120,000,000
Office of the Inspector General	5,000,000
NSF Headquarters Relocation	5,200,000
TOTAL	3,250,500,000

The major provisions of the title are as follows:

Title I of H.R. 3322, as amended, imposes new requirements on the NSF for long-range program planning and organization. The NSF Act of 1950 is amended by transforming the existing NSF annual report to Congress into a 3-year strategic plan to be updated annually. In addition, NSF is required to prepare and submit annually to Congress a 5-year plan for new construction, repair, and upgrades to National Research Facilities. The bill prohibits obligation of funds appropriated for national facilities costing in excess of $50 million, unless the project for which the funds are to be expended has been explicitly authorized.

The major provisions of the title, as reported by the Committee: provides authorizations for one year (fiscal year 1997); specifies that $3.2505 million is authorized to be appropriated for the NSF programs in fiscal year 1997; transforms the existing NSF annual report to Congress into a three-year strategic plan to be updated annually; requires an annually updated 5-year plan for new construction, repair, and upgrades to NSF-funded national research facilities; and prohibits obligation of unauthorized funds appropriated for national facilities costing in excess of $50 million. Further, the name of the National Science Foundation is amended to become the National Science and Engineering Foundation, and the National Science Board to be renamed the National Science and Engineering Board.

Title II—National Aeronautics and Space Administration

On March 19, 1996, the President transmitted to Congress a request of $13,804,200,000 for NASA for FY97. The Committee recommends an authorization level of $13,495,500,000.

The major provisions of the bill are the following:

Authorizes appropriations for all NASA programs;

Authorizes appropriations for the Office of Commercial Space Transportation and the Office of Space Commerce;

Requires the NASA Administrator to report on projected restructuring activities, by fiscal year, and the President to submit a proposal for enabling legislation to carry out actions in the Administrator's report;

Amends the Commercial Space Launch Act to establish a statutory framework for the Office of Commercial Space Transportation to license commercial reentry activities;

Requires the NASA Administrator to submit a market study to Congress on how commercial ventures can supply, use, service or augment the International Space Station;

Creates procurement initiatives to encourage NASA to take advantage of innovations in the private sector;

Encourages NASA to purchase space science data from the U.S. private sector instead of building complete systems to generate the data;

Requires the NASA Administrator to submit a detailed report on Mission to Planet Earth; to acquire earth science data from the U.S. private sector; and to conduct a study on how the baseline scientific requirements of MTPE can be met by the U.S. private sector;

Requires the NASA Administrator to prepare for the potential privatization of the Space Shuttle program;

Establishes the Office of Space Commerce within the Department of Commerce with details on the Office's primary responsibilities;

Requires the NASA Administrator to, where cost effective, award one or more contracts for microgravity parabolic flight services to a microgravity flight provider; and

Establishes the position of Procurement Ombudsman at NASA to review new NASA missions to determine if they can be provided by U.S. commercial providers and to serve as a point of contact for contractors (procurement contracts) and for U.S. commercial providers (issues relating to competition from the federal government).

Title III—United States Fire Administration

Title III authorizes appropriations for the activities of the United States Fire Administration and the National Fire Academy for FY 1997.

Title III amends section 31 of the Federal Fire Prevention and Control Act. This section requires the installation of hard-wired smoke detectors in all multifamilty housing owned or operated by the federal government by October 25, 1995. H.R. 3322 extends this deadline for three years for housing controlled by the Department of the Army.

Title III requires the Administrator to inform the Congress 60 days prior to terminating or privatizing any USFA activities or programs.

Finally, title III directs the Administrator to submit a detailed report, three months after enactment, on what, if any, programs will be reduced or eliminated in order to meet the final appropriations levels.

Title IV—National Oceanic and Atmospheric Administration

Title IV of H.R. 3322, the National Oceanic and Atmospheric Administration Authorization Act of 1996, authorizes all unauthorized NOAA programs within the Committee's jurisdiction for fiscal year 1997. Title IV of H.R. 3322 holds the authorization for NOAA's Op-

erations, Research and Facilities (ORF) Account to $1,765,359,000 for FY1997. This level is consistent with the glide-path necessary to attain a balanced budget by 2002.

In March of 1996, the President transmitted to Congress a request of $2.11 billion for NOAA for fiscal year 1997, an increase of $15.7 million—or 8%—over the fiscal year 1996 estimate of $1.95 billion.

The Committee recommends an authorization level of $1,794,929,000 for fiscal year 1997, a decrease of $315,799,000 from the request level, and a decrease of $158,475,000 from the fiscal year 1996 estimate.

The major provisions of Title IV are as follows:

Authorizes appropriations for the National Oceanic and Atmospheric Administration (NOAA) for fiscal year 1997;

Authorizes the Advanced Weather Interactive Processing System (AWIPS) to completion;

Gives the Secretary of Commerce the authority to contract out for data and days-at-sea;

Terminates 19 programs and accounts;

Reforms and authorizes the National Sea Grant College Program;

Requires the Secretary to submit a report to Congress certifying that all programs and accounts listed to be terminated will be terminated by September 30, 1996;

Does not authorize funding for any fiscal year after 1997 for carrying out programs authorized under this Act;

Eliminates the NOAA Corps after fiscal year 1996;

Prohibits unauthorized persons from interfering with any National Data Buoy Center weather data buoys; and authorizes the Administrator to assess a penalty for each violation and to offer and pay rewards for information regarding violations;

Delineates the duties of the National Weather Service;

Stipulates that the National Weather Service will not compete with the private sector when a service is provided, or can be provided, by commercial enterprise, unless the Secretary finds that the private sector is unwilling or unable to provide the service, and the service provides vital weather warnings and forecasts; and

Requires the Secretary to submit a report to Congress detailing all National Weather Service activities which do not conform to the requirement and outlines a timetable for their termination.

Title V—Environmental Protection Agency

Title V authorizes appropriations for environmental research, development, and demonstration activities of the Environmental Protection Agency for FY 1997, including all programs, except Superfund, of the Office of Research and Development, and the following other programs funded under the Science and Technology Appropriations account: National Vehicles and Fuels Emission Laboratory, National Radiation Laboratories, Analytical and Environmental Chemistry Laboratories, Drinking Water Program Laboratory, and National Enforcement Investigations Center.

Title V directs authorizations for general and specific research under EPA and sunsets all programs authorized by the Act after FY 1997.

Title V assigns scientific research review responsibilities to the Assistant Administrator of EPA and requires the Assistant Administrator to report to the Administrator of the EPA, the House Science Committee and the Senate Committee on Environment and Public Works annually on all agency research which is not of high quality or is duplicated by other Agency research.

Title V requires the EPA Administrator to ensure that any fellowship award to a student selected after the date of enactment is used only to support Office of Research and Development research in fields in which there exists, or there is projected to exist, a shortage in the number of scientists.

Title V requires: (1) the Science Advisory Board (SAB) to submit to Congress and to the Administrator a report on the Board's views on proposed research programs as described in the President's budget for research, development and demonstration activities of the EPA; (2) the SAB to select and conduct evaluations of planned research development and demonstration activities of the EPA; (3) the SAB to annually review research activities of the EPA and include results in the report; and (4) the Administrator to submit to Congress any report required to be submitted to the Administrator by the SAB. Such submissions shall be made no later than 60 days after the Administrator receives the report.

Title VI—National Institute of Standards and Technology

Title VI authorizes appropriations for the Scientific and Technical Research and Services (STRS) and Construction of Research Facilities (CRF) accounts of the National Institute of Standards and Technology (NIST). For Fiscal Year 1997, $280.6 million is authorized for the NIST STRS account and $105.240 million is authorized for the NIST CRF account.

Title VII—Federal Aviation Administration, R,E&D

The major provisions of the bill accomplish the following:

- Authorize of appropriations for Federal Aviation Administration Research, Engineering, and Development (RE&D) activities;
- Authorize of appropriations for other Federal Aviation Administration research, engineering, and development activities described in the President's fiscal year 1997 to the Congress under the category *"Engineering, Development, Test, and Evaluation"* of Facilities and Equipment;
- Mandate guiding principles for conducting Federal Aviation Administration research, engineering, and development activities;
- Require the Federal Aviation Administration to consolidate all its research and development activities in to a single budget account;
- Strengthen the role of the Federal Aviation Administration RE&D advisory committee in setting priorities for the annual budget request; and
- Restructure the annual National Aviation Research Plan requirements.

Title VIII—National Earthquake Hazards Reduction Program

Title VIII authorizes appropriations for the activities of the National Earthquake Hazards Reduction Program for FY 1997.

Title IX—Miscellaneous

Title IX contains three sections. The first section deals with language on prohibition of lobbying activities; the second section deals with limitation on appropriations for fiscal year 1997 and succeeding fiscal years, and the third section deals with eligibility for agency award grants.

VI. Section-by-Section Analysis and Committee Views

Title I—National Science Foundation

NATIONAL SCIENCE FOUNDATION FY 1997 BUDGET REQUEST SUMMARY

[In millions of dollars]

ACCOUNT TITLE	FY 1996 Estimate	FY 1997 Request	FY 1997 Auth.
Research and Related Activities	2274	2472	2340.3
Education and Human Resources	599	619	600
Major Research Equipment	70	95	80
Academic Research Facilities Modernization	100	0	100
Salaries and Expenses	127.3	*134	120
Office of Inspector General	4.5	5	5
Headquarters Relocation	5.2	—	5.2
TOTAL	3180	3325	3250.5

*Includes $5.2 million for HQ Relocation.

Sectional Analysis

Sec. 101. Short Title.

Entitles the Title the "National Science Foundation Authorization Act of 1996."

Sec. 102. Definitions.

Section 102 defines: (1) "Director" as the Director of the Foundation; (2) "Foundation" as the National Science Foundation; (3) "institution of higher education" as the term in section 1201(a) of the Higher Education Act of 1965; (4) "national research facility" as a research facility funded by the Foundation which is available for use by all scientists and engineers affiliated with research institutions located in the U.S.; (5) "United States" as the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of Northern Mariana Islands, and any other territory or possession of the United States.

SUBTITLE A—NATIONAL SCIENCE FOUNDATION AUTHORIZATION

Sec. 111. Authorizations of Appropriation

(a) Congress finds that (1) the programs of the Foundation are important to the nation; (2) the primary mission of the Foundation continues to be the support of basic research and science education; and (3) the Foundation's contribution to the United States' economic competitiveness should be in accord with its primary mission.

(b) Authorizes $3,250,500,000 for FY 1997 of which; (1) $2,340,300,000 is for Research and Related Activities; (2)$600,000,000 is for Education and Human Resources Activities; (3) $80,000,000 is for Major Research Equipment; (4) $100,000,000 is for Academic Research Facilities Modernization; (5) $120,000,000

is for Salaries and Expenses; (6) $5,000,000 is for Office of Inspector General; and, (7) $5,200,000 is for Headquarters Relocation.

(c) Funds appropriated under subsection (b)(1) of this section shall be available

to not more than six scientific directorates.

Sec. 112. Proportional Reduction of Research and Related Activities Amounts

Specifies if the amount appropriated pursuant to the authorization is less than the amount authorized, each directorate shall be reduced by the same proportion.

Sec. 113. Consultation and Representation Expenses

Not more than $10,000 may be used in each fiscal year for official consultation, representation, or other extraordinary expenses at the discretion of the Director.

Sec. 114. Reprogramming

(a) The Director may transfer appropriated funds among the subcategories of Research and Related Activities, so long as the transfer does not exceed $500,000.

(b) The Director may propose a transfer among the subcategories exceeding $500,000 provided Congress receives proper notification and after a 30 day period.

SUBTITLE B—GENERAL PROVISIONS

Sec. 121. Annual Report

Amends Section 3(f) of the National Science Foundation Act of 1950 so that: The Foundation provides an annual report to the President which shall be submitted by the Director to the Congress when the President submits his annual budget. The report shall—(1) contain a strategic plan, or an update to a previous strategic plan, which defines for a three-year period the overall goals for the Foundation, including specific goals for each major activity of the Foundation and each directorate and the polar programs office and describes how the identified goals relate to national needs and will exploit new opportunities in science and technology; (2) identify the criteria and describe the procedures which the Foundation will use to assess progress toward achieving goals; (3) review the Foundation's activities during the previous year, summarize activities planned for the next three years, with emphasis on planned contributions to major multi-agency research and education initiatives; (4) contain such recommendations as the Foundation considers appropriate; and, (5) include information on the Foundation's acquisition and disposition of any patents or patent rights.

Sec. 122. National Research Facilities

Stipulates that the Director shall provide to Congress, annually, a plan covering a five year period for construction of, repair and upgrades to, and operations and maintenance costs for, national research facilities. Only funds which are specifically authorized to be appropriated shall be obligated for any project of new national research facilities, unless the total estimated cost is less than $50,000,000.

Sec. 123. Eligibility for Research Facility Awards

Requires that for the Academic Research Facilities Modernization Program, the Director give priority to institutions or consortia that have not received such funds in the preceding 5 years, except for previous funding received for the same multi-year project.

Sec. 124. Administrative Amendments

Amends sections of the National Science Foundation Act of 1950, the National Science Foundation Authorization Act of 1976, and the National Science Foundation Act of 1988 for administrative and technical purposes.

Sec. 125. Indirect Costs

Stipulates that matching funds required of the Academic Research Facilities Modernization Act of 1988 shall not be considered facilities costs for purposes of determining indirect cost rates. Also, the Office of Science and Technology Policy (OSTP), and other relevant agencies such as Office of Management and Budget (OMB), National Institutes of Health (NIH) and Office of Naval Research (ONR), shall report to the Congress on how to reduce by ten percent the Proportion of Federal research funds used for indirect costs by institutions of higher education.

Sec. 126. Financial Disclosure

Requires persons temporarily employed by or at the Foundation to be subject to the same financial disclosure requirements under the Ethics in Government Act of 1978 as are permanent employees of the Foundation.

Sec. 127. Educational Leave of Absence for Active Duty

Stipulates that, in order to be eligible to receive a grant, an institution of higher education must provide a member of the National Guard or other reserve component of the Armed Forces called or ordered to active duty to be restored to the educational status they had attained prior to their being ordered to military duty without loss of academic credit, scholarships, or tuition and other fees.

Sec. 128. Science Studies Institute

Redesignates the Critical Technologies Institute as the Science Studies Institute, disestablishes the CTI operating committee; and modifies the duties of the new Institute.

Sec. 129. Educational Impact

Requires the NSF to consider the impact of any grant on the undergraduate and graduate education at an institution, when considering a grant request. This will apply to all awards after September 30, 1997. The Director shall provide a plan to the Congress for the implementation of this section by December 31, 1996.

Sec. 130. Divisions of the Foundation

Requires the Director to maintain not more than six Assistant Directors and transmit to Congress a report by November 15, 1996 on the reorganization of NSF resulting from this provision.

Sec. 131. National Science and Engineering Foundation

The National Science Foundation and the National Science Board are hereby renamed as the National Science and Engineering Foundation and the National Science and Engineering Board, respectively.

Committee Views

The Future of the National Science Foundation

The Committee on Science strongly asserts that the mission statement for the NSF as contained in section 3 of the NSF Act of 1950 requires that the NSF continue its focus in support of basic research and education in science and engineering. The Committee further asserts that the NSF mission may be altered only by amendment of the NSF Act of 1950, and consequently, the Committee expects the NSF's programs and activities to conform to the functions authorized by the 1950 Act, as amended.

The Committee's purpose in section 121 of the bill, which establishes the requirement for an annually updated strategic plan, is to (1) clarify the connections between NSF programs and national needs, and (2) identify the criteria and procedures that the Foundation will use to assess the progress and achievements of its research and education programs. The Committee intends that the evaluation criteria identified be consistent with the assessment of research programs which have multi-year lifetimes associated with fundamental research. The Committee understands that methodology for assessment of basic research is not well established, but strongly believes that the NSF must make every effort to develop methodology that will provide a sound basis for justifying current and future Federal support for the NSF, as required by the Government Performance and Results Act (PL 103-62).

Academic Research Facilities

The Committee notes that the President's budget request for fiscal year 1997 provides no funds for academic infrastructure improvement, compared with the Congress' appropriation of $100 million in fiscal year 1996. The Committee is deeply concerned that the Administration has proposed terminating the ARI account. By moving the instrumentation portion of the account into the RR&A account, not only does this in effect over state the Administration's research proposal, the Administration does not propose any other remedies for facilities modernization backlog estimated at up to $10 billion. The Committee feels support of this program has continued merit.

Title I authorizes $100 million for the NSF Academic Research Facilities Modernization Program for fiscal year 1997. This program is consistent with the Foundation's major role in support of research at institutions of higher education and justified in light of the academic facilities problem. The Committee continues to support the creation of an interagency program.

The Committee notes that of the total amount requested for NSF's Academic Research Infrastructure activity, only one half is designated for the Academic Research Facilities Modernization Program, with the remainder allocated for major research instrumentation. The Committee supports the rationale for the instrumentation program, but does not accept that funds allotted for the instrumentation program contribute to meeting the goals of the facilities program. The authorizations in the title for improvement of academic facilities are explicitly for the Academic Research Facilities Modernization Program established by Public Law 100-570.

The Committee is also concerned that NSF's biennial survey of academic research facilities needs, mandated by Public Law 99-159,

has not focused adequately on the needs of undergraduate institutions. The Committee reminds NSF that undergraduate institutions are included among the categories of institutions eligible for awards under the Academic Research Facilities Modernization Program. The Committee expects future biennial surveys to provide data on the needs of all categories of institutions eligible to participate in the Academic Research Facilities Modernization Program.

The Committee recognizes that NSF alone should not have to provide the federal share of academic research infrastructure improvement. Many federal agencies support academic research and all must contribute to facilities improvement. The Committee strongly urges the Office of Science and Technology Policy to take the lead in organizing and initiating a coordinated federal response to the facilities problem. Modification of the R&D and other tax credits should also be explored as a way to encourage private sector investment in academic infrastructure.

National Research Facilities

The Committee has included the requirement in section 122 of the bill for an annual national facilities report in order to track the full costs of facilities construction, operations and maintenance, and for a multi-year plan for projected capital costs and construction milestones. The Committee believes that the process implied by NSF's establishment of the Major Research Equipment (MRE) activity will contribute to the preparation of the formal facilities plan requested by the bill. As the current MRE account decreases with the phase-down of funding for the Laser Interferometer Gravitational Wave Observatory (LIGO), funding for any new approved major construction projects should be made available out of other NSF resources, but through the MRE account.

Undergraduate Education

The Committee continues to be concerned that federal research grants to colleges and universities have shifted the focus of faculty away from one of their primary obligations—undergraduate teaching. Federally funded research should enhance, not detract from, the educational experience of undergraduate and graduate students. The Committee believes that the NSF and other federal agencies must do more to ensure that federal grants are indeed improving the quality of science and engineering education at our nation's colleges and universities.

The bill requires the NSF to submit a report to the Committee by December 31, 1996 describing what actions the agency will take to ensure that educational impact is a factor in awarding grants. The report should describe in detail the actions the agency will take, and how and when they will be implemented. Educational impact must be a factor in award-making by no later than the beginning of fiscal year 1998. Additional requirements placed on NSF applicants should be enforceable and should be significant enough to produce a noticeable improvement in the commitment to education at colleges and universities.

Competition with Private Laboratories

The Committee is pleased to note that the Grant General Conditions Guide now includes reference to Important Notice 91. However, the language in the guide should clearly articulate the posi-

tion of the Foundation as stated in the Grant Policy Manual: "It is contrary to NSF's intent for grantees to use NSF-supported research instrumentation or facilities to provide services for a fee in direct competition with private companies that provide equivalent services."

Computer Security

The Committee notes that the use of the Internet and other computer networks is growing at an unprecedented rate, with 500 million users expected to be on-line by the year 2000. As these networked systems become larger and more complex, however, the frequency and severity of unauthorized intrusions into computers connected to these networks has become an increasingly serious problem. Unless the associated risks and vulnerabilities are properly addressed, the full potential of networking will not be realized.

The National Science Foundation is turning over the principal responsibility for providing network information services for the academic and research communities to the private sector. The Committee strongly supports this development. Nevertheless, traditional security measures will not be sufficient to assure that valuable or sensitive information stored or processed on computer networks will not be lost, stolen, corrupted or misused. The Committee encourages NSF to continue collaborating with the Software Engineering Institute's Computer Emergency Response Team (CERT) Coordination Center and other government agencies to raise the awareness of security issues among service providers so that security becomes a standard business practice. By implementing enhanced security practices at the network access point and service provider levels, CERT and the NSF will reach a wide set of end users and will also make the Internet a more viable medium for the security conscious end user community.

U.S. Antarctic Program

The Committee recognizes the unique value of the research activities supported under the U.S. Antarctic Program (USAP) managed by NSF and understands that these activities are possible only because of the critical logistical support provided, on a reimbursable basis, by the Department of Defense (DOD) through the Navy. The Committee is aware that the DOD is considering terminating some of the logistical support it has historically provided and has recommended that the NSF seek alternative means of support, possibly from the private sector.

The Committee supports changes in the current arrangements for logistical support for the USAP if they result in improved efficiency, cost savings or other tangible benefits to the USAP. The Committee would object to any change which would degrade the safety of Antarctic operations or significantly reduce the level of support service available for research activities. In particular, the Committee would view the withdrawal of the DOD from aircraft operations and support as an extremely serious step that should not be undertaken unless it can be satisfactorily documented that alternative organizations exist which can provide this nation with the capability to maintain an active and influential presence as well as meet the high standards for training, air crew proficiency, and aircraft maintenance which have characterized the Navy's

flight activities in Antarctica. The Committee expects the DOD to continue to provide, on a reimbursable basis, air operations support for the USAP until such time as the Committee has received assurance that the DOD's withdrawal is in the best interests of the USAP.

The Committee has been, and remains, a strong supporter of the U.S. Antarctic Program. The Committee recognizes the need for this nation to retain an active and influential presence on the continent. This presumes that Presidential Memorandum 6642 still represents the Administration's policy with respect to the funding, operation and management of the U.S. Antarctic Program. In that light, the Committee applauds the Foundation's long standing support and management of this important national program.

A number of important issues continue to face this program and are likely to increase in significance over the next few years. Within the authorization of the Major Research Equipment account, $25 million is available for appropriation to the South Pole Safety Project. The Committee shares NSF's concern for safety of personnel and the protection of the environment. The Committee is awaiting the Administration's report on the future of the U.S. Antarctic Program, and expects to review this report in detailed oversight hearings this year.

Financial Disclosure

To avoid any appearance of conflict of interest, the Committee expects all personnel, temporary and permanent, to fully comply with the Ethics in Government Act and Financial Disclosure requirements.

Educational Leave of Absence for Active Duty

The Committee believes service to the Nation's armed forces is commendable. Furthermore, the Committee believes a member of the armed services should not be financially harmed because that member is ordered to active duty.

Grant Review Process

The Committee demands that use of taxpayers' federal revenues be maximized to the greatest extent. Should a grant be awarded which duplicates or competes with work done by the private sector, and this is brought to the attention of the Director in a timely manner, the Director is responsible for taking appropriate action to end this conflict.

The Committee is aware that the Foundation has extensive merit review and appeal procedures to guide the Foundation, potential principal investigators, and their institutions through the proposal and grant process. However, the Committee is concerned that NSF lacks a formal mechanism to review and act accordingly on substantive concerns which may be raised after an award is made. In the Committee's view, substantive concerns might include clear duplication of research already performed, or support for an activity that results in unfair competition with a service or activity provided by the private sector. The Committee, therefore, directs NSF to review and develop an appropriate set of procedures to be employed to handle and remedy such claims. The Committee requests NSF to submit a report to the Committee outlining its procedures by December 31, 1996.

Duplication of Federal Resources

The Committee notes that the Department of Energy programs dealing with generic pre-college education, teacher and university faculty training, science literacy, scientific and technical manpower development, university instrumentation support and fellowship programs (such as the Albert Einstein Distinguished Educator Fellowship) are overlapping with and duplicative of efforts of the National Science Foundation. In H.R. 1816, the Department of Energy Civilian Research and Development Act of 1995, the Committee recommended the termination of these programs. The Committee directs NSF to review the phase-out of these DOE programs and to consider adopting those programs or aspects of those programs that are worth continuing. The Director is encouraged to work with the Secretary of Energy to reach an agreement that will make available the Department's facilities for Foundation support of any of these generic activities, on a reimbursable basis, that are consistent with the Foundation's mission.

The Science Studies Institute

The Committee believes that reconstituting and renaming the Critical Technologies Institute as the Science Studies Institute (SSI) reflects a more proper and appropriate role.

Further, the Committee intends for the budget support of SSI to be multi-agency. For FY 97, the Committee believes OSTP should further reduce NSF's share as other agencies provide support for SSI. Beginning with the President's budget for FY 1998, funding requests for SSI should be included as part of OSTP's request.

Affirmative Action

The Committee is aware that the NSF has recently come under strong criticism and litigation for its conduct, or the conduct of its contractors/grantees, of one program designed to increase the number of minorities in science. While the Committee continues to support the overall goal of such programs, it does not condone discrimination in any form. In particular, the Committee does not support the use of race, sex, color, ethnicity, or national origin as the sole criterion for granting preferential treatment for admission to NSF-sponsored research or education programs.

The NSF currently spends approximately $80 million dollars annually to support encouraging participation of women and minorities in science, engineering, and math. In keeping with the tradition of the Foundation, where merit is the standard for evaluating proposals, the Committee expects the Foundation to critically review these programs to ensure merit is also of over-riding importance in their administration.

The Committee will closely monitor the NSF's response to last year's U.S. Supreme Court decision in Adarand Constructors v. Pena, the Administration's review of affirmative action programs, and the NSF's response to ongoing litigation in these matters to determine if the NSF is fully complying with the law and the Committee's guidance prohibiting discrimination.

Reorganization of NSF

The Committee is aware that NSF has been evaluating its management organization as part of the National Performance Review. The management organization necessary to accomplish NSF's mis-

sion to support basic scientific and engineering research and education should be re-evaluated not only in light of the probable out year funding profile, but also the changing requirements of NSF's "customer"—the basic research and education community.

As shown in the President's out-year projections, provided to the Committee by NSF, the agency proposes reducing salaries and expenses to a greater degree than the FY 96 Congressional budget resolution recommendations.

PRESIDENTIAL POLICY BUDGET AUTHORITY

[in millions of dollars]

BUDGET AUTHORITY	FY 1997	FY 1998	FY 1999	FY 2000
Research and Related Activities (054)	63	58	53	47
Research and Related Activities (251)	2,409	2,415	2,421	2,428
SUBTOTAL	2,472	2,473	2,474	2,475
TOTAL, RRA	2,472	2,473	2,474	2,475
Academic Research Infrastructure	0	0	0	0
Major Research Equipment	95	95	95	95
Education and Human Resources	619	619	619	619
Salaries & Expenses	129	118	107	101
*Relocation Expense	5	5	5	5
Office of Inspector General	5	5	4	4
TOTAL, DISCRETIONARY	3,325	3,315	3,304	3,294

*In the President's request, Relocation is included in the Salaries and Expenses account.

The Committee urges NSF to focus more of its future management resources at the levels closest to the customer and, therefore, is limiting the number of Assistant Directors to not more than six (a decrease of one from the current number). The Committee directs the Director, in consultation with the National Science Board, to deliver a report, including reprogramming requests, to the Committee by November 15, 1996, on how it intends to reorganize its management structure to accomplish its mission in the 21st Century.

In evaluating and restructuring the NSF, the Committee has given discretion to the Director, requiring only that he report his reorganization plan to the Congress by November 15, 1996. However, the Committee urges the Director to look to the current Social, Behavioral and Economics (SBE) Directorate to determine if its current program level reflects sound priorities within overall science funding. The Committee is concerned that, while the activities and proposals of SBE are merit reviewed, as are other programs of the NSF, they appear to reflect trends toward support of more applied research and research in areas, that in tight budget times, are of a lower scientific priority. As the newest and smallest Directorate, and one whose research areas are cross-cutting, SBE is a candidate for integration into other research Directorates. SBE programs should directly compete for research funds with other disciplines to assure that scarce research dollars are allocated in the national interest.

Two Year and Community College Programs

The Committee commends the Foundation for improving the education of science and engineering technicians at two-year and community colleges under the authority of P.L. 102-476. The Committee supports the efforts of associate degree-granting institutions

working in partnership with secondary schools, colleges and universities and with business and industry to develop more support for these programs and to put in place appropriate mechanisms to assess the effectiveness of the programs.

Indirect Cost

The Committee continues to be concerned that too great a share of academic research funds may be allocated to indirect costs. According to the President's budget, fully one-quarter of the $12 billion the government spends on research at universities and colleges are used to cover indirect costs. While the government has a responsibility to reimburse that portion of the overhead directly associated with carrying out federally sponsored research, the Committee is concerned that the current system of indirect cost payments is consuming too large a share of a limited research budget.

The bill directs the Office of Science and Technology Policy (OSTP) to develop a menu of options to reduce by at least 10 percent the proportion of Federal assistance to universities that is allocated for indirect costs, and to reduce the variation among indirect cost rates at different institutions. The report should also evaluate the benefits and other impacts that each option would have on colleges and universities. OSTP should work with other relevant agencies, particularly the Office of Management and Budget, the Office of Naval Research, the Department of Health and Human Services, and the National Institutes of Health in preparing the report. The report is due by December 31, 1996.

The Committee understands that negotiations have been underway between the Administration and representatives of universities to limit indirect cost payments. The Committee encourages the Administration to move as quickly as possible to finalize an indirect cost system that would achieve the goals referenced in this report. The Committee believes that any resultant savings in indirect cost payments should be used to increase overall federal research support.

Experimental Program to Stimulate Competitive Research (EPSCoR)

Since its inception, EPSCoR has made great strides toward developing the research infrastructure of the participating states. The Committee supports the program because future private-sector economic development depends upon scientific and technical infrastructure.

EPSCoR contributes to increasing regional and institutional research capacity by ensuring that money is available for merit-based awards for proposals from states with a developing research base. EPSCoR offers the mechanism to help institutions in these states improve their competitive positions in selected research specialties and fields, including the development of the infrastructure necessary to sustain these new capabilities. Progress in building new research capability does not occur overnight, but results from long-term investments in people and facilities. Consequently, the Committee expects continued NSF participation in EPSCoR and continued leadership from NSF to encourage both cooperation among the departments and agencies supporting EPSCoR programs and ad-

herence to the important infrastructure components of the original efforts.

Renaming the National Science Foundation and National Science Board

In 1985, Congress adopted amendments to the Foundation's Organic Act which expanded the agency's mission in regard to engineering research and education and incorporated specific references to "engineering" in the body of the statute wherever "science" was referred. These amendments were intended to compel the Foundation to redress its historic inattention to engineering education and research. The 1985 amendments have had precisely the effect that Congress intended; the agency's attention to engineering has accelerated since that time.

It is not the Committee's intent by the name changes to signal any change in the Foundation's current mission, nor to diminish the visibility of science. On the contrary, renaming the Foundation and the Board are intended to stimulate greater intellectual partnership between science and engineering and to provide engineering with the opportunity to share in the respect and prominence currently granted to science.

Informal Science Education

The Committee is concerned about the proposed 27.8 percent reduction in the funding of Informal Science Education. The Committee has long been supportive of these programs, which provide a way to reach young people who are often overlooked by school programs. The Committee understands that the Foundation must define its priorities in this budget climate, but that should be done without causing undue harm to succeseful programs. Therefore, the Cowmittee requests that the Foundation submit, with its fiscal year 1997 operating plan, a report describing the impact the cut in Informal Science Education will have on the ability of science and technology museums to carry out their work.

Title II—National Aeronautics and Space Administration

FY97 NASA Authorization

ACCOUNT	FY96 est.	FY97 Req.	FY97 Mark	FY97 Diff.	FY96 Diff.
HUMAN SPACE FLIGHT	**5456.60**	**5362.90**	**5362.90**	**0.00**	**-93.70**
Space Station	1863.60	1802.00	1802.00	0.00	-61.60
Mir Support (w/i $2.1B cap)	29.20	38.20	38.20	0.00	+9.00
Shuttle Operations	2485.40	2514.90	2514.90	0.00	+29.50
Shuttle Upgrades	663.40	636.00	636.00	0.00	-27.40
Payload & Utilization	315.00	271.80	271.80	0.00	-43.20
U.S./Russian Cooperation	100.00	100.00	100.00	0.00	0.00
SCIENCE, AERO AND TECH	**5845.90**	**5862.10**	**5734.80**	**-127.30**	**-111.10**
Space Science	**2032.60**	**1857.30**	**2167.40**	**+310.10**	**+134.80**
AXAF	237.60	178.60	178.60	0.00	-59.00
Cassini	191.50	106.70	106.70	0.00	-84.80
GP-B	51.50	59.60	59.60	0.00	+8.10
Payload/Instrument Dev.	30.70	16.90	32.50	+15.60	+1.80
Astro-E	7.40	5.60	5.60	0.00	-1.80
Mars Instruments	1.40	0.60	0.60	0.00	-0.80
Shuttle/International Payloads	16.20	10.70	26.30	+15.60	+10.10
Tethered Satellite System	5.70	0.00	0.00	0.00	-5.70
Explorers	132.20	135.00	160.00	+25.00	+27.80
ACE	31.50	24.70	24.70	0.00	-6.80
FUSE	39.00	39.60	39.60	0.00	+0.60

FY97 NASA Authorization—Continued

ACCOUNT	FY96 est.	FY97 Req.	FY97 Mark	FY97 Diff.	FY96 Diff.
MIDEX	0.00	19.80	19.80	0.00	+19.80
SMEX	39.50	38.70	38.70	0.00	-0.80
Explorer Planning	22.20	12.20	37.20	+25.00	+15.00
Discovery	102.20	74.80	104.80	+30.00	+2.60
Lunar Prospector	36.40	19.80	19.80	0.00	-16.60
Future Missions	23.80	55.00	85.00	+30.00	+61.20
Mars Pathfinder	33.70	0.00	0.00	0.00	-33.70
NEAR	8.30	0.00	0.00	0.00	-8.30
Mars Surveyor	111.90	90.00	120.00	+30.00	+8.10
Mars Global Surveyor	58.20	9.40	9.40	0.00	-48.80
Mars Surveyor '98	52.30	77.50	77.50	0.00	+25.20
Future Missions	1.40	3.10	33.10	+30.00	+31.70
New Millennium	30.00	21.50	40.00	+18.50	+10.00
MO&DA	563.80	592.40	642.40	+50.00	+78.60
Supporting R&T	238.90	259.20	309.20	+50.00	+70.30
Suborbital Program	88.00	69.10	97.10	+28.00	+9.10
SOFIA	30.00	26.30	46.30	+20.00	+16.30
KAO	3.40	0.00	0.00	0.00	-3.40
Balloon Program	16.00	14.00	16.00	+2.00	0.00
Sounding Rockets	38.60	28.80	34.80	+6.00	-3.80
Launch Services	254.30	253.50	282.50	+29.00	+28.20
Space Science Data Purchase	0.00	0.00	34.00	+34.00	+34.00
Life & Microgravity Science	**488.50**	**498.50**	**498.50**	**0.00**	**+10.00**
Life Sciences	136.40	106.20	106.20	0.00	-30.20
Microgravity Science	133.00	144.30	144.30	0.00	+11.30
Shuttle/Spacelab Missions	77.60	54.40	54.40	0.00	-23.20
Aerospace Medicine	8.00	6.50	6.50	0.00	-1.50
Station Payload Facilities	133.50	187.10	187.10	0.00	+53.60
Mission to Planet Earth	**1289.40**	**1402.10**	**1028.40**	**-373.70**	**-261.00**
Earth Observing System					
AM-1 Spacecraft	81.20	40.00	40.00	0.00	-41.20
AM-1 Instruments	25.10	3.80	3.80	0.00	-21.30
AM-1 Management	63.70	31.10	31.10	0.00	-32.60
all other AM series	0.00	9.80	4.00	-5.80	+4.00
Landsat 7 Spacecraft	61.70	29.10	29.10	0.00	-32.60
Landsat 7 ETM+	4.20	4.00	4.00	0.00	-0.20
Landsat 7 Ground System	4.00	0.00	0.00	0.00	-4.00
Landsat 7 Management	8.90	40.80	40.80	0.00	+31.90
PM-1 Spacecraft	20.80	82.10	0.00	-82.10	-20.80
PM-1 Instruments	69.40	44.20	44.20	0.00	-25.20
PM-1 Management	11.60	44.90	0.00	-44.90	-11.60
Chem-1 Spacecraft	0.50	1.20	0.00	-1.20	-0.50
Chem-1 Instruments	25.50	68.00	0.00	-68.00	-25.50
Chem-1 Management	1.30	8.20	0.00	-8.20	-1.30
Special Spacecraft:	71.70	66.70	63.30	-3.40	-8.40
Alt Radar-1	8.60	9.30	9.30	0.00	+0.70
Alt Laser-1	1.90	5.50	3.50	-2.00	+1.60
Solstice Instrument	0.30	0.30	0.30	0.00	0.00
CERES on TRMM	0.40	0.20	0.20	0.00	-0.20
LIS on TRMM	0.30	0.30	0.30	0.00	0.00
CERES Follow-On	1.40	3.30	3.30	0.00	+1.90
ACRIM	4.90	3.80	2.40	-1.40	-2.50
Seawinds	23.70	21.00	21.00	0.00	-2.70
Ocean Color	5.40	5.00	5.00	0.00	-0.40
SAGE-III (Russian)	14.80	11.40	11.40	0.00	-3.40
SAGE-III (Station payload)	3.70	9.00	9.00	0.00	+5.30
all other special spacecraft	6.30	-2.40	-2.40	0.00	-8.70
New Millennium Program (NMP)	10.00	10.00	10.00	0.00	0.00
Algorithms	75.70	101.80	88.80	-13.00	+13.10
EOS Data Information System	244.20	261.10	130.00	-131.10	-111.20
Earth Probes	46.00	47.10	47.10	0.00	+1.10
Research & Data Analysis	337.80	379.10	368.10	-11.00	+30.30
MTPE Science	248.20	277.10	277.10	0.00	+28.90
data purchase	0.00	50.00	50.00	0.00	+50.00

FY97 NASA Authorization—Continued

ACCOUNT	FY96 est.	FY97 Req.	FY97 Mark	FY97 Diff.	FY96 Diff.
research and analysis	145.00	145.00	145.00	0.00	0.00
science teams	19.40	16.80	16.80	0.00	-2.60
EOS science	56.50	47.50	47.50	0.00	-9.00
Airborne science	27.30	17.80	17.80	0.00	-9.50
Ops/Data Retrieval/Storage	89.60	102.00	91.00	-11.00	+1.40
MO&DA	53.90	65.10	65.10	0.00	+11.20
HPCC	26.10	28.30	17.30	-11.00	-8.80
Information Systems	9.60	8.60	8.60	0.00	-1.00
Earth System Science Building	17.00				
GLOBE	5.00	5.00	5.00	0.00	0.00
Launch Services	107.10	124.10	119.10	-5.00	+12.00
Aeronautical Research & Tech	**845.90**	**857.80**	**823.40**	**-34.40**	**-22.50**
Research & Technology Base	350.30	354.40	354.40	0.00	+4.10
HPCC	32.20	23.30	23.30	0.00	-8.90
# Aerondynamic Simulation	48.10	38.60	38.60	0.00	-9.50
High-Speed Research	245.50	254.30	254.30	0.00	+8.80
Advanced Subsonic Tech.	169.80	187.20	152.80	-34.40	-17.00
Space Access & Tech	**641.30**	**725.00**	**711.00**	**-14.00**	**+69.70**
Advanced Space Transportation	188.50	324.70	324.70	0.00	+136.20
Spacecraft & Remote Sensing	174.10	151.00	151.00	0.00	-23.10
Advanced Smallsat Tech.	39.10	30.00	30.00	0.00	-9.10
Space Processing	54.00	41.80	41.80	0.00	-12.20
Flight Programs	8.80	0.00	0.00	0.00	-8.80
Commercial Tech. Programs	27.40	24.20	11.80	-12.40	-15.60
Tech. Transfer Agent/NTTC	17.10	7.30	0.00	-7.30	-17.10
SBIR Funding Allocation			-0.50	-0.50	-0.50
Advanced Concepts	6.60	3.80	10.00	+6.20	+3.40
SBIR	125.70	142.20	142.20	0.00	+16.50
Mission Communication	**441.30**	**420.60**	**410.60**	**-10.00**	**-30.70**
Academic Programs	**106.90**	**100.80**	**95.50**	**-5.30**	**-11.40**
MISSION SUPPORT	**2502.20**	**2562.20**	**2380.80**	**-181.40**	**-121.40**
SRQA	37.60	36.70	36.70	0.00	-0.90
Space Communication	269.40	291.40	281.25	-10.15	+11.85
Space Ntwk. (includes TDRS)	156.70	185.10	185.10	0.00	+28.40
Telecommunications	112.70	106.30	96.15	-10.15	-16.55
Research & Program Mgt.	2052.80	2078.80	1957.85	-120.95	-94.95
Personnel & Related Costs	1565.10	1611.00	1529.50	-81.50	-35.60
Travel	45.50	45.50	40.00	-5.50	-5.50
Research Operations Support	442.20	422.30	388.30	-34.00	-53.90
facilities services	137.00	141.90	120.90	-21.00	-16.10
technical services	150.60	132.40	132.40	0.00	-18.20
mgt. and operations	154.60	148.00	135.00	-13.00	-19.60
Construction of Facilities	142.40	155.30	105.00	-50.30	-37.40
INSPECTOR GENERAL	**16.00**	**17.00**	**17.00**	**0.00**	**+1.00**
TOTAL	**13820.70**	**13804.20**	**13495.50**	**-308.70**	**-325.20**
Office of Space Commerce	0.46	0.50	0.50	0.00	+0.04
OCST	5.76	6.17	5.77	-0.40	+0.01

Subtitle A—General Provisions

SECTION 201. SHORT TITLE

This Act may be referred to as the "National Aeronautics and Space Administration Authorization Act, Fiscal Year 1997."

SECTION 202. FINDINGS

Sectional Analysis and Recommendation

The Congress finds that: NASA should pursue reforms to reduce institutional costs; given the disparity between NASA's projected needs and the Administration's projected funding levels over the

next four years, reforms provide no guarantee against cancellation of missions or elimination of centers in the event reform efforts fail to achieve cost reduction targets; NASA must return to its role as the nation's leader in basic scientific, air and space research; the economic return from commercial space activity has the potential to eclipse federal space activity; the United States is on the verge of creating and using new technologies in microsatellites, information processing, and space launches; the federal government's requirements for routine space transportation can be met most efficiently, effectively and economically by a free and competitive market in privately developed and operated launch services; NASA should aggressively promote the pursuit by the commercial sector of advanced space transportation technologies; the federal government should invest in the types of research and innovative technology in which the U.S. private sector does not invest, while avoiding competition with activities in which the United States private sector does invest; international cooperation in space exploration and science should be pursued when it satisfies particular conditions; NASA and the Department of Defense can reduce the cost of space missions by more effectively leveraging their mutual capabilities; and the Reusable Launch Vehicle program and the resulting vehicle are necessary for the protection of essential security interests for purposes of interpreting the obligations of the U.S. under the General Agreement on Tariffs and Trade.

Committee Views

The Committee encourages NASA to pursue reforms that will produce reductions in institutional costs. Unfortunately, specific details about where the savings from the Zero Base Review (ZBR) effort have not been forthcoming from the agency. The ZBR effort has categorized savings into seven categories: (1) efficiencies ($850 million); (2) restructuring ($1.6 billion); (3) privatization ($1.3 billion); (4) outsourcing ($125 million); (5) performance-based contracting ($90 million); (6) deregulation (to be determined); and (7) commercialization (to be determined). Breakdown of savings within these categories has not been provided to the Committee. However, the breakdown in savings by fiscal year does not have a further breakdown of savings in each individual code at NASA. For example, $522 million in savings for FY00 comes out of the Human Space Flight account, but there is no information on what, within that account, is cut. Although NASA has produced charts indicating that the agency has been able to achieve the $4 billion savings there are no specifics within the categories (i.e. outsourcing, restructuring) or within the programs (Space Science, Space Communications). Further there is no cross-reference between "categories" and "programs."

Last year, the General Accounting Office released a report entitled, "NASA Budgets, Gap Between Funding and Projected Budgets Has Been Reopened" May 1995, which revealed how the programs at NASA are currently underfunded and how this situation keeps escalating each year through FY00. GAO based its report on the FY96 runout which declined to the level of $13.17 billion by FY00. The FY97 runout from the President's budget request decreases NASA total funding authority to $11.6 billion by FY00. Obviously the disparity between NASA's program needs and the Administra-

tion's projected funding levels continues to grow at such a level that there can be no assurance against mission cancellations and center eliminations. The situation is particularly acute given that the Administration fails to take the steps in FY97 to start preparing the agency for the dramatic cuts to come in FY98, FY99 and FY00.

The Committee further finds that the United States is on the verge of a veritable revolution in the way space activity is conducted. First, new information and microsatellite technologies are maturing to the point where they can be applied to space missions, radically lowering costs and moving the United States away from launching large spacecraft and towards launching constellations of small spacecraft that cooperate with one another. Second, after years of promise the commercial space sector is rapidly maturing and moving into new activities, such as remote sensing. This industry is still at a delicate stage, however. Consequently, government space policy and activity must take into account the interests and fragility of the commercial space sector when conceiving, planning, developing, launching, and operating new space missions.

In the area of space transportation, the Committee finds that private sector investment in new expendable and reusable launch vehicles and the emerging commercial sector are altering the supply and demand of space launch capabilities. In order to reduce costs, the Committee seeks to encourage a free market in commercial space transportation services, which could meet most routine government launch requirements.

The Committee commends NASA and its international partners for their many cooperative ventures. These include the International Space Station, the exploration of Mars and Saturn, and the study of the Earth from space. The Committee, however, does not view international cooperation as an end in itself. Rather, the Committee supports international cooperation for the specific benefits it brings to the United States and its international partners, including a lowering of national space costs; an increase in U.S. space capabilities; and an enhancement in the pace of scientific progress. The Committee also notes that international cooperation can do net harm to all of these interests by increasing mission complexity and U.S. costs, undermining U.S. space capabilities in the government and U.S. private sector, and/or transferring commercially or militarily advantageous technology from the United States to the world market without an offsetting return to the United States. Consequently, the Committee directs NASA to consider these secondary effects of international space cooperation before entering into new agreements with foreign partners. Furthermore, the Committee expects that NASA will not enter into such agreements when the disadvantages outweigh the benefits.

Finally, the Committee notes anecdotal evidence of successful cooperation between NASA and the Departments of Defense and Energy. The Committee supports such interagency cooperation because it lowers costs, eliminates duplication, and facilitates the transfer of technology among agencies and the private sector. In the past, such cooperation has been difficult due to the Cold War limitations on access to defense-related space technology. The Committee notes that those limitations are breaking down and directs

NASA to make use of defense-related technologies, information and expertise when they are relevant to civil space missions.

SECTION 203. DEFINITIONS

Throughout the Act and Committee report, the term "Administrator" refers to the Administrator of the National Aeronautics and Space Administration and the phrase "institution of higher education" refers to the meaning of this phrase given in section 1201(a) of the Higher Education Act of 1965 (20 U.S.C. 1141(a)).

Subtitle B—Authorization of Appropriations

Chapter 1—Authorizations

It should be noted that FY96 funding levels used in this report do not account for the $83 million that was added to the NASA Science, Aeronautics, and Technology account by the Appropriations Conference Report [H. Rept. 104-537, Conference Report on H.R. 3019, Balanced Budget Downpayment Act, II].

SECTION 211. HUMAN SPACE FLIGHT

Sec. 211(1). The Space Station Program

Sectional Analysis and Recommendation

The Committee has authorized the entire amount requested under the Human Space Flight account for the International Space Station (ISS) $1,840,200,000. Of this amount, $38,200,000 is authorized to continue U.S. activities related to the Russian Mir orbital complex.

Committee Views

The Committee notes the addition of $29,200,000 in FY96 and $28,600,000 in FY97, to the program's previously planned baseline. In the Committee's view, these upward adjustments do not violate the "spirit" of the program's annual $2.1 billion cap, which had previously projected a peak year funding level of $2,121,300,000 in FY98. According to the President's request, the new peak funding years for the program will be FY96 and FY97. These adjustments do not increase the program's total completion cap of $17.4 billion.

Sec. 211(2) and (3). Space Shuttle Operations; Space Shuttle Safety and Performance Upgrades

Sectional Analysis and Recommendation

$2,514,900,000 are authorized for Space Shuttle operations in FY97. The Committee concurs with the request of $636,000,000 for safety and performance upgrades.

Of the funds authorized to be appropriated under subsection (3), Space Shuttle Safety and Performance Upgrades: (A) $1,800,000 are authorized for replacement of LC-39 Pad B Chillers (KSC); (B) $1,500,000 are authorized for restoration of Pad B Fixed Support Structure Elevator System (KSC); (C) $2,500,000 are authorized for rehabilitation of 480V Electrical Distribution System, Kennedy Space Center, External Tank Manufacturing Building (MAF); and, (D) $2,500,000 are authorized for restoration of the High Pressure Industrial Water Plant at Stennis Space Center.

Program Description

The objective of the Space Shuttle program is to support the nation's launch requirements while balancing the goal of mission accomplishment with the primacy of program safety. Because of its

unique capabilities, the Space Shuttle remains the cornerstone of America's space program. The Shuttle Orbiter is the world's first reusable space vehicle which can be reconfigured for a variety of payloads and missions. In addition to the transportation of personnel and equipment to orbit, the Space Shuttle stands alone among the world's space systems, due to its ability to retrieve material from space for repair or return to Earth. The Space Shuttle will serve as the primary transportation system for the assembly and operation of the International Space Station.

Committee views

The Shuttle program is in a period of transition for many reasons. Numerous reviews conducted both within NASA and external to the agency have addressed subjects ranging from program safety to the status of the Shuttle workforce. Due to current budgetary constraints, there has been considerable effort on the part of the agency and outside groups to find ways to achieve cost savings within the program. The Committee recognizes that effort and commends the Administrator for the agency's difficult work in streamlining Shuttle operations without compromising safety.

1. Restructuring

Declining NASA budgets have forced the agency into major restructuring efforts in order to continue programs, while at the same time, avoiding the closure of NASA centers. Accomplishing this goal requires an overall reduction in agency personnel, which in the case of human space flight programs, has led to questions about the impact this reduction would have on safety. The agency has commissioned a series of reviews of both internal and independent teams to provide recommendations for reaching the requisite budget goals while avoiding any compromise to program safety. One of these studies, the Shuttle Workforce Review recommended that 3,200 government and contractor jobs could be eliminated from the nearly 30,000 member Shuttle workforce without jeopardizing safety of flight. These cuts would be in addition to ongoing reductions.

2. The Kraft Commission

The Space Shuttle Management Independent Review Team was formed by the NASA Administrator in November 1994 and chaired by Dr. Christopher Kraft to provide independent recommendations to supplement internal reviews. The study, now referred to as the "Kraft Report," sought to evaluate the current process and procedures for conducting Space Shuttle operations at the NASA space centers and associated contractor facilities in order to provide recommendations to the Administrator to establish a more efficient operational structure.

The Kraft report made a series of recommendations on efficiency, cost savings, and improved service to customers without jeopardizing safe operation of the Shuttle. The most significant recommendations included relinquishing the operational responsibility of the program to a prime contractor, reducing NASA's involvement in daily operations of the Shuttle, and minimizing modifications to the Shuttle fleet to only those which would improve safety or otherwise reduce operating costs.

3. The SAIC Report

In response to the recommendations of the Kraft report, NASA commissioned a study by Science Applications International Corporation (SAIC) to perform a risk-assessment study of the entire Shuttle mission profile in order to assess where concentrated efforts would reduce operating costs without compromising flight safety. The study looked at all the potential events which could lead to a critical failure, with the goal of directing resources to a more focused risk reduction effort. Even though this process can reduce the potential for a mishap, the inherent risks associated with such a complex program as the Space Shuttle cannot be eliminated. The report concluded that the "median estimate of failure" for a given mission has been reduced to one in 248 launches from one in 78 at the time of the Challenger accident.

4. GAO

Oversight by Congress led to ongoing studies of the restructuring of NASA, in general, and its effects on the Shuttle program. The General Accounting Office (GAO) has reviewed the findings of the 1986 Rogers Commission, which investigated the Challenger accident, and applied them to the current restructuring plans of NASA. The GAO has identified a few key principles which it believes should remain as guideposts during the transition of the Shuttle program: to foster a culture that encourages open communication of safety concerns, provide sufficient parallel safety reviews and improve communications channels, implement accessible management information systems that provide complete and accurate data in a timely manner, and prioritize programs so that safety comes before schedule or cost.

5. Consolidation of the Shuttle Program

In following the recommendations of the Kraft report, NASA is in the process of consolidating Space Shuttle Program contracts into a "single prime" contract. This "single prime" concept, which was first used by the Space Station program, is intended to collapse the fee structure (profits paid to contractors) while rewarding the single prime contractor with additional fee incentives for achieving cost reduction goals. Many observers recognize the transition from today's multiple prime contracts to a single prime as the first step in the broad policy goal of privatizing the Space Shuttle program. Under a single prime contract, the firm chosen would obtain general control over the day-to-day operations of the Space Shuttle program, while ultimate authority to certify and fly the system would continue to be held by the federal government. Privatization would likely transfer this ultimate authority to the private firm, while NASA's role would be reduced to that of being a "customer" of the privatized system.

Sec. 211(4). Payload and Utilization Operations

Sectional Analysis and Recommendation

$271,800,000 are authorized for Payload and Utilization Operations, fully funding the President's request for FY97.

Program Description

This program supports the processing and flight of Shuttle payloads.

Committee Views

The Committee recognizes the tireless efforts by the Shuttle management and the Shuttle workforce in streamlining this program to ensure maximum returns on the research investment, continual improvement of the processing evolution, and reduction in costs of operations. The Committee urges the NASA Administrator to monitor error rates during further reductions in the workforce to ensure acceptable risk rates are not exceeded.

Sec. 211(5). Russian Cooperation

Sectional Analysis and Recommendation

$100,000,000 are authorized for Russian Cooperation, fully funding the President's request for FY97.

Program Description

The Russian Cooperation line pays the Russian Space Agency and Russian space enterprises under its jurisdiction for necessary designs, data, and support services required to carry out the Joint Statement on Space Cooperation of the U.S. Joint Commission on Economic and Technological Cooperation, under the terms of NASA Contract #NAS15-10110, entered into on June 23, 1994. The firm fixed-price contract provides for the U.S. purchase of discrete technological products, services, and space hardware, not to exceed $400,000,000 during fiscal years 1994 through 1997. The annual request of $100,000,000 is consistent with these contract terms.

Separate from the $38,200,000 authorized above from within the Human Space Flight account for Russian Cooperation, $100,000,000 is authorized for the final year of the NASA-Russian Space Agency (RSA) Contract. The reason for identifying these funds separately is two-fold. First, the $38,200,000 amount is contained within the ISS program's $2.1 billion cap; the NASA-RSA contract is not. Second, the $38.2 million is spent primarily in the U.S., whereas the $100 million is spent entirely in Russia. The NASA-RSA $400 million contract has been performing well. No funds are paid to Russia until work products identified by the contract are delivered, inspected and accepted by NASA. The Committee notes with satisfaction that NASA has not requested funds to extend or expand this contract.

Committee Views

Insofar as the $400 million contract is concerned, the Committee notes that no funds appropriated and obligated pursuant to this authorization are transferred to Russian entities until the U.S. has received deliverable items in good condition, inspected them, and accepted them. It is not possible under the terms of this contract for NASA to pay for something it does not receive, does not want, or cannot use. The Committee commends NASA for negotiating these terms of the contract, and appreciates the Russian Space Agency's agreement to abide by such terms.

SECTION 212. SCIENCE, AERONAUTICS, AND TECHNOLOGY

Sec. 212(1) Space Science

Sectional Analysis and Recommendation

$2,167,400,000 are authorized for Space Science in FY97. This authorization represents an increase of $310,100,000 over the President's request. The authorization represents an increase over the FY96 funding level of $134,800,000. The Administration re-

quested a decrease in Space Science funding of $175,300,000 (down 9%) from the FY96 funding level.

Program Description

There are two general science areas within space science: (1) physics and astronomy and (2) planetary exploration. The core physics and astronomy missions include the Advanced X-Ray Astrophysics Facility (AXAF); Gravity Probe-B (GPB); the Explorer Program; and the Stratospheric Observatory for Infrared Astronomy.

Within planetary exploration, activities include Cassini; the Discovery Program; and New Millennium. Launch support, mission operations, and scientific data analysis of mission results are also funded within the space science program.

Committee Views

The Committee considers space science to be one of the core science programs at NASA, and thus, one of the highest priority missions of NASA. The Committee continues to believe that space science should maintain its standing as a top priority at NASA as it has in previous years. The Committee notes that NASA has not provided a wedge of funding in the outyears to initiate new space science projects. In fact, space science has the fastest declining budget in the agency. The budget is cut 21% in the span of four years (FY96-FY00). Many space scientists are concerned about the dramatic cuts. "During the past few years, the space science office has restructured every major program under its control—radically scaling back the size and scope of the Advanced X-ray Astrophysics Facility, postponing other observatories, and chopping funds to operate a host of missions. In addition, the space science office at headquarters has cut its own work force by half." [Science, Volume 271, March 22, 1996]

The Committee recommends continued funding of AXAF, Gravity Probe B, and Cassini, at the levels requested, in order to maintain these programs on schedule and on budget. The Committee further supports continued funding for complete mission operations, research, and data analysis in order to take advantage of the scientific research opportunities created by the funding of these space science missions.

Explorer

The Explorer program has been increased by $25 million. The Committee intends for NASA to use this additional amount for future planning to ensure a solid foundation from which to plan future Explorer missions. The Committee commends NASA for continuing its Explorer program to launch small, low-cost, highly-focused space missions exploring the realm of space physics and astrophysics. The Committee also agrees with NASA's finding that the Explorer program represents an opportunity to develop new technologies for low-cost, high-capability spacecraft. The Committee encourages NASA's Explorer program to take advantage of miniaturized spacecraft technologies developed in the Departments of Defense and Energy, as well as the private sector.

Discovery

The Discovery program has been increased from the FY97 request by $30 million for future missions. The Committee commends

NASA for continuing the Discovery program to promote low-cost exploration of the solar system, and endorses the program because it is demonstrating a real commitment to innovative management techniques that lower the costs of space exploration. Furthermore, the Discovery program addresses the problems associated with NASA's recent approach to space exploration, which relied on large, expensive spacecraft in development for a decade or more. Consequently, the Committee recommends full funding for the Lunar Prospector, a low-cost science probe to the moon which will build on the Defense Department's successful Clementine mission of 1994 and now has a strong educational component provided separately by the private sector. Lunar Prospector represents the type of resource-leveraging that NASA must perform in an era of constrained budgets.

Mission Operation and Data Analysis

The Committee believes that with the amount of spacecraft in orbit, an increase in the Mission Operation and Data Analysis (MO&DA) program is absolutely essential. NASA expects to be operating 25 spacecraft at the end of FY97 compared to 13 at the beginning of FY95. Using data provided by the FY95 NASA budget request, the average spent on MO&DA per spacecraft was approximately $42 million. Using the FY97 request, this average is reduced by $24 million per spacecraft. The Committee feels that this increase is needed for adequately operating the spacecrafts and for analyzing the data. Therefore, the Committee increased MO&DA by $50 million over the FY97 request. The purpose of the MO&DA program is to maximize the scientific return from NASA's investment in spacecraft and other data selection sources. MO&DA is fundamental because it funds the operations of the data collecting hardware and the data analysis that produces scientific discoveries. Funding supports satellite operations during the performance of the core missions, extended operations of selected spacecraft, and ongoing analysis of data after the usable life of spacecraft has expired. The Hubble Space Telescope (HST) is returning data almost on a daily basis and is among the eleven current missions being supported by this account. More missions, specifically, Hubble Space Telescope, AXAF, Galileo, NEAR, Mars Surveyor, and Mars Pathfinder, in the near future will be returning data and it will be necessary to have adequate funding to pay for the analysis by the scientists and to disseminate the information to the American public.

Supporting Research and Technology

Supporting Research and Technology (SR&T) is increased by $50 million over the FY97 request. SR&T is designed to do four things: (1) optimize the design of future missions through science definition, development of advanced instruments and concepts, and definition of proposed new missions; (2) strengthen the technological base for sensor and instrument development; (3) enhance the value of current space missions by carrying out ground-based observations and laboratory experiments; (4) conduct the basic research necessary to understand astrophysics phenomena, solar-terrestrial relationships and develop theories to explain observed phenomena and predict new ones.

The Committee encourages NASA to use a portion of the increase in the Supporting Research and Technology line to fund TIMED (Thermosphere, Ionosphere, Mesosphere, Energetics and Dynamics) at $50 million in FY97. The Committee notes that this level of funding will give the taxpayers the greatest value for their dollars by keeping the program on schedule and on the projected budget. TIMED, a program to be carried out by the Applied Physics Laboratory at Johns Hopkins University, promises to greatly enrich our basic knowledge of the previously unexplored transition region between the Earth's atmosphere and outer space.

Suborbital programs

The Committee has authorized an additional $28,000,000 for FY97 for Suborbital Programs. While these programs often receive less attention than their space-based counterparts, they represent an important opportunity to conduct frequent, low-cost, scientific research. NASA has an accomplished history of using high-altitude balloons and sounding rockets in addition to airborne platforms such as SOFIA or the Kuiper Observatory. During the authorization process for NASAs FY97 budget, the Committee received testimony on April 17, 1996 from Dr. Holland Ford, a distinguished scientist from Johns Hopkins University in Baltimore, Maryland on POST, a polar stratospheric telescope. POST would address two of NASA's four major science themes, the origin of planets and the origin of galaxies. The Committee encourages NASA to seek a timely review from the National Academy of Sciences on the concept of POST.

New Millennium

The New Millennium program is increased by $18.5 million over the FY97 request. NASA's briefing to the Committee, "Exploration for the 21st Century: The New Millennium," indicates that New Millennium intends to create new-capability space missions at a reduced cost and increased flight rate through improvements in key technology areas, including micro-electronics, autonomy, and instruments. Because this initiative is intended to create advanced technologies that will carry space science and earth observation forward into the next century at reduced costs, the Committee increases funding for the initiative with the expectation that NASA can accelerate bringing the benefits of this program to the science community. Because this initiative is intended to create advanced technologies that will carry space science and earth observation forward into the next century at reduced costs, the Committee increases funding for the initiative with the expectation that NASA can accelerate bringing the benefits of this program to the science community. While the Committee commends NASA for recognizing that these technologies are necessary to lower costs, it also notes that the Departments of Defense and Energy have been working on such technologies since at least the late 1980s.

NASA's New Millennium program has considerable potential to meet its goals if NASA and DOD work together. Furthermore, this section is consistent with the Technology Procurement Initiative goal outlined in Title II, Sec. 205 (b): "achieve a continuous pattern of integrating advanced technology from the commercial sector and from federal sources outside NASA..."

The Committee finds that NASA can reduce the cost of New Millennium while increasing and accelerating the benefits of New Millennium if it takes advantage of the miniaturized technologies already paid for by the U.S. taxpayer and developed in the Departments of Defense and Energy. To the degree that NASA demonstrates technological cooperation with the microsatellite technology programs in DoD and DoE, the Committee expects that New Millennium will meet its programmatic goals and serve the national interest. Therefore, the Committee directs NASA to brief the Science Committee on the manner in which NASA will make use of the technology, personnel, facilities, and expertise related to New Millennium program goals within the USAF Phillips Laboratory Space Experiments Directorate, the Lawrence Livermore National Laboratory Physics and Space Technology Directorate, and the Naval Research Laboratory Naval Center for Space Technology in conjunction with NASA's own capabilities and those of the private sector, prior to obligating any funds for the New Millennium program. The Committee commends NASA for the willingness and desire to work directly with DoD and DoE personnel on New Millennium programs, as expressed in briefings to Committee staff, and will closely monitor this program's progress in promoting NASA cooperation with DoD and DoE. The Committee further finds that failure to achieve such cooperation will result in wasteful duplication of capabilities and may give cause to terminate the New Millennium program.

The Committee believes NASA's technology and space science programs can benefit from the Clementine 2 mission. Because Clementine 2 will rendezvous with two near-Earth asteroids, NASA would be able to improve U.S. understanding of near-Earth objects at a cost significantly less than that required to fund its own mission. The Committee encourages NASA to participate in the Air Force's efforts to define science goals and participate in the mission.

Sec. 212(2) Life and Microgravity Sciences and Applications

Sectional Analysis and Committee Recommendation

The entire request, $498,500,000, are authorized for the Office of Life and Microgravity Sciences and Applications (OLMSA).

Program Description

OLMSA conducts the basic research required to enable human space flight and is responsible for the health of astronaut crews who live and work in space. As a function of this, OLMSA performs a wide variety of life sciences research that use the absence of gravity as a medium for understanding the human immune system; the development and loss of bone mass and connective tissues; and, human and plant adaptation to zero gravity, including their attending cellular and molecular effects. OLMSA is responsible for carrying out the NASA-National Institutes of Health (NIH) Protocol, which has served to make space-based biomedical research relevant to other basic health research. OLMSA is also NASA's occupational health program office, which promotes the health and safety of all NASA employees. On the microgravity sciences front, OLMSA is responsible for programs to discover new space-based

manufacturing processes, the study of materials and fluids in space, and other gravitational research programs.

Committee View

The Committee is concerned with the future direction of NASA's Office of Life and Microgravity Sciences and Applications (OLMSA), in the context of agency restructuring and outyear budgets. The Committee notes with some concern that the percent of OLMSA's budget devoted to research and analysis is essentially frozen while Space Station payloads and facilities increase. Assuming OLMSA's budget is subject to the President's prioritization in terms of additional cuts forecast by OMB, only that part of OLMSA's budget which is contained in the Space Station's $2.1 billion cap ($267,800,000 of the $498,500,000 in FY97) would be held harmless under such a percentage reduction formula. As OLMSA's Station-related activities increase through FY00 to $396,900,000, resources for research and analysis could become nonexistent exactly when they will be most needed to support research on the Station.

Of secondary concern, the Committee observes the potential restructuring of OLMSA to become a direct subsidiary of the Human Exploration and Development of Space strategic enterprise, either by accident through headquartering OLMSA at the Johnson Space Center, or on purpose to support the ISS. Whatever the short-term reasoning, the long-term impact on OLMSA may be the undesired distancing of NASA's microgravity research activities from the scientific and biomedical research communities on which it relies for high quality basic research.

Accordingly, the Committee encourages the NASA Advisory Council to commission the Space Studies Board of the National Academy of Sciences to conduct a Life and Microgravity Sciences and Applications ten-year horizon assessment that (1) provides guidance for determining the appropriate relationship between research and analysis spending and spending on enabling facilities and functions, (2) provides guidance to the NASA Administrator before a closer organizational relationship is attempted between Human Space Flight activities and OLMSA, (3) provides OLMSA a core research plan and research planning process, including minimum funding levels, which would be appropriate to maintain irrespective of OLMSA's ISS facilities, and (4) sets forth biomedical and microgravity sciences research objectives and priorities for OLMSA during ISS construction, including interagency and international cooperation, and resources required by fiscal year.

The Committee regards OLMSA's upcoming Neurolab mission, the final Spacelab module flight, to be an extremely important life sciences mission and commends NASA for initiating this mission with the NIH.

Sec. 212(3) Mission to Planet Earth

Sectional Analysis and Recommendation

$1,028,400,000 are authorized for Mission to Planet Earth, of which $50,000,000 are to be used for commercial data purchases. This authorization represents a decrease of $261,000,000 from the FY96 estimated funding level and $373,700,000 from the President's request. Funds may not be expended to duplicate private sector or other federal activities or to procure systems to provide

data, unless the Administrator certifies that no private sector or federal entity can provide suitable data in a timely manner.

Program Description

In 1990 the federal government initiated the interagency U.S. Global Change Research Program (USGCRP) at a time when NASA's budget was expected to increase 10% per year. NASA's contribution to this effort is Mission to Planet Earth (MTPE), which averages 70% of the total USGCRP and applies NASA's sensor technologies to the purpose of monitoring Earth's environment. The main elements of MTPE are the Earth Observing System (EOS) and the Earth Observing System Data Information System (EOSDIS). EOS consists of a series of satellites with various instruments to observe the Earth continuously for 15 years. EOSDIS is the data collection and management system for the constellation of satellites.

The three main EOS spacecraft groups are: morning (AM), afternoon (PM), and the Chemistry series. Each series has three satellites that will fly for six years. For example, AM-1 flies in 1998; AM-2 flies in 2004, and AM-3 flies in 2010. Each series contains a different suite of instruments to observe different parts of the Earth and its atmosphere. The AM series will cross the equator in the morning when cloud cover is at a minimum so it can observe terrestrial surface features. The PM series will focus on cloud formation, precipitation and radiative properties; thus, an afternoon equatorial crossing is preferred. PM-1 is scheduled for launch in 2000. The Chemistry series will study atmospheric chemical species and their transformations. Chem-1 is scheduled for launch in 2002.

The original program has undergone restructuring three times since its approval in 1990. The program was originally estimated to cost $17 billion through the year 2000, and it was to fly six large polar-orbiting satellites, two at a time, over 15 years. In the summer of 1991, the program was brought down to $11 billion at the request of the Office of Management and Budget and the National Space Council. In the fall of 1992, the program was further reduced to $8 billion. In FY95, the program was reduced to $7.25 billion through the year 2000 (this figure represents about two-thirds of MTPE). NASA has since reported that it completed a rebaselining of EOS that will break up the second and third series of EOS spacecraft in order to reduce costs. However, the Agency expected no additional savings before FY00 from this rebaselining. The program is expected to run until 2022. Funding for MTPE from fiscal year 1991-2000 is expected to be over $12 billion.

EOSDIS will be the first data information system to collect such immense quantities of data, which will result in a very complex system. It is estimated that when MTPE is fully operational, the instruments will generate an average of 2100 gigabytes (gigabyte = 1 billion bytes of data) per day. Data from other U.S. and foreign satellite systems could double this amount. The architecture of EOSDIS is intended to be decentralized through the use of nine interconnected Distributed Active Archive Centers (DAACs). These DAACs are located across the United States and they each have a different function.

For FY97, NASA initiated the following new programs in MTPE: the Earth System Science Pathfinder program and the New Millen-

nium program. Pathfinder is supposed to consist of small, short-duration, low-cost, focused science missions to provide MTPE with scientific flexibility in studying changing earth science phenomenon. MTPE's New Millennium program is intended to cooperate with the Space Science New Millennium program to develop new technologies that NASA hopes will reduce the outyear costs of EOS. Additionally, the White House Office of Management and Budget increased the MTPE budget by $50 million in order to facilitate direct purchases of earth science data from the emerging commercial remote sensing industry.

Committee views

The Committee supports the goals of the Mission to Planet Earth program and appreciates NASA's efforts to reduce Mission to Planet Earth cost projections after FY00. However, the program does not appear fiscally sustainable in the out-years. The Committee has several concerns about Mission to Planet Earth. First, Mission to Planet Earth was added to NASA's suite of programs in 1990, when it was expected that NASA's budget would grow by 10% per year to accommodate these new programs and missions. In 1992, the Science Committee raised concerns that outyear funding might not be available for Mission to Planet Earth if the agency's budget did not receive the projected increases. The NASA Multiyear Authorization Act of 1992 [H. Rept. 102-500] treated Mission to Planet Earth as "discretionary in nature" and declared that it should be funded after the fiscal requirements of NASA's core mission areas were satisfied, assuming additional resources were available. The report concluded on page 39, "EOS is a special initiative that is not intended to be part of the core space science program." The report further noted, "It is clear that EOS cannot be funded at the planned level unless NASA obtains double digit percentage increases each year through at least fiscal year 1995 or major program reductions are made elsewhere in NASA." NASA did not receive an increasing budget through FY95. Instead, its budget declined.

Although EOS has since been restructured, accomplishing the baseline EOS program still requires an increasing budget or significant cuts in other program areas between FY97 and FY00. The General Accounting Office estimates that the EOS system alone will cost $33 billion dollars to complete. The President's FY97 NASA budget request contains a total NASA budget that declines to $11.6 billion in FY00, and the required fiscal resources are unlikely to be available, unless other programs are dramatically cut.

The 1992 Committee report further concluded, "It is possible that funding constraints will delay significantly all but the first EOS satellite. . ." As a result of NASA's declining budget, those concerns have come to pass and the Committee is at this time taking the steps that were predicted in 1992 by the Committee. The Committee is fully funding AM-1, the first EOS satellite scheduled for launch, Landsat-7, the TRMM mission, Earth Probes, and MTPE Science. Full funding for PM-1 instruments continues, but the spacecraft, along with the Chem-1 mission, is delayed.

Based on the President's FY96 budget submission to Congress, spending on Mission to Planet Earth will exceed spending on space science in FY00. This dilemma is only expected to worsen. Accord-

ing to briefings provided by NASA to the Committee, the Administration's budget priorities for FY97 and beyond are: (1)Mission to Planet Earth; (2) Space Station; (3) Advanced Subsonic Technology and High Speed Research in Aeronautics; (4) High Performance Computing and Communications; and, (5) the New Millennium program. Given the likelihood of a declining NASA budget, the Administration's priorities suggest that space science is likely to bear a disproportionate share of budget cuts. This alters the bipartisan prioritization of space science that this Committee has always held. The Committee remains concerned that MTPE not displace space science as a NASA priority during a period of stringent budget constraints, especially since the assumption, made at the time of Mission to Planet Earth's initiation, of an annual 10% increase in the agency's budget is no longer realistic.

Second, it remains to be demonstrated that MTPE, as currently organized, has the proper scientific focus and priorities. The program appears to be overly focused on hardware. Inadequate attention has been paid to scientific content. At a March 6, 1996 hearing of the Science Committee, for example, Dr. Richard Lindzen, a meteorologist at the Massachusetts Institute of Technology and member of the National Academy of Sciences, observed, "From the beginning, EOS science teams were chosen to support instruments rather than to do science which would be assisted by the instruments. EOS provided no support for developing the basic science that might provide a foundation for the program." While reaffirming that data collection and continuity are highly important, Dr. Lindzen further observed, "EOS initially was starting with the instruments and hoping the [scientific] questions would arise." Drs. Balling and Davis endorsed Dr. Lindzen's concerns.

Similarly, at the same hearing, representatives from the General Accounting Office noted that the funded science teams for EOS, a multi-decade program costing some $33 billion dollars, were slightly *smaller* than the funded science teams for two earlier earth science missions, Upper Atmosphere Research Satellite (UARS) and Topex-Poseidon. For comparison purposes, these missions were an order of magnitude less expensive and of considerably shorter duration than EOS. In addition, EOS will provide data at a rate of 42,000,000 bits per second to 49 science teams, while UARS and Topex-Poseidon produced a combined data rate of 48,000 bits per second for 60 science teams. There appears to be a definite imbalance.

At the March 6th hearing, Chairman Walker raised his concern that 30% of USGCRP funding was supposed to be devoted to process studies, the actual analysis of data and improvement of theory, but within Mission to Planet Earth, only 9% of funding was devoted to process studies, with the remaining being devoted to data collection and management systems such as EOS and EOSDIS. Dr. MacCracken confirmed that this is where the funding stood. Dr. Watson indicated that reducing the cost of EOS was important to achieve a balance among data collection, laboratory studies, and theory, from which one can conclude that the program as it exists today is not optimally balanced.

NASA has indicated that MTPE data will be used to improve the predictive capability of climate models, both in terms of reliability

and regional effects. While the Committee recognizes that there is substantial room and need for improvement in computer models of the climate system, the Committee notes that such models are only as good as the theory behind them. At the March 6, 1996 hearing before the Science Committee, Dr. Robert Davis, an atmospheric physicist at the University Of Virginia concluded, "The simple fact is that the current generation of GCMs [General Circulation Models] are incapable of reproducing the historic climate of the earth sufficiently at anything but the broadest time and space scales. These modelled (sic) errors are not merely a function of lack of computing power—they underscore our lack of understanding of the atmospheric processes that govern the earth's climate." Dr. Davis raised the further concern that computer models were being used to verify themselves, instead of comparing such models against the actual climate record. This gives rise to the concern that MTPE funds are being used disproportionately to improve models rather than theory, the latter of which is clearly more important and does not always require billions of dollars of investments in data collection and management systems.

Third, the Committee is concerned about EOSDIS. According to NASA, the system will download some 2100 gigabytes of new data from MTPE sensors every day. This amounts to about 766,500 gigabytes of data per year. NASA estimates a user community of some 10,000 investigators will use this data, meaning each one would have to completely analyze 210 megabytes of data every day of the year in order to use each byte of data just once. Mr. Jack Brock of the GAO testified before the Subcommittee on Space and Aeronautics on March 16th, 1995 that EOSDIS will be the largest civil data management and distribution system ever attempted and could accumulate data amounting to 1,000 times the entire printed contents of the Library of Congress over its lifetime.

The Committee is concerned that NASA may be spending hundreds of millions of dollars to acquire data that will never be used. For example, NASA's estimate of 10,000 earth science investigators is vastly over-estimated. In fact, this represents the total membership of earth and environmental science professional associations and societies and their undergraduate students and graduate-level teaching assistants. According to the GAO, NASA has just 500 principal investigators to examine EOS data for specific investigations. GAO investigators also commented that NASA's investment in EOSDIS focused on near-term development of systems and formats for a small group of primary users, without much regard to the needs of secondary and tertiary users. EOSDIS was not downsized when EOS restructuring took place. Additionally, the GAO noted that information technologies change very rapidly; thus, NASA's over-emphasis on EOSDIS development at the beginning of Mission to Planet Earth may preclude using more capable and affordable information technologies available when the EOS satellites actually begin collecting data after the turn of the century.

The National Research Council recommended restructuring EOSDIS to address some of these problems. In general, the NRC recommended that "ownership" of EOSDIS be give to a federation of organization, including the government, universities, corpora-

tions, and other organizations. Such an approach would presumably reduce EOSDIS costs and make the system more responsive to changes in information technologies and the state of our knowledge.

The Committee is also concerned that inadequate attention has been paid to the structure and organization of MTPE relative to the activities of other federal agencies and other countries. The failure to survey foreign efforts has already been mentioned, but there are additional indications that point to substantive problems with the program. The problem is not limited to insufficient coordination with foreign earth-observation programs. According to the National Research Council, "[I]nterdisciplinary and interagency linkages are central to successful implementation of the program. The needed programmatic integration is not currently being achieved adequately. Specifically, important elements of the USGCRP may be lost due to agency boundaries and individual agency funding difficulties." This failure to provide interagency coordination occurs above the level of the NASA Administrator and leads to wasteful spending practices. It makes little sense to continue the current pace of the program until this interagency coordination is demonstrated and waste is eliminated.

In March of 1995, NASA and NOAA embarked on a mission to explore ways to enhance interagency collaboration in global change research. The NASA Office of Mission to Planet Earth and NOAA National Environmental Satellite, Data and Information Service have established three working groups on collocation, technology infusion, and data and information systems. At the senior program level, a roundtable has been formed to monitor the activities of the working groups and is scheduled to report to the Administrators of NASA and NOAA on August 1. The Committee is encouraged by these activities to increase interagency collaboration. It is concerned, however, that the effort was solely prompted by the prospect of cuts to the respective elements of USGCRP; this coordination should have been ongoing since the inception of the USGCRP.

Some critical measurements to maintain are the observations of global temperature data taken by the NOAA Polar Orbiting Environmental Satellite (POES), yet it is not apparent that NASA planned to make effective use of such data as part of MTPE. The Committee recommends that NASA accord this activity a higher priority and take steps to ensure continuity of this existing data set, as discussed at the March 6th Science Committee hearing on the USGCRP. MTPE as currently designed will make significant demands on NASA resources for operations at a time when the agency must move away from being an operational organization and back into an R&D organization. MTPE must not be allowed to transform itself into an open-ended operational program that displaces the exploration of space or impedes reform efforts directed at transforming the agency into a cutting-edge R&D organization.

Finally, the Committee does not see sufficient evidence to conclude that NASA has adequately considered the emergence of a commercial remote sensing industry as a prospective source of environmental data. The Committee has frequently encouraged NASA to think more creatively about how to acquire environmental data, from straightforward purchases of privately-gathered data to lever-

age use of data already gathered for other purposes, such as weather records developed by the Department of Defense during the Cold War. While the agency has launched some commendable pilot programs to explore direct purchasing of commercial data, the Committee expects the agency to move more aggressively to capitalize on these emerging commercial capabilities in its reorganization of MTPE.

Committee Action and Intent

The bill reduces the MTPE program request by $373,700,000 in FY97. The Committee intends that the PM-1 and Chem-1 satellites be halted to allow several different things to happen. First, this delay will give NASA time to survey and assess foreign systems and the Department of Defense's airborne and space-based sensor programs to avoid duplication and a waste of taxpayer dollars. Second, a delay will allow time for NASA to develop its "faster, cheaper and better" spacecraft under the New Millennium program and the Small Satellite Technology Initiative and incorporate these new technologies into PM-1 and Chem-1. Also, the delay will enable NASA to fully explore options for lowering EOS costs by using commercial, off-the-shelf, satellite busses for PM-1 and Chem-1 instruments under a fixed-price contract. A Department of Energy representative testified before the Committee on March 6, 1996 that the first series of EOS spacecraft, which collectively cost over $2 billion between FY96 and FY00, could be replaced by a series of new-technology, advanced spacecraft that would accomplish most of the EOS mission at a cost of $370 million over five years. Third, such a delay will give NASA adequate time to assess and explore the use of commercially-gathered data to meet its scientific requirements. By making greater use of commercial data suppliers, NASA could further reduce the costs of MTPE and encourage the development of commercial remote sensing. These delays in the PM and Chemistry series of EOS satellites also will enable NASA to delay funding for EOSDIS, data analysis, and program management.

In imposing a delay on PM-1 and Chem-1, the Committee retains funding to continue work on the sensors for PM-1, but eliminates all funding for Chem-1. Full funding is provided for AM-1, Landsat-7, the TRMM mission, Earth Probes, and MTPE Science, where fundamental research is performed. NASA's Special Spacecraft request of $66.7 million is reduced by $3.4 million in the Alt-Laser 1 spacecraft and the ACRIM instrument, both of which are still in Phase A/B studies.

Sec. 212(4) Space Access and Technology

Sectional Analysis and Recommendation

$711,000,000 are authorized for Space Access and Technology. Included in this authorization is $324,700,000 for Advanced Space Transportation and $10,000,000 for continuing the Launch Voucher Demonstration program. The authorization is $14 million less than the FY97 request.

Program Description

Space Access and Technology operates numerous programs intended to provide new technologies for space activities and promote the commercial development of space. These include advanced space transportation, which is responsible for the X-33 program

and the X-34 and DC-XA technology testbeds; spacecraft and remote sensing, which provides sensors and small spacecraft technology; a program for advanced small satellites, which includes the Lewis and Clark spacecraft; space processing and flight programs; commercial technology programs; advanced space concepts; and NASA's Small Business Innovative Research program.

Advanced Space Transportation—In General

The entire request for Advanced Space Transportation, $324,700,000, is authorized. The Advanced Space Transportation program contains NASA's breakthrough effort to develop the world's first "Single Stage To Orbit" (SSTO) space transportation system. The Committee notes that RLV activity encompasses three test vehicle programs, the DC-XA suborbital test vehicle, the X-34 "pathfinder," and the X-33 pre-commercial RLV. None of these test vehicles is required to achieve orbit or deliver useful payload; rather, the combination of technology development and flight testing is planned to be sufficient on which to base the full-scale development decision.

The Committee is concerned, in light of testimony received from industry in October 1995, "The X-33 Reusable Launch Vehicle: A New Way of Doing Business?," that significant private contributions to develop X-33 under the Cooperative Agreements are not expected. The use of a Cooperative Agreement, versus a traditional cost type development contract, implied to Congress significant financial participation by industry in the test vehicle program. The Committee also learned in testimony that industry would require the federal government's significant participation in any commercially-developed RLV system which would follow X-33. The Committee, at industry's urging, encouraged NASA to increase the FY97 funding level for X-33 in order to reflect more of an X-vehicle funding profile where the bulk of funding comes early in the development cycle. It was also intended that such an increase would leverage greater industry participation in Phase 2 of the RLV program. NASA's request for RLV, $58,000,000 more than what was projected for FY97 in the FY96 NASA budget, responds fully to the Committee's expressed concern. The total funding profile for X-33 remains the same, with funding in the outyears shifted to the beginning of the program.

Separately, the X-34 Cooperative Agreement fell apart recently when the industry partners could not agree on a profitable design for that test vehicle, which was to be capable of carrying useful payload to orbit. X-34's timing and technological relationship to X-33 was considered tenuous at best, since its cancellation was said not to have jeopardized the X-33. The Committee understands that NASA has redesigned the program objectives so that X-34 technology development relates directly to the X-33 program. NASA is now seeking proposals which more closely resemble the financing of traditional X-vehicles.

NASA's new initiative in Advanced Space Transportation technology is authorized as requested. The action is responsive to the NRC report which pointed out advanced engine technology was the greatest weakness of the program. However, the Committee believes the specific breakdown of effort between its three stated goals: low-cost, light-lift launch systems; low-cost, light-weight

upper states; and Rocket Burning Combined Cycle engine technology, should be defined more clearly before funds are committed in FY97.

One of the federal government's goals for the Advanced Space Transportation program is to find an economical functional replacement for the nation's aging Space Shuttle fleet. This goal must be made to work in harmony with the nation's commercial need to develop the world's least expensive, most reliable payload delivery system. In a world where even non-market nations have gained access to the commercial space launch market, the most effective government incentive for private capital infusion into next-generation reusable launch systems is a solid technological investment to develop a new launch system that will surpass all current systems in terms of economy, reliability, and performance.

Traditionally, the government has taken the lead in developing new launch systems to meet national security requirements. But, as these strictly government demands have receded in recent years, new systems must instead base their capitalized cost on a highly competitive commercial market model. In order to facilitate such a large and essential private investment, NASA has been charged by the President's National Space Transportation Policy (released August 5, 1994) to provide up-front technological risk reduction sufficient to enable private investors to assume a reasonable business risk to then proceed with building an operational launch system.

The development of a Space Shuttle functional replacement, however, should not be confused with the risk reduction phase of this first process. Government requirements, including those associated with "man-rating" a space launch vehicle, must take a back seat to commercial launch market demands. The replacement of the Space Shuttle should be derived from commercial vehicles developed by the private sector as a result of the Reusable Launch Vehicle program. When a privately developed reusable launch vehicle has become operational, then consideration may be given to human space transportation requirements. While it may soon be possible for commercial companies to offer human transportation services, the distinction between developing human space flight vehicles and commercial payload delivery systems is important at this stage to focus NASA's RLV effort solely on reducing the risks and costs facing industry to develop and certify a commercial RLV.

The RLV Programs

The Committee supports NASA's request to develop reusable launch vehicles under the terms of the industry-led cooperative agreements. The Committee believes the full-scale development and fleet operations of such vehicles, however, must be undertaken by private companies using risk capital. Accordingly, the business viability of the designs is as important as technological viability.

For several years the Committee has strongly supported technology development specifically aimed at achieving a single-stage-to-orbit, fully reusable launch vehicle even while NASA had no such program underway. Upon the successful testing of the DC-X prototype launcher by the Department of Defense, however, NASA and the Office of Science and Technology Policy determined that such a concept, if fully developed, could hold the promise of eventually replacing the Space Shuttle. Beginning in fiscal year 1995,

NASA began to adopt the DC-X program for continued testing and issued the Cooperative Agreement Notices that led to formal agreements with industry to develop two Reusable Launch Vehicles, the X-33 and the X-34.

The X-34 Program

The Committee endorses NASA's X-34 program as a technology pathfinder for an operational RLV. The program's cancellation by the industrial partners does raise some concerns about the prospects of public-private partnerships and the willingness of industry to commit private capital to programs with commercial potential. The Committee accepts that one may learn as many lessons from failure as from success, and still considers the government's experience to date on X-34 as valuable. NASA's decision to continue X-34 and rescope it as a technology testbed for an operational RLV should complement the X-33 program's risk reduction benefits in making the decision to proceed to a fully operational RLV in the year 2000. Consequently, the Committee recommends full funding for the X-34 program and expects that NASA will incorporate management lessons from X-34 into the management of X-33.

The X-33 Program

The Committee balances the tight budget constraints that NASA is operating under with the need to develop a robust, reliable, and affordable reusable launch vehicle. Cheap access to space is not just a pipe dream, it is a reality, that we as a nation, must achieve. It has the potential to open up entire new markets. Further, cheap access to space positions American industry to dominate the international market for space transportation. The overtures from other space launching nations wishing to participate in the X-33 program, highlight the general consensus that the goal of achieving an SSTO reusable launch vehicle represents the future of space transportation.

The Committee is concerned that the current X-33 program only calls for the construction of one flight test vehicle. Historically, experimental programs either build two different designs or two or more copies (tail numbers) of one design. Obviously, funding two different designs is an option that is too expensive. Nevertheless, NASA should be striving for a "robust" program. The Committee urges NASA to push the X-33 to the limits, and views the program's funding of a single copy of the X-33 as an obstacle to achieving a robust program. With no backup copy, NASA will be reluctant to "push the envelope." Serious consideration, starting this year, must be given to the type of program structure necessary to aggressively pursue the goals of the X-33 program.

Spacecraft and Remote Sensing

The Committee supports NASA's activities in this area to produce advanced technology and spacecraft systems intended to reduce the cost of conducting space missions and to support the commercial development of space.

Earth Applications Systems

Earth Applications Systems includes activities by the Office of Space Access and Technology to produce active sensors, such as space-based radars and lasers, that will be compact enough to fit

on small spacecraft. The program also includes development of mechanisms to reduce spacecraft "jitter" and safer pyrotechnics.

NASA's Commercial Remote Sensing Program is also funded through Earth Applications Systems. The Committee endorses and fully supports this program, which seeks to work with private sector data suppliers to improve the application of earth remote sensing data and increase the ability of the private sector to devote private capital to studying and understanding the earth from space. The Committee has directed the Commercial Remote Sensing Program to manage the pilot program to study the application of commercially generated earth science data and to purchase such data for Mission to Planet Earth as required in Section 259 of the bill.

Space Processing

The Committee supports continuing space processing activities to help develop new products in space, bring the private sector into commercial space activities, and provide opportunities for student-industry interaction in space processing experiments. This activity will also benefit the space station program by providing direction for the utilization programs aboard the station. The Committee is aware that some space processing proposals from the university community have commercial potential, but may lack mature business plans due to the research background of academic investigators. The Committee supports efforts by NASA to help individuals with good concepts for space processing to develop sound business plans and partnerships with the private sector.

Small Spacecraft Technology Initiative

The Committee supports the Small Spacecraft Technology Initiative (SSTI), as a low-cost means of developing and flight-qualifying small satellite technologies which industry and the government can then use. The Committee has some concerns, however, that NASA may offer services from Earth-remote sensing platforms built under the SSTI that compete with the private sector. Because the United States government should encourage the commercial development of space to lower government costs and promote the creation of high-technology aerospace jobs that do not depend on federal outlays for their existence, the bill precludes NASA from conducting space technology missions that will compete with or otherwise preempt, any private sector activities to develop space commercially. The Committee, therefore, expects that the satellites created under the Small Spacecraft Technology Initiative will not release their data in a manner that undermines the commercial remote sensing industry.

Commercial Technology Programs and Technology Transfer Agents

Commercial Technology Programs is reduced by $12.4 million from the FY97 request. The Technology Transfer Agents request at $7.3 million is eliminated. In FY96, the Committee recommended an authorization of $10.4 million for these programs. In FY97, the Committee recommends an authorization of $11.8 million and no funding for the National Technology Transfer Center in the Technology Transfer Agents Account. These programs raise several concerns for the Committee. While the Committee commends NASA's efforts to spin off technology to the private sector, it finds that many of the activities within the Commercial Technology Program

are better performed within the private sector. These include activities funded under "business practices," in the President's request, an account which provides funding for NASA to perform market research, develop business plans for the private sector, and assist in raising capital. These should include effective use of the Internet and media for technology dissemination and marketing and more effective use of the Regional Technology Transfer Centers. The Committee also expects NASA to provide assistance to the private sector on a cost-reimbursable basis so that those companies which increase their profit margin with government assistance bear the financial burden of such government assistance.

The Committee notes that Dr. Joel Snow of the Iowa State University in testimony before the Space and Aeronautics Subcommittee on April 17th, 1996, stated that Iowa State has developed a technology transfer model that works more effectively in some areas than NASA's technology transfer model. The Committee strongly urges NASA to explore this model and Iowa State's effectiveness in leveraging federal technology development as a means of improving the return on the Commercial Technology Programs budget.

Office of Advanced Concepts

In FY95 the Administrator directed the formation of an Office of Advanced Concepts as part of establishing the new Office of Space Access and Technology. This activity is wholly dedicated to identifying and advancing new, high leverage, and "out of the box" technical concepts that could potentially revolutionize our national space enterprise.

In particular, the office will pursue those ideas which could enable major new commercial activities in space and/or help realize important science and exploration objectives, "faster, better, and cheaper." Once the feasibility, potential benefits, and technology strategy for a new concept is determined, the office will advocate its adoption by other NASA enterprises for incorporation into their technology development programs and implementation plans.

The Committee notes that this activity was given a "small start-up" level of funding ($3.0 million) in FY95, grew to $6.6 million in FY96, but is cut back to $3.8 million for FY97, well below its originally-forecast level of $10.0 million.

The Committee believes that it is important to leverage resources in a way that allows this office to plan for space activities in the 21st century. Given the Administration's outyear budget which cuts $3.2 billion out of the agency in a three-year timespan, it is natural and necessary for NASA to be focused on short-term issues. That is exactly why it is essential that the Office of Advanced Concepts be given the seed money to start thinking about the years after 2000.

Launch Voucher Demonstration Program

$10,000,000 are authorized for the Launch Voucher Demonstration Program. This authorization allows for the continuation of the bi-partisan experiment, first authorized by the fiscal year 1993 NASA Authorization Act (P.L. 102-588). The goal of the program is to privatize suborbital and small orbital scientific payloads by demonstrating that the private sector can provide cheaper and faster

launch services for small NASA missions. The voucher program will further identify providers of launch or payload integration services. The first voucher demonstration took place on April 3, 1996 with the successful launch of a Starfire rocket in conjunction with the University of Alabama at Huntsville and the University of Mississippi at Hattiesburg.

Sec. 212(5) Aeronautical Research and Technology

Sectional Analysis and Recommendation

$823,400,000 are authorized for Aeronautical Research and Technology. This authorization includes: $354,400,000 for Research and Technology Base; $254,300,000 for High Speed Research; $152,800,000 for Advanced Subsonic Technology; $23,300,000 for High Performance Computing and Communication; and, $38,600,000 for Numerical Aerodynamic Simulation. There has been a significant increase in funding of the Advanced Subsonic Technology program since fiscal year 1994. This program has been reduced $34,400,000 from the FY97 request.

Program Description

The Research and Technology Base, High Speed Research, Advanced Subsonic Technologies, Numerical Aerodynamic Simulation, and the High Performance Computing and Communications programs are the elements of NASA's aeronautical research efforts. The core of these programs can be found in the Research and Technology Base where the focus is directed towards leading-edge research in propulsion and structures.

Committee Views

The Committee supports the goals of NASA's aeronautics programs to ensure that cutting-edge aeronautical research conducted within the United States is unsurpassed. During the 104th Congress, however, the Congressional Budget Office has been critical of some NASA aeronautics programs, including some components of the Advanced Subsonic Technology (AST) program, as being beneficial primarily to airlines and aircraft manufacturers. The Committee views some of the elements of this program as more mature than basic research, and wishes to ensure that federal funding is invested in NASA programs which support broad aeronautical research efforts. With that in mind, the Committee encourages NASA review the AST program to determine which elements could be reimbursed by the private sector.

The Committee encourages NASA to review funding levels for polymer-matrix composite programs to achieve a balance between composite and metallic technologies. Aluminum has been the material of choice for all significant commercial aircraft structures, and continues to offer opportunities for cost effective improvements in aircraft structural performance.

Sec. 212(6) Mission Communication Services

Sectional Analysis and Recommendation

$410,600,000 are authorized for Mission Communication Services. This authorization represents a general reduction of $10,000,000 from the President's request.

Program Description

Mission Communication Services provides the ground networks for every NASA flight mission from interplanetary spacecraft to the Space Shuttle. Services also include tracking, orbit and attitude determination, maneuver analysis, communications scheduling, spacecraft command, spacecraft health and safety data acquisition, and science data acquisition.

Committee Views

The Committee recommends that NASA place Mission Communication Services (under Science, Aeronautics and Technology) and Space Communication Services (under Mission Support) under one account, as was the case in years previous to fiscal year 1995.

Sec. 212(7) Academic Programs

Sectional Analysis and Recommendation

$95,500,000 are authorized for Academic Programs. This represents a reduction of $5,300,000 from the FY97 request.

Program Description

Academic Program goals are to promote excellence in the United States' education system through enhancing and expanding scientific and technological competence.

Committee Views

The Committee supports NASA's educational activities as an important means of generating student interest in mathematics and the hard sciences.

In order to support and stimulate the effectiveness of NASA academic funding, NASA is encouraged to work with non-profit organizations to enhance the development of aerospace education programs through state-based teacher outreach. The goal of such a partnership should be to streamline the administration of NASA education programs, resulting in personnel reductions at NASA headquarters and field centers; lower costs; stimulate state participation in the civil space program; evolve the role of aerospace science in the classroom; and support teacher training in aerospace science.

The Committee supports initiatives such as the Spaceweek International Association which holds an annual event with government, industry, and education organizations across the United States to educate the public about space. It is important to schedule this type of event during the school year in order to maximize student participation. Moreover, such programs bring state government and private funding into the process of supporting space education nation wide. In order to support and stimulate such benefits, the Committee strongly urges NASA to consider proposals from state-based educational groups for creating collaborative agreements between such organizations and the Agency that promote more effective use of federal space education dollars. The Committee notes with pleasure that one such group, the Aerospace States Association, discussed the improved performance and reduced cost potential of such a collaboration at an April 17th, 1996 hearing before the Subcommittee on Space and Aeronautics and wholeheartedly commends the Association and its member state governments for supporting space education and creatively leveraging state education dollars to generate private sector funding of edu-

cational activities. The Committee believes that working with such groups will enable NASA to expand its educational outreach and make its existing educational dollars go much further.

SECTION 213. MISSION SUPPORT

Sec. 213(1) Safety, Reliability, and Quality Assurance

Sectional Analysis and Recommendation

$36,700,000 are authorized for Safety, Reliability, and Quality Assurance. This authorization represents no change from the FY97 request.

Program Description

NASA's agency wide efforts to develop policies and practices to ensure safe operations and practices, quality controls, and reliable flight systems are funded under this account.

Sec. 213(2) Space Communication Services

Sectional Analysis and Recommendation

$281,250,000 are authorized for Space Communication Services. This authorization represents a reduction of $10,150,000 from the FY97 request.

Program Description

Space Communications Services provides electronic communications which are essential to the success of every NASA flight mission, from interplanetary spacecraft to the Space Shuttle. All Space Network major development activities such as TDRS Replenishment are under this budget line.

Committee Views

Within Space Communication Services, the telecommunications program supports NASA's programs in collaborative interagency, international and commercial enterprises. The Committee believes NASA could find further efficiencies in telecommunications by using those technologies from U.S. industry that are already well established.

The GAO Report, "Telecommunications Network, NASA Could Better Manage Its Planned Consolidation" released in April 1996, criticizes NASA's Telecommunications Network. The report noted that NASA opted to follow a plan proposed by Marshall Space Flight Center, which would consolidate the management, engineering, and operations of its networks under an existing support contractor at Marshall. Specifically, NASA "did not consider other existing proposals that could result in potentially greater savings." Moreover, "NASA has embarked on its present course of action in an ad hoc manner, without taking a comprehensive and objective look at its overall communications requirements independent of the approaches championed by officials who are currently managing NASA's networks." The adopted plan does not seek cost savings in the near term as aggressively as other existing proposals. The Committee urges NASA to review the findings of the GAO report and subsequently, to review its telecommunications network in a comprehensive and objective manner.

Sec. 213(2) Construction of Facilities

Sectional Analysis and Recommendation

$105,000,000 are authorized for Construction of Facilities. This represents a $50,300,000 decrease from the FY97 request and a $37,400,000 decrease from FY96 funding.

Committee View

The Committee notes that NASA will be able to fund all of the discrete Construction of Facilities projects that are listed in the FY97 request. The decrease comes from Minor Revitalization of Facilities at Various Locations and Facility Planning and Design. The Committee encourages NASA to pursue the types of cost savings activities described in the FY97 budget request: "[savings] resulted from favorable bids experienced in the marketplace, construction efficiencies realized from innovative designs, scope reductions due to efforts to downsize the Agency's physical plant as well as Zero Base Review determinations, and the design of fewer projects for future budgets due to constrained Agency resources."

As the Agency continues to downsize and makes efforts to meet the Administration's outyear funding targets, the costs of the Construction of Facilities line must be contained and reduced.

Sec. 213(4) Research and Program Management

Sectional Analysis and Recommendation

$1,957,850,000 are authorized for Research and Program Management. This represents a reduction of $120,950,000 from the FY97 request. Personnel & Related Costs is reduced $81,500,000 and Research Operations Support is reduced $34,000,000.

Committee View

The Committee based the reduction in Personnel & Related Costs on projected levels of Full Time Equivalents (FTEs) for the end of FY96 and FY97 provided by NASA. These charts indicated that NASA was projecting 21,555 FTEs at the end of FY96 and 21,031 FTEs at the end of FY97. As of February 1996, NASA was running at a level of 21,325 FTEs. Thus, it seemed apparent that NASA was running ahead of schedule for targeted reductions in the number of FTEs.

During the afternoon of April 23 (the day prior to Full Committee markup of the bill, later introduced, H.R. 3322), NASA sent the subcommittee a new chart indicating that the Agency has actually been underrunning the level of FTEs by about 500 for both FY96 and FY97. To calculate the budget for FY96, the NASA budget office used the level of 21,055 FTEs. To calculate the budget for FY97, the NASA budget office used the level of 20,550 FTEs.

SECTION 214. INSPECTOR GENERAL

Sectional analysis and recommendation

$17,000,000 are authorized in FY97 for the Office of Inspector General. The authorization represents no change from the President's request.

Program description

Funding for this account supports activities of the NASA Office of Inspector General in carrying out its responsibilities under the Inspector General Act of 1978, including conduct of independent audits and investigations of agency programs and operations, prevention and detection of waste, fraud and abuse in agency activities, and promotion of economy and efficiency within the agency.

SECTION 215. TOTAL AUTHORIZATION

Sectional Analysis and Recommendation

The total amount authorized under this Act for NASA for FY97 is $13,495,500,000.

SECTION 216. OFFICE OF COMMERCIAL SPACE TRANSPORTATION

Sectional Analysis and Recommendation

$5,770,000 are authorized for the Office of Commercial Space Transportation within the Department of Transportation.

Committee Views

The Committee remains concerned about the allocation of resources provided for regulatory functions within the Office of Commercial Space Transportation (OCST). Consistent with the Committee Views included in the FY96 NASA Authorization, the primary duty since its inception has been, and continues to be, to regulate and license commercial launches and launch site operators. OCST should be a single source, or "one stop shopping place" for the commercial launch industry to obtain the necessary licensing to undertake operations. Promotion and advocacy are of secondary importance. By limiting the Office's policy-making functions to only those within its regulatory responsibilities, OCST will be able to concentrate on developing critical safety and insurance regulations, and licensing and certification procedures.

To date, no launch site regulations have been issued by OCST despite the fact that 3 of 5 spaceports are within 12 months of the commencement of operations.

Accordingly, the Committee will study the possibility of allowing some states the option of licensing their launch site operators. This option would be considered only for those states that have a regulatory framework previously established and would be considered only on an interim basis until OCST has provided sufficient licensing and regulatory framework in cooperation with the individual spaceports and applicable state governments. This would also be considered only in the context of sufficient standardization and compatibility among state and federal regulations for spaceports.

The Committee directs the Office of Commercial Space Transportation to allocate resources according to its primary mission, that of regulation and licensing, and to cooperate fully as the Committee investigates a range of options to facilitate the operation of commercial spaceports. The balancing of resources should take into account any travel by the Associate Administrator or other OCST staff and an assessment of the relationship of such travel to the primary responsibility of OCST.

The Committee also views with concern possible personnel and mission changes in the U.S. Air Force safety-related organizations and how those changes could affect support of commercial launch activities. The Committee, therefore, directs OCST to work with the U.S. Air Force to determine its ability to adequately support safety-related operations during commercial launch preparation and operations.

The Committee believes that a revised federal regulatory regime for commercial launch activities may be required, in particular, one that recognizes the regulatory empowerment that state govern-

ments have provided to their respective agencies. Such revisions should be considered jointly by OCST, other relevant federal agencies including NASA and DoD, and relevant state governments.

It is the recommendation of the Committee that following the transfer of OCST from the Office of the Secretary to the Federal Aviation Administration (FAA), the Office of Commercial Space Transportation continue to be recognized as an independent division of the FAA with the same level of authority as the six other divisions. In addition, OCST should be allowed to operate autonomously in both its budget and personnel matters and that the Director of OCST should report directly to the FAA Administrator or his deputy.

SECTION 217. OFFICE OF SPACE COMMERCE

Sectional Analysis and Recommendations

The entire request of $500,000 are authorized for the Department of Commerce Office of Space Commerce.

Program Description

The Office of Space Commerce assists the Secretary of Commerce in efforts to promote the commercial development of space through policy development, export licensing, and commercial remote sensing satellite regulation.

Chapter 2—Restructuring the National Aeronautics and Space Administration

SECTION 221. FINDINGS

Sectional analysis

Section 221 finds that restructuring NASA is essential to accomplishing space missions while balancing the federal budget; restructuring requires objective financial judgment; and, a formal economic review of NASA's missions and the federal assets that support them is required in order to plan and implement needed restructuring.

SECTION 222. RESTRUCTURING REPORTS

Sectional Analysis

Section 222 requires the Administrator to transmit a report to Congress by July 31, 1996, on its restructuring activities by fiscal year. By September 30, 1996, the President shall propose all enabling legislation required to carry out actions described in the Administrator's report.

Committee Views

The Committee has not taken the step of authorizing an annual restructuring program the way it would authorize a major development program, although in form and substance such an authorization may prove necessary in the future. In lieu of specific direction at this time, the Committee requests an implementation report identifying all actions taken and planned to be taken to restructure the agency, and the net savings to be realized from these activities by fiscal year.

Simply stated, NASA's restructuring promises must be bankable in order for the agency to plan, organize, and survive in an era of declining discretionary outlays. The Committee notes with deep regret that NASA has initiated a Reduction in Force (RIF) without

proper consultation with Congress and without demonstrating the fiscal requirement. The Committee has relied on the agency's Zero Base Review (ZBR) to produce sufficient restructuring savings to avoid draconian measures, and questions whether the NASA Headquarters RIF is an admission that ZBR savings are inadequate or are not meeting their intended savings schedule.

Chapter 3—Limitations and Special Authority

SECTION 231. USE OF FUNDS FOR CONSTRUCTION

This section authorizes the use of funds appropriated for program purposes other than construction of facilities and personnel and travel-related costs in the Human Space Flight and Mission Support accounts, for the construction of new facilities or repair of existing facilities at any location. The authorization is subject to a limitation that funds may not be expended for projects exceeding $500,000 until 30 days have passed following a report to the House Committee on Science and to the Committee on Commerce, Science, and Transportation of the Senate. This section would also provide for vesting of legal title in the United States when funds are used under this section for grants to academic institutions for additional research facilities.

The Committee wishes to emphasize that the sole purpose of consolidating in one section the various provisions in previous authorization acts and bills concerning use of funds for construction of facilities purposes is to streamline and simplify the applicable legal authorities. This change from past practice should in no way be viewed as a dilution of the agency's authority to manage the construction of facilities program, or to realign the respective authorities and responsibilities of NASA Headquarters in relation to the Centers. With respect to the latter, the Committee expects the agency to establish the necessary internal procedures to ensure that construction of facilities decisions continue to be made in an orderly and fully justified manner.

SECTION 232. AVAILABILITY OF APPROPRIATED AMOUNTS

Section 232 provides for funds authorized for Human Space Flight; Science, Aeronautics, and Technology; Mission Support; and, Inspector General to remain available until expended.

SECTION 233. REPROGRAMMING FOR CONSTRUCTION OF FACILITIES

Section 233 establishes authority for the Administrator to vary upward the amount of funds authorized for specific construction of facilities projects, provided that the total authorization for construction of facilities is not increased as a result of such reprogramming actions. This section also authorizes the Administrator to use up to $10,000,000 of amounts authorized in this bill for construction of facilities for projects that result from new and unforeseen developments in the national civil space program, subject to notification to the House and Senate authorizing committees.

SECTION 234. CONSIDERATION BY COMMITTEES

Section 234 establishes a requirement that the Administrator report in advance to the respective House and Senate authorizing committees the use of appropriated funds for a program where the

Congress did not provide funding as requested; the amount of funds proposed to be used exceeds the amount authorized for the program under subtitle B, chapter 1 of this bill; or the program was not presented to the Congress in the President's budget request. This section also obliges NASA to keep the authorizing committees fully apprised of agency activities and responsibilities within the jurisdiction of those committees, including the provision of information requested by either committee that relates thereto.

SECTION 235. LIMITATION ON OBLIGATION OF UNAUTHORIZED APPROPRIATIONS

Section 235 requires the Administrator to submit a report to the Congress and to the Comptroller General on FY97 appropriations for programs not authorized under subtitle B, chapter 1 of this bill or that exceed authorized amounts for specific programs. The report is to be submitted within 30 days following enactment of an appropriations act for FY97. Section 235 also requires the Administrator to publish a Federal Register notice seeking public comment on programs for which funds are appropriated but which were not authorized in this bill, and limits the obligation of such funds until 30 days following close of the comment period.

SECTION 236. USE OF FUNDS FOR SCIENTIFIC CONSULTATIONS OR EXTRAORDINARY EXPENSES

Section 236 authorizes the Administrator to use funds appropriated for Science, Aeronautics, and Technology activities, in an amount not exceeding $30,000, for scientific consultations or extraordinary expenses.

Subtitle C—International Space Station

SECTION 241. FINDINGS

The Congress finds that: it is in the national interest of the United States for NASA to develop, assemble, and operate the International Space Station; that the International Space Station has been successfully restructured and redesigned, and NASA has achieved program management, control, and stability while consolidating contract responsibility; that private industry involvement and participation during assembly and operational phases of the International Space Station will lower costs and increase benefits to the international partners; further changes in design or scope of the International Space Station will discourage commercial involvement, increase costs, and weaken the relationship with the international partners that may be necessary for future space projects; total program costs for development, assembly, and initial operations have been identified and capped to ensure financial discipline and enforce schedule milestones; mission planning and engineering functions of the National Space Transportation Systems (Space Shuttle) program should be coordinated with the Space Station Program Office in order to contain costs; the International Space Station is a necessary part of an adequately funded civil space program which balances human space flight with science, aeronautics, and technology; the International Space Station should encourage new and expanded opportunities to meet educational goals, particularly in our young people, and in general should be an inspiration to society; and when completed the International Space Station will be the largest, most capable micro-

gravity research facility ever developed, it will provide a lasting framework for conducting large-scale science programs with international partners, and it is the next step in the human exploration of space.

SECTION 242. COMMERCIALIZATION OF SPACE STATION

The Committee believes NASA should consider commercializing the various components, i.e. operational tasks, resupply, and research, of the space station. It is vital to the future of expanding human civilization into space that the first steps be taken using free market principles.

SECTION 243. SENSE OF CONGRESS

H.R. 1601, the International Space Station Authorization Act of 1995, notes the positive reform of using the "cost incentive fee" single prime contract for the International Space Station has been beneficial. For the future, this type of reform in NASA's reinvention process is encouraged by Congress to be used throughout the Nation's civil space program.

SECTION 244. SPACE STATION ACCOUNTING REPORT

Section 244, Space Station Accounting Report, requires that all funds transferred by NASA to Russia be accounted for from the point of arrival in Russia through conversion to disbursement.

Committee View for Subtitle C

The provisions contained in the bill pertaining to the International Space Station (ISS) are derived from the findings and miscellaneous provisions of H.R. 1601, the International Space Station Authorization Act of 1995 (H. Rept. 104-210). While the Committee is not providing a full-program authorization of the ISS at this time, rationale for full-program authority, as provided in Section 241, Findings, remains valid today.

The Committee is, however, cognizant of the current discussions taking place between the Russian Space Agency (RSA) and NASA, and between the Government of Russia and the Executive Branch, aimed at assuring that Russian hardware contributions to the ISS are delivered to orbit on time. While this provision does not address internal Russian funding of Russian contributions, such a requirement would deter the use of U.S. funds as short-term loans in lieu of Russian government funds for Russian ISS contributions.

The Russian government has argued that providing an accounting of U.S. funds should not be of concern to the program or Congress. To the contrary, the Committee believes that it has a strong interest in knowing whether the individual firms or persons responsible for fulfillment of the $400 million contract are, in fact, being paid for their efforts. In light of the tight schedule established for future docking missions and other preparatory work for the International Space Station, the Committee believes establishing a clear relationship between the work performed under the contract and payment to the responsible entities will help to assure the timely completion of contract tasks.

The Committee continues to be concerned with the International Space Station's use and operational costs. This concern stems from the lack of an economic framework, agreed to by the partners, which defines how station usage and operations costs will be cal-

culated and apportioned. The embodiment of this agreement is the Memorandum of Understanding (MOU), which must be understood by the international partner governments before signing the Intergovernmental Agreement (IGA). The IGA provides the foundation on which transactions can be made between partners in supplying and using the ISS. Consistent with this concern, the Committee reiterates its support for commercial services in and access to the ISS. Accordingly, a market study is required to identify commercial mechanisms and opportunities which could be pursued on an economic, versus political, basis.

The Committee believes that commercial users and service providers will play a risk-mitigating and cost saving role throughout the life of the ISS, and urges NASA to regard this as an opportunity to counter-balance the tight fiscal constraints under which the ISS will have to operate.

Subtitle D— Miscellaneous Provisions

SECTION 251. COMMERCIAL SPACE LAUNCH AMENDMENTS

Sectional Analysis and Recommendation

This section amends Chapter 701 of title 49, United States Code, entitled "Commercial Space Launch Activities," which is a recodification of the Commercial Space Launch Act of 1984. The purpose of the amendments is to establish a statutory framework for the licensing of commercial reentry activities by the Secretary of Transportation, clarify certain provision in Chapter 701, and provide for criteria for accepting a license application.

The Commercial Space Launch Act is further amended to expand the definition of "launch services" to those activities directly related to the preparation of a launch site or payload facility. Under Section 70105, the Secretary of Transportation is directed to notify the authorizing House and Senate Committees within seven days after a license has not been issued within the deadline. The Secretary may establish procedures for certification of the safety of a launch or reentry vehicle. The Secretary is also given the authority to develop regulations establishing criteria for accepting an application for a license within the 60 days after receipt of such application. The Secretary is directed to establish criteria and procedures for determining the priority of competing requests from the private sector and State governments for property and services under section 70111. The term "license" is amended to "launch reentry or site operator license" under section 70112 on liability insurance.

Program Description

The Department of Transportation, through its Office of Commercial Space Transportation, is responsible for implementing Chapter 701 which authorizes the Secretary of Transportation to license and regulate the non-governmental space launch and reentry of a vehicle and operation of a launch or reentry site. In addition, by virtue of Executive Order 12465, the Department has lead agency responsibilities within the Executive Branch to encourage, facilitate and coordinate development of commercial expendable launch vehicle operations by private U.S. enterprises.

Committee Views

When the Commercial Space Launch Act was passed in 1984 (P.L. 98-575) and when it was amended in 1988 (P.L. 100-657), Congress did not address the full range of space transportation activities that the private sector could undertake on a commercial basis. Specifically, commercial space activities involving reentry vehicles that are returned to Earth from Earth orbit were not encompassed, and were not intended to be encompassed, by the statute. Market demand to support commercial reentry ventures has yet to emerge. However, the private sector is beginning to demonstrate technical capability to undertake such activities if a suitable profit making opportunity were presented. In recognition of these developments, the Committee wishes to establish the appropriate legal framework to ensure public safety is protected while minimizing regulatory burden, delay or uncertainty that could inhibit commercial exploitation of reentry capabilities. In addition to establishing a regulatory regime for commercial reentries, the Committee intends these amendments to address certain issues that have arisen regarding the definition of "launch," the extent to which activities before and after launch may be licensed or regulated, and applicability of the third party liability provisions of sections 70112 and 70113 of Chapter 701.

In establishing the legal framework for reentry, the Committee's approach is to treat reentry of a reentry vehicle the same as launch of a launch vehicle. Reentries described in section 70104(a) must be licensed, just as launches meeting these same criteria must be licensed. In addition, amendments to other sections of Chapter 701 grant to the Secretary the same authority and responsibility with respect to the licensing and regulation of the reentry of reentry vehicles as existing law provides to the Secretary with respect to the launch of vehicles.

An amendment to section 70102 also adds the phrase "from Earth" to the existing definition of "launch" in order to make clear the original intent of the Commercial Space Launch Act that the launch of a launch vehicle is an event that takes place from Earth, not from Earth orbit or otherwise from or in outer space. Although the definition of launch in the original Act lacks this explicit specification, the Act was otherwise quite clear that a launch for purposes of the license requirement takes place from a "launch site," which is defined in terms of a location "on Earth." Moreover, the legislative history of the Commercial Space Launch Act demonstrates that only launches from Earth were envisioned.

The amendment to section 70102 was originally prompted by a concern that the Department of Transportation was advocating the position that a reentry is subject to a launch license requirement on the grounds that reentry entailed the placing of a launch vehicle in a suborbital trajectory "from Earth orbit." Although the Department has since abandoned that position, the committee wishes by this amendment to register its emphatic rejection of any interpretation of "launch" that would include space transportation activities that do not begin from Earth; such as reentry, the transfer of a satellite between one Earth orbit and another, or any other on-orbit operation after a launch is completed and before reentry is initiated.

The Committee intends that for purposes of the license requirement, reentry begins when the vehicle is prepared specifically for reentry. By way of definition, the Committee intends the term to apply to that phase of the overall space mission during which the reentry is intentionally initiated. Although this may vary slightly from system to system, as a general matter the Committee expects reentry to begin when the vehicle's attitude is oriented for propulsion firing to place the vehicle on its reentry trajectory.

The Committee acknowledges that in order to issue a license the Department must be satisfied that an applicant has demonstrated capability to carry out a reentry safely and without jeopardy to critical national interests. The Committee also appreciates that, to evaluate capability, the Department may need to examine certain of the applicant's proposed procedures and activities that would precede initiation of reentry. However, the Committee wishes to make clear that these pre-reentry procedures or activities are not events requiring a license, nor otherwise subject to regulation. Rather, they would represent aspects of an application that the Department would have to measure against standards and criteria that the Department has established are necessary to evaluate capability to conduct the reentry. These standards and criteria may be generally applicable to all applicants or specific to a particular proposal. The Committee urges the Department to take the steps necessary to ensure that they are clearly articulated and understandable to license applicants.

These same principles should apply to the licensing of a launch. There has been much discussion about what activities, should be encompassed by the term "launch" for purposes of the license requirement. It is the Committee's view that there may be activities that precede flight that (1) are closely proximate in time to ignition or lift-off, (2) entail critical steps preparatory to initiating flight, (3) are unique to space launch, and (4) are inherently so hazardous as to warrant the Department's regulatory oversight under Chapter 701, For instance, once a launch vehicle is fueled and armed in preparation for a launch, whether from the ground or the air, the risk of an inadvertent ignition may be sufficiently high to justify an interpretation of launch that would encompass this pre-flight phase of the launch campaign.

The Committee recognizes that, given the very different preparatory process associated with individual launch vehicle systems, it may be difficult to pinpoint the same commencement of launch for all proposals. However, the Committee views with concern the Department's attempt to address this situation by using a license to indiscriminately cover all activities of a licensee at a launch facility before, during, and after a launch. The Committee believes that the Department can identify when a launch begins both for well-established launch systems as well as emerging systems. This would limit applicability of the Department's license requirement for purposes of obtaining a license and implementing the insurance and risk allocation provisions in Chapter 701.

The original Act intended that a launch ends, as far as the launch vehicle's payload is concerned, once the launch vehicle places the payload in Earth orbit or in the planned trajectory in outer space. The Committee wishes to make clear that the Sec-

retary has no authority to license or regulate activities that take place between the end of the launch phase and the beginning of the reentry phase, such as maneuvers between two Earth orbits or other non-reentry operations in Earth orbit; or after the end of a launch phase in the case of missions where the payload is not a reentry vehicle.

Sections 70112 and 70113, establishing an allocation of risk regime, are also amended to cover reentry in the same way that launches are covered. The Committee notes that these provisions apply to losses sustained as a result of licensed activities, (i.e., launches and reentries) not events or activities before launch, between launch and reentry, or after reentry. Once a launch or a reentry is completed no protection against third party liability is intended to be provided under Chapter 701 unless there is a clear causal nexus between the loss and the behavior of the launch or reentry vehicle. For instance, if, subsequent to a launch vehicle's successful deployment of a payload that is not a reentry vehicle, the payload returns to Earth and causes third party loss, the loss is not intended to be covered by sections 70112 and 70113. As another example, if during an airborne launch, the aircraft suffers an accident after the vehicle has separated from the aircraft and taken off, and the accident is not attributable to the launch vehicle, then this event is also not intended to be covered by sections 70112 and 70113.

To clarify applicability of sections 70112 and 70113 to licensed activities, the Committee recommends that the Secretary initiate a rule-making action to address both launch and reentry insurance and allocation of risk requirements as soon as reasonably practicable following enactment of this bill.

Two new sections were added to Chapter 701, Sections 70120 and 70121. Section 70120 requires the Secretary of Transporation within six months after the date of enactment, to issue regulations to give industry guidelines and procedures related to insurance, licenses and government indemnification. Section 70121 requires the Secretary of Transportation to submit an annual report on the activities undertaken under Chapter 701 and the performance of OCST.

Additional amendments authorizing criteria for license application acceptance

Section 251 also amends Chapter 701 to authorize the Secretary to issue regulations establishing criteria for acceptance of a license application. The acceptance or rejection must be made within 60 days of receipt of the application. The purpose of this amendment is to (1)limit the undue expenditure of Office resources on determining whether an application is viable, and (2)to provide the applicant with timely notice of whether the application will be accepted.

SECTION 252. REQUIREMENT FOR INDEPENDENT COST ANALYSIS

Section 252 requires the NASA Chief Financial Officer to conduct independent cost analyses of projects estimated to cost in excess of $75,000,000 in total project costs, and to report the results of the analyses to the Congress. The cost analysis is to occur before the

project enters Phase C. The Committee views this provision as critical to its ongoing oversight and authorization responsibilities, as well as Congressional support for current and future NASA programs.

SECTION 253. OFFICE OF SPACE COMMERCE

Within the Department of Commerce, there shall be established an Office of Space Commerce, with primary responsibilities to include: the promotion of private sector investment in space activities; assisting the United States commercial providers in their efforts to do business with the United States Federal Government; ensuring that the United States Federal Government not compete with the private sector in the provision of space hardware and services otherwise available from the private sector; promoting the export of space-related goods and services; representing the Department of Commerce in the development of United States' policies in negotiations with foreign governments to ensure fair and equal trade; seeking the removal of legal, policy, and institutional impediments to space policy; and licensing private remote sensing space systems and supporting the private sector's role in the commercial development of Landsat remote sensing data distribution.

SECTION 254. NATIONAL AERONAUTICS AND SPACE ACT OF 1958 AMENDMENTS

Automotive Research

Section 102 of the National Aeronautics and Space Act of 1958 is amended to delete subsection (f), which relates to automotive research. With a declining budget profile for the next five years, the Committee recommends that NASA concentrate its resources on basic aeronautics and space research.

Reports to the Congress

Section 254 amends the National Aeronautics and Space Act of 1958 to conform to Executive Branch practice the statutory requirement for the President to submit a report on governmental aeronautics and space activities and accomplishments, and to allow adequate time to prepare the report. Accordingly, the President is required to submit to Congress the annual aeronautics and space report in May, rather than January; and to address in the report activities carried out by government agencies on a fiscal, rather than calendar, year basis.

Disclosure of technical data

Section 254 also amends the National Aeronautics and Space Act of 1958 by the addition of provisions that authorize the Administrator at his discretion or at the request of a private sector entity, to withhold from public disclosure technical data generated in the performance of experimental, development, or research activities funded jointly by NASA and the private sector that would enhance U.S. aerospace industry competitiveness.

Under existing authority (42 U.S.C. 22454(b)), NASA is authorized to withhold from public disclosure for a period not to exceed five years, technical data that (1) results from activities conducted under an agreement entered into under section 203(c)(5) and (6) of the National Aeronautics and Space Act of 1958, and (2) would be exempt from disclosure as a trade secret or commercial or financial

information privileged or confidential under the Freedom of Information Act if it were obtained from a non-governmental participant in the activities. However, this authority does not necessarily apply to the product of jointly-funded research and development initiatives.

The absence of appropriate protection for commercially-sensitive data can be an obstacle to industry involvement and investment in cooperative projects with NASA. Private sector participation and cost-sharing in NASA projects could be encouraged by allowing temporary protection for certain kinds of commercially sensitive data that may emerge from cooperative initiatives. At the same time, the Committee supports fundamental principles of open access to federal government information that underlie the Freedom of Information Act.

The amendment set forth in Section 254 seeks to balance these competing interests. Subject to issuance of regulations implementing this provision, the Administrator is authorized to afford limited and temporary protection for up to five years of technical data generated in the course of joint NASA-private sector research activities and programs as long as such activities include cost-sharing by the industry partners. "Technical data" is defined as any recorded information, including computer software that is, or may be, directly applicable to the design, engineering, development, production, manufacture, or operation of products or processes that may have significant value in maintaining leadership or competitiveness in civil and governmental aeronautical and space activities by the United States industrial base. Regulations required to be issued are to include guidance for evaluating data from cooperative projects to determine whether it is encompassed by the definition of "technical data;" specification of the period(s) of nondisclosure for different types of technical data, including a requirement that the full five-year nondisclosure period is available only if the private sector share of funding is at least 50%; and identification of those experimental, developmental, or research activities that could generate technical data protected under this amendment. The Committee believes that NASA should study whether the regulations should provide for a sliding scale that would provide longer periods of protection for larger amounts of cost-sharing by industry. Cost-sharing means the expenditure by industry of non-federal, private funds directly on the joint research activities.

SECTION 255. PROCUREMENT

This section establishes a program of expedited technology procurement to demonstrate how innovative technology concepts generated by the private sector can quickly be brought to bear upon NASA space missions.

Subsection (a) creates a procurement demonstration program within the Office of Space Access and Technology with a sunset provision of ten years. At least one percent of the amounts authorized for the Office of Space Access and Technology shall be used for innovative technology procurement of space hardware, technology or services from the private sector. The purpose of this initiative is not to create additional requirements for the agency. Instead, the Administrator is expected to conduct this pilot program in the context of normal procurement activities for which NASA has already

identified a mission requirement. Several programs, such as the Explorer program in space sciences and the New Millennium program, have a technology demonstration timeline and flight schedule that would seem to accommodate this section.

The Administrator is given special authority to hire, for limited term appointments, persons outside of NASA with expertise in relevant innovative technology concepts. In the past, NASA has been unreceptive to new solutions or ideas that came from outside the agency. This subsection is designed to generate creative solutions from the private sector which shall be applied to the missions of NASA.

Subsection (b) calls for a technology procurement initiative wherein the Administrator is required to certify that no functional equivalent of space hardware, technology, or service exists in the commercial sector or other, non-NASA federal agency before NASA can proceed with any procurement. The Administrator is required to comment in the Commerce Business Daily. This subsection is intended to ensure that NASA pursues "off-the-shelf" technology available from the private sector or another non-NASA federal agency before soliciting a more expensive one-of-a-kind procurement.

SECTION 256. ADDITIONAL NATIONAL AERONAUTICS AND SPACE ADMINISTRATION FACILITIES

This section requires the Administrator to notify Congress, prior to construction or lease of new facilities, that the Administrator reviewed existing NASA or other federally-owned facilities and found no such facilities appropriate for the intended use.

SECTION 257. PURCHASE OF SPACE SCIENCE DATA

This section requires NASA, to the maximum extent possible, to purchase space science data from the private sector, where cost effective, and to accomplish these procurements through a competitive bidding process. Reasonable performance specifications, rather than design, or construction specifications, shall be used to the maximum extent feasible.

The purpose of this section is to encourage the Administrator of NASA to acquire space science data commercially. For those data sets with both scientific merit and commercial appeal, NASA can spur commercial enterprises while acquiring the data faster and cheaper.

SECTION 258. PLAN FOR MISSION TO PLANET EARTH

The Administrator shall, within six months after the date of enactment of this Act, transmit to Congress a report on Mission to Planet Earth including the following: (1) an analysis of Earth observation systems of other countries to include current and historical data sets; (2) an analysis of how Department of Defense airborne and space sensor systems could be used in MTPE; (3) a plan for infusing advanced technology into the MTPE program including milestones and an identification of available resources; (4) a plan to solicit proposals from the private sector on how to innovatively accomplish the most critical research on global climate change; (5) an integrated plan for research in the Scientific and MTPE enterprises in NASA; (6) a plan for developing metrics and milestones

to quantify the performance of MTPE; and, (7) a plan for the role and structure of EOSDIS.

SECTION 259. ACQUISITION OF EARTH REMOTE SENSING DATA

The Office of Management and Budget added $50,000,000 to NASA's FY97 request for Mission to Planet Earth for the purpose of purchasing earth remote sensing data from the private sector. The Committee commends OMB and NASA for this effort, which is consistent with the Committee's recommendations for FY96 and should help reduce MTPE costs. To ensure that data purchases are leveraged for the greatest scientific return, the Committee directs that NASA conduct a study of mechanisms by which the agency can leverage the multi-billion Geographic Information Systems/ commercial remote sensing industry against MTPE science goals.

The aforementioned study should: (1) describe how NASA can evaluate and foster commercial data sources, archiving services, applications, and distribution for Mission to Planet Earth data; (2) identify means by which NASA can develop specific data applications which foster the use of commercial data for Mission to Planet Earth; (3) identify mechanisms by which NASA can demonstrate the performance of commercial solutions to Mission to Planet Earth requirements; (4) provide recommendations to Congress on the fundamental scientific research and technology development initiatives needed to meet Mission to Planet Earth data requirements not met by the U.S. private sector; (5) identify means of facilitating feedback from NASA to the private sector on opportunities for enhanced provision of commercial services that meet Mission to Planet Earth requirements; and (6) identify existing policy, regulatory, and/or legislative barriers to implementing an effective partnership between the private and public sectors in meeting Mission to Planet Earth data requirements. This study should go into greater detail on commercial solutions for Mission to Planet Earth data requirements than the overall review of Mission to Planet Earth required in Section 258.

The Committee notes that NASA's Commercial Remote Sensing Program within the Office of Space Access and Technology has the most experience in working with the private sector in acquiring and applying commercially-generated data and directs the NASA Administrator to conduct this $50,000,00 pilot program under the management of the Commercial Remote Sensing Program, based at Stennis Space Center.

SECTION 260. SHUTTLE PRIVATIZATION

Sectional Analysis and Recommendation

NASA is currently conducting negotiations for an orderly transition from the federal operation, or federal management of contracted operation, of space transportation systems to the federal purchase of commercial space transportation services. As part of these preparations, the Administrator shall plan for the potential privatization of the Space Shuttle program after the year 2012. Nothing shall preclude NASA from studying, designing, developing, or funding upgrades or modifications essential to the safe and economical operation of the Space Shuttle fleet.

The Administrator shall conduct a feasibility study of implementing the recommendations of the Independent Shuttle Management Review Team that NASA transition toward the privatization of the space shuttle. The study shall address the major policy issues that must be addressed before the shuttle program can be privatized which include: whether the federal government or the contractor should own the orbiter fleet and the associated ground facilities; indemnification by the federal government for third party liability; prioritization of missions, whether payloads other than NASA payloads should allowed to be launched; whether commercial payloads should be allowed to be launched; prioritization of federal and no-federal payloads; whether the public interest requires that certain shuttle functions continue to be performed by the federal government; and, how much cost savings, if any, will be generated by privatization.

Committee View

In order to realize cost savings in the shuttle program, the Committee directs the NASA Administrator to continue to move forward with the negotiations with United Space Alliance for a single prime contract. Further, the Committee directs that the Administrator give priority to continued safe operation of space transportation systems.

The Committee is interested in receiving expert input on potential privatization from United Space Alliance. Privatization is the next logical step beyond consolidation of existing contracts and should be carried out in a manner that provides for a safe and efficient transition to private enterprise.

SECTION 261. LAUNCH VOUCHER DEMONSTRATION PROGRAM AMENDMENTS

Sectional Analysis

Launch Voucher Demonstration Program Amendments, Section 504 of the fiscal year 1993 National Aeronautics and Space Administration Act (P.L. 102-588) is amended by striking out outdated references to dates and offices.

SECTION 262. PRIVATIZATION OF MICROGRAVITY PARABOLIC FLIGHT OPERATIONS

The Committee directs the privatization of all parabolic microgravity flight aircraft operations conducted by or for NASA. The Administration is required to issue a request for proposals to provide services which meet all or part of the microgravity flight needs of NASA Within six months after the issuance of the request for proposals, the Administrator shall, where cost-effective , award one or more contracts. The Committee's intent in adopting this course of action is to accelerate the development of a new commercial space-related industry and save scarce federal resources. The Committee believes that such action is consistent with the desire Congress and the NASA Administrator have expressed to spin off NASA activities that can be performed by the private sector at a lower cost.

The Committee's intention in privatizing microgravity flights is to change NASA from a provider of services to the commercial sector into a consumer of services provided by the private sector, which presumably will also earn revenue and cover overhead ex-

penses from private-sector consumers of such services. Prior to discontinuing its own microgravity parabolic flights, as required by this section, NASA should report to the House Committee on Science and the Senate Committee on Commerce, Science, and Transportation any shortfalls in the private sector's ability to meet NASA needs, any steps NASA can take to help the private sector rectify those shortcomings, and the expected budgetary impact of privatizing microgravity flights.

The Administrator may continue to operate the agency's parabolic flight aircraft for up to three months following the award of a contract in order to retain continuity. However, should the agency continue operations past this period, written justification must be received by the Committee prior to the end of the three months. Further, six months after the termination of NASA parabolic flight operations, the Administrator shall report to Congress on the cost effectiveness of the privatization of this operation.

SECTION 263. UNITARY WIND TUNNEL PLAN ACT OF 1949 AMENDMENTS

Sectional Analysis

This section reflects the fact that the Unitary Wind Tunnel Act of 1949, as amended in 1958 does not include provisions for hypersonic facilities. It is further amended to include research and engineering centers along with laboratories for construction or expansion of wind tunnel facilities covered under the Act.

Committee View

The Committee directs the timely completion of the National Facilities Study into the development of advanced aeronautic facilities. The Committee also recognizes that NASA and its industry partners are aggressively pursuing alternative plans which consider fewer new facilities, the utilization of existing infrastructure for development of new facilities, and increased cost-sharing for their construction. Unfortunately, the President's budget does not contain a request for funds for new facilities. Before the Committee can favorably consider the authorization of funds for new facilities, industry must prioritize its long-term research needs with those of NASA, the Department of Defense, and other federal agencies, within realistic budgetary constraints.

SECTION 264. USE OF ABANDONED AND UNDERUTILIZED BUILDINGS, GROUNDS, AND FACILITIES

In meeting the needs for additional facilities, the Administrator, whenever feasible, shall select abandoned and underutilized buildings, grounds, and facilities in depressed communities that can be converted to NASA facilities at a reasonable cost, as determined by the Administrator.

Section 265. COST EFFECTIVENESS CALCULATIONS

In the past, NASA has compared the programmatic costs of doing work in-house with the cost it expects the private sector to incur in performing the same activity as a contractor when deciding whether it was more effective to perform work inside the agency or through contractors outside the agency. In some cases, this practice is necessary for estimating how realistic contractor bids are when deciding to award a hardware procurement contract. How-

ever, in cases where the agency is procuring space services, such as buying earth remote sensing or space science data, such comparisons could artificially inflate the cost to the government of acquiring the service, since commercial providers of services presumably cover some of their overhead costs through business with the private sector and the government will only incur the marginal cost of the service procured. Therefore, this provision will require the government to compare the cost of doing missions itself with the cost it is likely to pay as a result of the decision to procure services. When procuring services, the government should have little interest in the service provider's actual total cost, since the government will be entering a market in which the price charged to the government should only require the service provider to recover some portion of his costs. In order to move the government in the direction of acting as a commercial buyer, which will save taxpayer dollars, this provision directs the government only to examine the price of the service procured when comparing the cost of doing work internally with the cost of doing work externally.

The Committee supports the rapid integration of full-cost accounting for agency programs in order to provide a fair comparison of the costs of doing work internally with the costs of procuring a service commercially. Furthermore, full-cost accounting by NASA would be an aid in implementing section 265, which directs NASA to compare its costs against a commercial provider's price when considering out-sourcing work.

SECTION 266. PROCUREMENT OMBUDSMAN

NASA indicates that it is committed to working with the private sector to create commercial space infrastructure through cooperative agreements, innovative procurement actions, and elimination of duplication of private sector activities. Unfortunately, implementing these ideas in practice has proven more difficult than creating them in theory. When such practices break down, private sector organizations (universities, non-profits, and businesses) often must appeal directly to the Administrator, Congress, or the White House to resolve disputes and improve practices. This ad hoc approach is not very efficient, but could be resolved by a procurement ombudsman whose role is to serve as a middleman for the agency to ensure that it does not inadvertently harm the ability of the private sector to finance space infrastructure at private expense.

SECTION 267. AUTHORITY TO REDUCE OR SUSPEND CONTRACT PAYMENTS BASED ON SUBSTANTIAL EVIDENCE OF FRAUD

This section amends 10 USC 2307(h)(8) which deals with actions that certain federal agencies can take in the case of fraud by a contractor. Currently this section applies to DoD, the Department of the Army, the Department of the Navy, and the Department of the Air Force. The section allows these entities to suspend or reduce contract payments when there is substantial evidence that the request of a contractor for advance, partial, or progress payment under a contract awarded by that agency is based on fraud. This amendment would add NASA to the list of agencies that can use this authority.

Title III—United States Fire Administration

UNITED STATES FIRE ADMINISTRATION FY 1997 BUDGET REQUEST SUMMARY

[In millions of dollars]

ACCOUNT TITLE	FY 1996 Estimate	FY 1997 Request	FY 1997 Auth.
United States Fire Administration	28.491	27.56	27.56

Sectional Analysis

Section 301, Short Title

Cites the Act as the "Fire Administration Authorization Act of 1996."

Section 302, Authorization of Appropriations

Authorizes a total of $27,560,000 for fiscal year 1997 for the programs and activities of the Federal Fire Prevention and Control Act of 1974. These programs and activities include public education on fire prevention and control; the collection and analysis of data relating to fire; research and development in fire suppression; the promotion of firefighter health and safety; and the administration of the National Fire Academy in Emmitsburg, Maryland.

Section 303, Fire Safety Systems in Army Housing

Section 31 (c)(1)(A) of the Federal Fire Prevention and Control Act of 1974 requires the installation of hard-wired smoke detectors in all multifamily housing owned or operated by the federal government. The Act requires that the conversion to hard-wired smoke detectors be completed by October 25, 1995. This section amends the 1992 Act to extend the deadline until October 25, 1998, for housing controlled by the Department of the Army.

Section 304, Successor Fire Safety Standards

Amends section 29 of the Federal Fire Prevention and Control Act of 1974 to update National Fire Protection Standards which are no longer current or have been given new designations.

Section 305, Termination or Privatization of Functions

Requires that the Administrator inform the Congress 60 days in advance of an effort to terminate or privatize any USFA activities or programs.

Section 306, Report on Budgetary Reduction

Requires that the Administrator provide Congress with a detailed report, three months after enactment of the Act, on what, if any, programs will be reduced or eliminated in order to meet the final appropriation levels.

Committee Views

During the Basic Research Subcommittee's March 16, 1995 hearing on the United States Fire Administration's budget request, Administrator Brown testified that the USFA was in the process of privatizing the Harvard Fellowship Program and the Open Learning Program. While these are good training programs for the fire service, in these times of decreasing federal budgets, programs and activities that can be performed by the private sector should be privatized. The Committee supports and encourages these privatization efforts by the Administrator.

Also during the hearing, the Administrator was asked about the possibility of privatizing the residential sprinkler program. A Sub-

committee Member asked specifically if the raw testing and product development could be taken over by a private entity. She responded that the sprinkler program would be examined with those questions in mind.

The Committee believes that one of the best fire protection technologies for the private home is a sprinkler system; however, the federal role in the residential sprinkler program should end once the technical matters are resolved. It becomes the job of the private sector to market sprinkler systems and state and local governments to establish and enforce building codes. The Committee strongly believes that establishing rules and regulations for the implementation of home sprinkler systems is a state or local responsibility.

Army Housing

Early in 1995, the Department of the Army met with Committee staff to update their status with the implementation of the Fire Administration Authorization Act of 1992, Public Law 102-522. This Act established a requirement to replace battery operated smoke detectors with hard-wired smoke detectors in all federally owned or controlled multi-family housing by October 25, 1995. The Army explained that they will have approximately 8,500 dwellings of over 96,000 that will not be in compliance by the deadline. They subsequently wrote the Committee Chairman requesting that an extension be granted until October 25, 1998 to fully comply with the law (see below).

The Army has assured the Committee that the additional time needed will not place military personnel and their families at risk. At the present time, all Army family housing dwelling units in the United States have at least one hard-wired smoke detector as well as battery operated smoke detectors on each floor.

The Committee appreciates the efforts of the Army to ensure that all family housing is safe for military personnel and their families, but urges the Army to work diligently to finish the installation of hard-wired smoke detectors as soon as possible.

Joint Training

The Oklahoma City bombing incident pointed out the importance of fire service management training that includes law enforcement and emergency technicians. The incident commander was the fire chief and the law enforcement, emergency professionals and others reported to him. While every effort will be made to prevent additional bombings from occurring in the United States, large fires, explosions and natural disasters will require that same type of incident management. The Committee is aware that a limited amount of this incident command management training is currently available at USFA, and directs the USFA to increase joint training efforts in order to meet such challenges in the future. Moreover, the Committee urges the USFA to examine the possibility of decreasing funding for lower priority projects in order to accomplish this objective.

Merging FEMA Training

Throughout the United States, emergency and fire services are being combined under the management of the fire service. More often than not, this is done for reasons of economy and efficiency.

Within the USFA there is the National Fire Academy (NFA), and separately and additionally within FEMA there exists a training division with emphasis on emergency management. The Committee understands that there is some coordination and cooperation between the two training divisions. However, as at the state and local level, the American people are demanding a reduction in the size of government and elimination of redundancy. To that end, it makes sense to again study the possibility of combining these two training programs.

The Committee directs the USFA to prepare a report on combining the fire and emergency management programs. The report should contain the strengths and weaknesses of each policy option presented. The report is to be presented to Congress along with the USFA's fiscal year 1998 budget request.

Fire Service Training

The USFA has an outstanding record of training managers in the fire service community. This is a Congressionally mandated role for the USFA, and should be conducted so as to not duplicate or overlap with the training of state and local governments or the private sector. If fire budgets of state or local governments are reduced however, it is especially important that the USFA training reach all levels of the urban and rural fire service community. In order to accomplish this task, the Committee urges the USFA to develop more distance learning technologies that would reach fire stations nationwide. The Committee urges the USFA to direct more management training at the mid-level fire chief. Such training is lacking throughout the United States.

Title IV—National Oceanic and Atmospheric Administration

The following table provides a summary of the amounts requested (using the President's March 1996, request) and the levels authorized for appropriation by the bill (in the column labeled "FY 1997 Mark"). Also included are current year estimates (in the column labeled FY 1996 Conference") as well as comparisons of the Committee recommendation with both current year estimates and the 1997 request.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
NATIONAL OCEAN SERVICE:						
Mapping, charting, and geodesy	52,816	56,667	58,916	56,663	-4	-2,253
Observation and assessment	64,659	59,249	65,874	46,075	-13,174	-19,799
Ocean and coastal management*	66,811	59,385	64,716	10,927	-48,458	-53,789
Total, National Ocean Service	**184,286**	**175,301**	**189,506**	**113,665**	**-61,636**	**-75,841**
OCEANIC AND ATMOSPHERIC RESEARCH:						
Climate and air quality research	105,042	101,772	122,681	99,272	-2,500	-23,409
Atmospheric programs	46,946	43,446	43,766	43,182	-264	-584
Ocean and Great Lakes programs	88,591	80,726	66,101	68,108	-12,618	2,007
Total, Oceanic and Atmospheric Research	**240,579**	**225,944**	**232,548**	**210,562**	**-15,382**	**-21,986**

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
NATIONAL WEATHER SERVICE:						
Operations and research	513,269	473,758	471,672	445,668	-28,090	-26,004
Systems acquisition	145,429	132,287	198,994	180,201	47,914	-18,793
Total, National Weather Service	**658,698**	**606,045**	**670,666**	**625,869**	**19,824**	**-44,797**
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE (NESDIS)						
Satellite observing systems	351,741	430,371	486,933	419,094	-11,277	-67,839
Environmental data management systems	35,665	41,165	44,898	41,165	0	-3,733
Total, NESDIS	**387,406**	**471,536**	**531,831**	**460,259**	**-11,277**	**-71,572**
PROGRAM SUPPORT:						
Administration and services	74,697	62,206	64,694	60,706	-1,500	-3,988
Marine services	62,011	61,100	56,292	56,292	-4,808	0
Aircraft services	10,453	9,153	10,182	9,153	0	-1,029
Total, program support	**147,161**	**132,459**	**131,168**	**126,151**	**-6,308**	**-5,017**
NATIONAL MARINE FISHERIES SERVICE (NMFS)*						
Total, NMFS	**321,650**	**281,642**	**305,640**	**240,000**	**-41,642**	**-65,640**
General reduction to operations, research and facilities	0	0	0	-11,147	-11,147	-10,000
Total, Operations, Research and Facilities	**1,939,780**	**1,892,927**	**2,061,359**	**1,765,359**	**-127,568**	**-296,000**
Construction	79,883	50,000	37,366	29,570	-20,430	-7,796
NOAA fleet modernization	22,936	8,000	12,000	0	-8,000	-12,000
Other	2,199	2,477	3	0	-2,477	-3
TOTAL, NOAA	**2,044,798**	**1,953,404**	**2,110,728**	**1,794,929**	**-158,475**	**-315,799**

*Not in the bill or Committee jurisdiction.

Sectional Analysis

Sec. 401. Short Title

Entitles the title the "National Oceanic and Atmospheric Administration Authorization Act of 1996."

Sec. 402. Definitions

Section 2 defines: (1) "Act of 1890" as the Act entitled "An Act to increase the efficiency and reduce the expenses of the Signal Corps of the Army, and to transfer the Weather Bureau to the Department of Agriculture"; (2) "Act of 1947" as the Act entitled "An Act to define the functions and duties of the Coast and Geodetic Survey, and for other purposes"; (3) "Act of 1970" as the Act entitled "An Act to clarify the status and benefits of commissioned officers of the National Oceanic and Atmospheric Administration, and for other purposes"; (4) "Administrator" as the Administrator of the National Oceanic and Atmospheric Administration; and (5) "Secretary" as the Secretary of Commerce.

SUBTITLE A.—ATMOSPHERIC, WEATHER, AND SATELLITE PROGRAMS

Sec. 411. National Weather Service

(a) Authorizes $445,668,000 for fiscal year 1997 for operations and research activities of the National Weather Service.

(b) (1)Authorizes $64,991,000 for fiscal year 1997 for acquisition of major public warning and forecast systems. None of the funds authorized under this subsection can be used for the purposes for which funds are authorized under subsection (e). None of the funds authorized under this subsection shall be used for the purposes for which funds are authorized under section 102 (b) of the NOAA Authorization Act of 1992 (Public Law 102-567), which authorizes NEXRAD. None of the funds authorized for NEXRAD will be expended for a particular NEXRAD installation unless: (A) it is identified as a National Weather Service NEXRAD installation in the National Implementation Plan for modernization of National Weather Service required under section 703 of the NOAA Authorization Act of 1992 (Public Law 102-567); or (B) it is to be used only for spare parts, not as an installation at a particular site. (2) Of the amount authorized for the National Weather Service, $42,935,000 shall be for NEXRAD program management, operations, and maintenance.

(c) Further clarifies that no funds may be obligated for NEXRAD installations not identified in the National Implementation Plan for 1996, unless the Secretary certifies that such NEXRAD installations can be acquired within the authorization for NEXRAD contained in section 102(b) of the NOAA Authorization Act of 1992.

(d) Authorizes $10,056,000 of the sums authorized in subsection (b)(1) in fiscal year 1997 for (1) the Automated Surface Observing System; and (2) the Automated and Remote Automated Meteorological Observing System.

(e) Authorizes an aggregate of $271,166,000 for all fiscal years beginning

after September 30, 1996, to remain available until expended to complete the acquisition and deployment of the Advanced Weather Interactive Processing System (AWIPS) and NOAA Port and associated activities, including program management and operations and maintenance through September 30, 1999. No funds are authorized to be appropriated unless within 60 days after submission of the President's budget request the Secretary certifies to Congress that (1) the systems meet the technical performance specifications in the system contract as in effect on August 11, 1995; (2) the systems can be fully deployed, sited, and operational without requiring further appropriations beyond amounts authorized; (3) the Secretary does not see any delays in the deployment and operations schedule; or the Secretary must submit to Congress a report which describes the circumstances, the remedial actions undertaken or to be undertaken, the effects of such circumstances on the systems deployment and operations schedule and systems coverage, and a justification for proceeding with the program.

(f) Authorizes $11,000,000 for the planning, design, and land acquisition related to the construction of Weather Forecasting Offices.

(g) Repeals certification requirements under sections 706 and 707 of the Weather Service Modernization Act (15 U.S.C. 313 note) for closure of Weather Service offices and conforms the Act accordingly.

Sec. 412. Atmospheric Research

(a) Authorizes $99,272,000 for Climate and Air Quality Research, including interannual and seasonal climate research and long-term climate and air quality research;

(b) Authorizes $43,182,000 for Atmospheric Programs, including research for developing improved prediction capabilities for atmospheric processes, as well as solar-terrestrial research and services.

Sec. 413. National Environmental Satellite, Data, and Information Service

(a) Authorizes $308,473,000 for Satellite Observing Systems including spacecraft procurement, launch, and associated ground station systems involving polar orbiting and geostationary environmental satellites (GOES), as well as the operation of such satellites. None of these funds will be used for GOES I-M, authorized under section 105(d) of the NOAA Authorization Act of 1992.

(b) Authorizes $147,664,000 of the sums authorized in subsection (a) for the procurement and launch of, and supporting ground systems for, Polar Orbiting Environmental Satellites (POES) K, L, M, N, and N1.

(c) Authorizes $70,757,000 of the sums authorized in subsection (a) for GOES NEXT to procure up to three additional Geostationary Operational Environmental NEXT Satellites instruments, and supporting ground systems.

(d) Authorizes $39,500,000 for the procurement of the National Polar Orbiting Operational Environmental Satellite System and the procurement of the launching and supporting ground systems of such satellites.

(e) Authorizes $44,898,000 for Environmental Data and Information Services including climate data services, geophysical data services, and environmental assessment and information services.

SUBTITLE B.—MARINE RESEARCH

Sec. 421. National Ocean Service

(a) Authorizes $36,500,000 for Mapping and Charting activities under the Act of 1947.

(b) Authorizes $20,163,000 for Geodesy activities under the Act of 1947.

(c) (1) Authorizes $11,000,000 for Observation and Prediction activities under the Act of 1947; (2) authorizes $3,000,000 for Ocean and Earth Science activities.

(d) (1) Authorizes $2,674,000 to support Estuarine and Coastal Assessment activities under the Act of 1947; (2) authorizes $21,925,000 for the National Status and Trends, the Strategic Environmental Assessment, and the Hazardous Materials Response Programs; and (3) authorizes $1,200,000 for the Damage Assessment Program.

Sec. 422. Ocean and Great Lakes Research

(a) Authorizes $14,808,000 for Marine Prediction Research activities under the Act of 1947, the Act of 1890, and any other law involving those activities.

(b) Amends Section 212(a) of the National Sea Grant College Program Act

(33 U.S.C. 1131(a)) to read as follows:

"(a) GRANTS AND CONTRACTS; FELLOWSHIPS.—There are authorized to be appropriated to carry out sections 205 and 208, $34,500,000 for fiscal year 1997.".

(c) Authorizes $17,300,000 for the Coastal Ocean Program.

SUBTITLE C.—PROGRAM SUPPORT

Sec. 431. Program Support

(a) Authorizes $20,000,000 for Executive and Administrative activities under the Act of 1970 and any other law involving those activities.

(b) Authorizes $33,000,000 for Central Administrative Support activities under the Act of 1970 and any other law involving those activities.

(c) Authorizes $7,706,000 for retired pay of retired commissioned officers of NOAA under the Act of 1970.

(d) (1) Gives the Secretary the authority to contract out for the use of vessels to acquire data as necessary. The Secretary shall enter into these contracts unless the cost of the contract is more than the cost for NOAA to perform the service itself, the contract is for more than seven years or the data is acquired through a vessel agreement pursuant to paragraph (4).

(2) The Secretary may not enter into any contract for the construction, lease-purchase, upgrade, or service life extension of any vessel.

(3) (A) The Secretary is subject to limitations when acquiring data under multiyear contracts. (B) The Secretary may not enter into a contract pursuant to this paragraph unless the Secretary finds that there is a reasonable expectation that throughout the contemplated contract period the Secretary will request from Congress funding for the contract at the level required to avoid contract termination. (C) The Secretary may not enter into a contract pursuant to this paragraph unless the contract includes: (i) a provision obligating the U.S. to make payments for any fiscal year subject to appropriations provided in advance for those payments; (ii) a provision that specifies the term of effectiveness of the contract; (iii) and appropriate provisions in case of any termination of the contract that the U.S. shall be liable for the lesser of an amount specified in the contract for such a termination or amounts that were appropriated before the date of the termination for the performance of the contract or for procurement of the type of acquisition covered by the contract and are unobligated on the date of the termination.

(4) The Secretary shall use excess capacity of University National Oceanographic Laboratory System vessels where appropriate.

(5) Authorizes $56,292,000 for Marine Services activities.

(e) Authorizes $9,153,000 for Aircraft Service activities (including aircraft operations, maintenance, and support) under the Act of 1970 and any other law involving those activities.

(f) Authorizes $7,546,000 for facilities repairs and renovations.

SUBTITLE D.—STREAMLINING OF OPERATIONS

Sec. 441. Programs

(a) The following programs and accounts are terminated:

(1) The National Undersea Research Program;

(2) The Fleet Modernization, Shipbuilding, and Construction Account;
(3) The Charleston, South Carolina, Special Management Plan;
(4) Chesapeake Bay Observation Buoys;
(5) Federal/State Weather Modernization Grants;
(6) The Southeast Storm Research Account;
(7) National Institute for Environmental Renewal;
(8) The Lake Champlain Study;
(9) The Maine Marine Research Center;
(10) The South Carolina Cooperative Geodetic Survey Account;
(11) Pacific Island Technical Assistance;
(12) VENTS program;
(13) National Weather Service non-Federal, non-wildfire Fire Weather Service;
(14) National Weather Service Regional Climate Centers;
(15) National Weather Service Samoa Weather Forecast Office Repair and Upgrade Account;
(16) Dissemination of Weather Charts (Marine Facsimile Service);
(17) The Southeast United States Caribbean Fisheries Oceanographic Coordinated Investigations Program;
(18) National Coastal Research and Development Institute Account; and,
(19) Global Learning and Observations to Benefit the Environment program.

(b) The Secretary, no later than 60 days after the date of this Act's enactment, will submit a report to Congress certifying that all programs listed in subsection (a) will be terminated by September 30, 1996.

(c) (1) Repeals the Sea Grant Knauss Fellowship and International Doctoral Fellowship Programs (Section 208(b) of the National Sea Grant College Program Act (33 U.S.C. 1127(b)) and Section 3 of the Sea Grant Program Improvement Act of 1976 (33 U.S. C. 1124a)). (2) Conforms the National Sea Grant College Program Act to changes made in (c).

(d) Repeals the NOAA Fleet Modernization Act (33 U.S.C. 851 note).

Sec. 442. Limitation on Appropriations

(a) Authorizes no more than $1,765,359,000 to be appropriated to the Secretary to carry out all activities under NOAA's Operations, Research, and Facilities account.

(b) Authorizes no more than $20,000,000 of the sums appropriated to the Operations, Research, and Facilities account for travel and related expenses for NOAA personnel.

Sec. 443. Termination of the Corps of Commissioned Officers

(a) No commissioned officers are authorized for any fiscal year after fiscal year 1996, notwithstanding section 8 of the Act of June 3, 1948 (33 U.S.C. 853g).

(b) Commissioned officers separated from NOAA's active list shall be eligible only for severance pay, in accordance with the terms and conditions of section 5595 of title 5, United States Code.

(c)(1) Allows commissioned officers subject to subsection (a) to transfer to the armed services subject to the approval of the Secretary of Defense.

(2) Allows commissioned officers subject to subsection (a) to transfer to the U.S. Coast Guard subject to the approval of the Secretary of Transportation.

(3) Allows commissioned officers subject to subsection (a) to be employed by NOAA as a member of the civil service subject to the approval of the Administrator of NOAA. However, no additional NOAA positions beyond those already in existence may be created pursuant to this paragraph.

(4) Before December 1, 1996, the Administrator must submit to Congress a report listing all officers employed by the NOAA under paragraph (3), a description of their responsibilities as a member of the NOAA Corps, and a description of their responsibilities as civil service employees of NOAA.

(d)(1) Repeals the following provisions of law:

(A) The Coast and Geodetic Survey Commissioned Officers' Act of 1948.

(B) The Act of February 16, 1929.

(C) The Act of January 19, 1942.

(D) Section 9 of Public Law 87-649.

(E) The Act of May 22, 1917.

(F) The Act of December 3, 1942.

(G) Sections 1 through 5 of Public Law 91-621.

(H) The Act of August 10, 1956.

(I) The Act of May 18, 1920.

(J) The Act of July 22, 1947.

(K) The Act of August 3, 1956.

(L) All other Acts inconsistent with this subsection.

Following the repeal of provisions under this paragraph, all retirement benefits for the NOAA Corps which are in existence on September 30, 1996, shall continue to apply to eligible NOAA Corps officers and retirees.

(2) The effective date of the repeals under paragraph (1) shall be October 1, 1996.

(e) As of September 30, 1996, the Office of the NOAA Corps of Operations and Commissioned Personnel Center will be abolished.

SUBTITLE E.—MISCELLANEOUS

Sec. 451. Weather Data Buoys

(a) Prohibits unauthorized persons from interfering with any National Data Buoy Center weather data buoys.

(b) Authorizes the Administrator to assess a penalty of not more than $10,000 for each violation of this section.

(c) Authorizes the Administrator to offer and pay rewards for information regarding violations of this section.

Sec. 452. Duties of the National Weather Service

(a) Provides that the Secretary of Commerce, in order to protect life and property and enhance the national economy, through the National Weather Service, shall be responsible for forecasts and shall serve as the sole official source of weather warnings; the issue of storm warnings; the collection, exchange, and distribution of meteorological, hydrological, climatic, and oceanographic data and in-

formation; and the preparation of hydrometeorological guidance and core forecast information.

(b) Stipulates that the National Weather Service will not compete with the private sector when a service is provided or can be provided by commercial enterprise unless the Secretary finds that the private sector is unwilling or unable to provide the service, and the service provides vital weather warnings and forecasts for the protection of lives and property of the general public.

(c) Amends the Act of 1890 accordingly.

(d) Requires that the Secretary submit a report to Congress no later than 60 days after the enactment of this Act detailing all National Weather Service activities which do not conform to the requirements of this section and outlining a timetable for their termination.

Sec. 453. National Oceanographic Partnership Program

(a)(1) Creates a National Oceanographic Partnership Program by amending Subtitle C of title 10 of the U.S. Code. (2) Amends the subtitle C of title 10, U.S. Code accordingly.

(b) Not later than December 1, 1996, the Secretary of the Navy shall make

appointments required by section 7902(b) of title 10, U.S. Code.

(c) Not later than January 1, 1997, the National Ocean Research Leadership Council shall make appointments required by section 7904 of title 10, U.S. Code.

(d) The National Ocean Research Leadership Council shall submit to Congress the first annual report no later than March 1, 1997. The report should include information about the terms of office, procedures, and responsibilities of the Ocean Research Advisory Panel established by the Council.

(e) No funds are authorized for the National Oceanographic Partnership Program.

Committee Views

Title IV is consistent with the funding levels required to balance the budget by the year 2002. In order to balance the federal budget by the year 2002, significant reductions to NOAA's budget are necessary. The Committee, therefore, supports streamlining NOAA's operations, reducing NOAA's overhead costs and eliminating NOAA's low priority programs which do not support its principal mission.

Subtitle A, B, C.—AUTHORIZATIONS OF APPROPRIATIONS

NATIONAL WEATHER SERVICE

The Committee has authorized an increase of $19,824,000 for the National Weather Service over its FY1996 funding level.

The Committee supports continuation of the National Weather Service's modernization efforts. The Committee believes this funding level is sufficient to ensure that modernization continues on schedule and expects the National Weather Service to make modernization its top priority.

The Committee has reduced the National Weather Service's Operations and Research account by $28 million from the Administration's request. The National Weather Service is expected to meet these reductions by reducing staff and overhead, closing unneeded

weather service offices, and terminating services the private sector is willing and able to provide. The Committee supports the continuation of the National Weather Service's modernization efforts and does not expect these reductions to delay the Service's modernization schedule.

The Committee emphasizes that completion of modernization should be the National Weather Service's top priority. The Committee notes that since 1990 the number of National Weather Service full time equivalents (FTEs) has increased by 66 percent—from roughly 3,300 to 5,500. Although these increases may have been justified during the modernization process, as modernization is completed the Committee expects large savings from significant reductions in staff. These savings will not occur unless modernization is completed on schedule. The Committee notes that the construction of the Weather Forecast Offices account has been authorized to the levels requested by the Administration and expects these levels to be sufficient to meet the Service's current modernization schedule.

The Committee supports the elimination of the certification process required under Sections 706 and 707 of the Weather Service Modernization Act (15 U.S.C. 313 note) for closure of weather service offices. The Committee rejected an amendment in the Full Committee to alter this provision in the bill. The Committee notes that NOAA has calculated the savings from elimination of the certification process at $7.4 million in FY1997 and $35.1 million over five years. The Committee believes that the certification process is burdensome, costly, and that the $35.1 million could be better spent on weather service modernization.

The Committee supports the National Weather Service's plan to downsize the number of its offices by more than half to 118 modernized offices. This downsizing should occur as rapidly as is feasible without jeopardizing the lives and property of the communities whose offices must be closed. The Committee notes that this downsizing will significantly improve the National Weather Service's ability to issue severe weather warnings since the new modernized offices, although fewer in number, will be better equipped to forecast the weather.

The Committee further notes that the bill does not authorize any additional funds for NEXRAD installations beyond those authorized in section 102(b) of the National Oceanic and Atmospheric Administration Authorization Act of 1992, and, therefore, the cost of any additional NEXRAD installations recommended in a future National Implementation Plan would have to be borne within the existing authorization. The Committee does not support the obligation of funds for any NEXRAD installations unless:

1) The NEXRAD is identified in the National Implementation Plan for 1996; or

2) The NEXRAD is identified in a future National Implementation Plan and the Secretary certifies that the NEXRAD installations can be acquired within the authorization for NEXRAD contained in section 102(b) of the National Oceanic and Atmospheric Administration Authorization Act of 1992.

The Committee supports the Administration's request of $10,056,000 for fiscal year 1997 for the Automated Surface Observ-

ing System and the Automated and Remote Automated Meteorological Observing System.

The Committee has fully authorized the acquisition and deployment of the Advanced Weather Interactive Processing System (AWIPS) and NOAA Port. The Committee believes the complete program authorization of $271,166,000 is sufficient to complete the acquisition and deployment of AWIPS and cover all associated activities including program management and operations and maintenance through the end of fiscal year 1999. This figure represents the unexpended balance from the National Weather Service's projected total cost for AWIPS of $525 million.

Of the total authorized, the Committee recommends an appropriations level of $105,000,000 for AWIPS in FY1997. This total is more than double the AWIPS appropriation from FY1996.

The Committee supports the Administration's request of $11,000,000 for fiscal year 1996 for the planning, design, and land acquisition related to the construction of Weather Forecasting Offices.

The Committee supports the Administration's request for NEXRAD systems acquisition of $53,145,000.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With (+ or -) FY 1996 Estimate	Mark Compared With (+ or -) FY 1997 Request
NATIONAL WEATHER SERVICE						
OPERATIONS AND RESEARCH:						
Local Warnings and Forecasts	321,671	405,300	409,020	391,950	-13,350	-17,070
Modernization and Restructuring Demonstration and Implementation (MARDI)	115,946	0	0	0	0	0
Radiosonde replacement	1,339	0	4,255	4,255	4,255	0
Susquehanna River Basin Flood System	1,250	669	669	669	0	0
Agricultural and Fruit Frost Program	2,316	0	0	0	0	0
Fire Weather Services	449	0	0	0	0	0
Aviation Forecasts	35,596	35,596	35,596	35,596	0	0
Regional Climate Centers	3,200	2,000	0	0	-2,000	0
De-certification/Privatization	na	na	-10,000	-17,000		-7,000
Subtotal, Local Warnings and Forecasts	**481,767**	**443,565**	**439,540**	**415,470**	**-28,095**	**-24,070**
Central Forecast Guidance	29,015	28,193	29,543	28,198	5	-1,345
Atmospheric and Hydrological Research	2,487	2,000	2,589	2,000	0	-589
Total, Operations and Research	**513,269**	**473,758**	**471,672**	**445,668**	**-28,090**	**-26,004**
SYSTEMS ACQUISITIONS:						
Public Warning and Forecast Systems:						
Next Generation Weather Radar (NEXRAD)	82,982	53,335	53,145	53,145	-190	0
Automated Surface Observing System (ASOS)	17,515	16,952	10,056	10,056	-6,896	0
Advanced Weather Interactive Processing System (AWIPS)/NOAA Port	34,947	50,000	119,800	105,000	55,000	-14,800
Computer Facility Upgrades	9,985	12,000	15,993	12,000	0	-3,993

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
Total, Systems Acquisition	**145,429**	**132,287**	**198,994**	**180,201**	**47,914**	**-18,793**
TOTAL, NATIONAL WEATHER SERVICE	**658,698**	**606,045**	**670,666**	**625,869**	**19,824**	**-44,797**

OCEANIC AND ATMOSPHERIC RESEARCH

The Committee recommends a $15,382,000 decrease for Oceanic and Atmospheric Research from its FY1996 funding level.

The Committee supports funding the Interannual and Seasonal Climate Research which includes climate change research at $65,500,000 for fiscal year 1997. This total represents level funding from FY1996. The Committee notes that the Administration's fiscal year 1997 budget request for global climate change research represents more than a 375 percent increase from fiscal year 1990. The Committee rejected an amendment to increase the funding for the Climate and Air Quality Research account to the level requested by the Administration by a vote of 25 to 15. The Committee believes that the levels included in the bill are sufficient to continue NOAA's climate research programs. In order to meet the reductions included in the bill, the Committee recommends the termination of the VENTS program and the Global Learning and Observations to Benefit the Environment program.

The Committee recommends that NOAA maintain its successful collaboration with the extramural research community in implementing its climate research program. The Committee directs NOAA to allocate at least the same percentage of available resources to extramural research in fiscal year 1997 as it did in fiscal year 1995. The Committee believes that, in order to maintain the highest scientific standards, NOAA's Office of Global Programs should continue to allocate all of its climate research funds through a competitive, peer-reviewed process.

The Committee supports funding atmospheric research at $43,182,000 in fiscal year 1997. This level represents a decrease of $264,000 from current funding for atmospheric programs.

NATIONAL SEA GRANT COLLEGE PROGRAM

The Committee believes that the National Sea Grant College Program's strongest component is the pursuit of scientific knowledge of the marine environment. The Committee supports making scientific research the primary focus of the National Sea Grant College Program. The Committee recommends maintaining funding for Sea Grant marine research while reducing funding for Sea Grant education, outreach and national program administration. By limiting Sea Grant funding to scientific research, the Committee has increased funding for Sea Grant science by roughly 30 percent.

The Committee supports termination of both the Dean John A. Knauss Marine Policy Fellowship and the Sea Grant International Program.

Summary of OAR recommendations

Details of the Committee's recommendations for OAR are outlined in the following table.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
OCEANIC AND ATMOSPHERIC RESEARCH (OAR)						
CLIMATE AND AIR QUALITY RESEARCH:						
Interannual & Seasonal Climate Research/and related Global Climate Change	64,770	65,500	76,712	65,500	0	-11,212
Long-Term Climate and Air Quality Research	27,772	27,272	29,402	27,272	0	-2,130
Vents	0	2,500	0	0	-2,500	0
High Performance Computing	5,500	6,500	9,567	6,500	0	-3,067
Globe	7,000	0	7,000	0	0	-7,000
Total, Climate and Air Quality Research	**105,042**	**101,772**	**122,681**	**99,272**	**-2,500**	**-23,409**
ATMOSPHERIC PROGRAMS:						
Weather Research	37,113	33,613	33,905	33,613	0	-292
Wind Profiler	4,350	4,350	4,350	4,350	0	0
Subtotal, Weather Research	41,463	37,963	38,255	37,963	0	-292
Solar-Terrestrial Services and Research	5,483	5,483	5,511	5,219	-264	-292
Total, Atmospheric Programs	**46,946**	**43,446**	**43,766**	**43,182**	**-264**	**-584**
OCEAN AND GREAT LAKES PROGRAMS:						
Marine Prediction Research	15,175	15,026	14,808	14,808	-218	0
Southeast Fisheries Oceanographic Coordinated Investigations	450	400	0	0	-400	0
Lake Champlain Study	150	0	0	0	0	0
Pacific Island Technical Assistance	190	0	0	0	0	0
Vents	2,496	0	2,500	0	0	-2,500
Total, Marine Prediction Research	**18,461**	**15,426**	**17,308**	**14,808**	**-618**	**-2,500**
SEA GRANT/COP:						
Sea Grant College Program	51,698	53,300	48,793	36,000	-17,300	-12,793
Sea Grant-Oyster Disease	1,500	0	0	0	0	0
National Coastal R&D Institute	1,000	0	0	0	0	0
Subtotal, Sea Grant	54,198	53,300	48,793	36,000	-17,300	-12,793
Subtotal, Coastal Ocean Program	0	0	0	17,300	NA	NA
Total, Sea Grant/COP	**54,198**	**53,300**	**48,793**	**53,300**	**0**	**4,507**
UNDERSEA RESEARCH PROGRAM:						
Total, Undersea Research Program	**15,932**	**12,000**	**0**	**0**	**-12,000**	**0**
Total, Ocean & Great Lakes Programs	**88,591**	**80,726**	**66,101**	**68,108**	**-12,618**	**2,007**
TOTAL, OCEANIC AND ATMOSPHERIC RESEARCH	**240,579**	**225,944**	**232,548**	**210,562**	**-15,382**	**-21,986**

NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE

The Committee recommends a decrease of $11,277,000 to the FY1996 appropriations level for the National Environmental Satellite, Data, and Information Service.

The Committee continues to believe the current NESDIS budget is not sustainable and that the NESDIS budget over the next six years will have to decline. The Committee therefore does not support any NESDIS activities which could lead to significant cost increases in the future. Such activities include the possibility of flying a three GOES satellite configuration in space.

The Committee recommends level funding for the National Polar Orbiting Operational Satellite System (NPOESS). The NPOESS program has been delayed, and a substantial reduction from the Administration's request of $78 million is clearly warranted. The Committee believes that the $39,500,000 authorization provided in the bill is sufficient for the program in FY1997. The Committee, however, has yet to receive adequate justification for even this level of funding from NOAA. Unless this situation is remedied, the Committee may reevaluate the need to spend almost $40 million on NPOESS.

The Committee continues to support funding three, not four, new GOES I-M series "clones." The bill authorizes $70,757,000 for fiscal year 1997 to initiate construction of these satellites.

Summary of NESDIS recommendations

Details of the Committee's recommendations for NESDIS are outlined in the following table.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE (NESDIS)						
SATELLITE OBSERVING SYSTEMS:						
Polar Spacecraft and Launching	146,228	174,765	147,644	147,664	-27,101	20
Polar Convergence/Joint Program Office	16,000	39,500	78,200	39,500	0	-38,700
Geostationary Spacecraft and Launching	132,242	153,106	205,922	181,378	28,272	-24,544
Ocean Remote Sensing	6,000	4,000	1,552	1,552	-2,448	0
Environmental Observing Services	51,271	49,000	53,615	49,000	0	-4,615
LandSat Operations	0	10,000	0	0	-10,000	0
Total, Satellite Observing Systems	**351,741**	**430,371**	**486,933**	**419,094**	**-11,277**	**-67,839**
ENVIRONMENTAL DATA MANAGEMENT SYSTEMS:						
Data and Information Services	24,365	29,865	30,098	29,865	0	-233
Environmental Services Data and Information Management (ESDIM)	11,300	11,300	14,800	11,300	0	-3,500
Total, Environmental Data Management Systems	**35,665**	**41,165**	**44,898**	**41,165**	**0**	**-3,733**
TOTAL, NESDIS	**387,406**	**471,536**	**531,831**	**460,259**	**-11,277**	**-71,572**

PROGRAM SUPPORT

The Committee has reduced the Program Support accounts to reflect the reduced level of effort associated with reductions to other NOAA accounts. The Committee expects NOAA to streamline its

administrative activities and reduce overhead and staff to meet these new funding levels.

The Marine Services account has historically been used to fund personnel to pilot NOAA's fleet. The Committee supports termination of the NOAA fleet at the earliest feasible date and the use of the Marine Services account for contracting for data and days-at-sea.

Summary of Program Support recommendations

Details of the Committee's recommendations for Program Support are outlined in the following table.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
PROGRAM SUPPORT:						
ADMINISTRATION AND SERVICES:						
Executive direction and administration	27,288	21,500	21,009	20,000	-1,500	-1,009
Central administrative support	39,703	33,000	35,573	33,000	0	-2,573
Retired pay commissioned officers	7,706	7,706	8,112	7,706	0	-406
Total, administration and services	74,697	62,206	64,694	60,706	-1,500	-3,988
MARINE SERVICES	62,011	61,100	56,292	56,292	-4,808	0
AIRCRAFT SERVICES:						
Aircraft services	9,153	9,153	10,182	9,153	0	-1,029
Critical safety and instrumentation	1,300	0	0	0	0	0
Total, aircraft services	10,453	9,153	10,182	9,153	0	-1,029
TOTAL, PROGRAM SUPPORT	147,161	132,459	131,168	126,151	-6,308	-5,017

NON-ORF Accounts

The Committee recommends the following specific changes to the fiscal year 1996 request for Non-ORF accounts:

The Committee believes NOAA does not need its own fleet, and that the non-profit and the private sectors are capable of supplying NOAA with the data and/or days-at-sea its missions require.

The NOAA fleet is aging and already requires substantial repair. The Committee notes that a new NOAA fleet would cost over $1 billion. Such an expenditure is inconsistent with efforts to balance the budget by 2002. In light of this fact, the Committee believes that the only cost-effective alternative available to NOAA is the use of the University-National Oceanographic Laboratory System (UNOLS) and private vessels. The Committee sees no reason to extend the life of the NOAA fleet by continuing to build, retrofit, and conduct major repairs on NOAA vessels. The Committee therefore supports a moratorium on the construction and repairs-to-extend (RTEs) of NOAA vessels. The Committee further supports retiring the rest of the NOAA fleet at the earliest possible date.

The Committee recommends that the Secretary of Commerce, in consultation with the Inspector General, develop a plan to dispose of the assets of the NOAA fleet at the earliest date practicable and in a manner that maximizes return to the United States Treasury. The Secretary may consider the benefits of donating vessels to existing UNOLS institutions if the institutions can meet NOAA's re-

search needs in a more cost-effective manner than the current NOAA-owned and operated fleet.

Summary of Non-ORF recommendations

Details of the Committee's recommendations for Non-ORF accounts are outlined in the following table.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
NON-ORF ACCOUNTS:						
CONSTRUCTION:						
NWS modernization and WFO maintenance	20,226	20,300	11,000	11,000	-9,300	0
Facilities Repairs and Renovations	5,003	7,000	7,546	7,546	546	0
New Construction	48,675	10,700	7,796	0	-10,700	-7,796
Environmental compliance*	5,979	12,000	11,024	11,024	-976	0
Total Construction	79,883	50,000	37,366	29,570	-20,430	-7,796

*Not in bill or Committee jurisdiction.

SUBTITLE D.—STREAMLINING OF OPERATIONS TERMINATIONS

The Committee supports terminating the following programs and accounts:

(1) The National Undersea Research Program.

The Committee notes that the Administration did not request funding for this program and considers it a low priority for NOAA. The Committee supports the Administration's position.

(2) The Fleet Modernization, Shipbuilding, and Construction Account.

As noted above, the Committee supports termination of the NOAA fleet modernization effort.

(3) The Charleston, South Carolina, Special Management Plan.

The Committee does not support funding this program.

(4) Chesapeake Bay Observation Buoys.

The Committee does not support funding this program.

(5) Federal/State Weather Modernization Grants.

The Committee does not support funding this program.

(6) The Southeast Storm Research Account.

The Committee does not support funding this program.

(7) National Institute for Environmental Renewal.

The Committee does not support funding this program.

(8) The Lake Champlain Study.

The Committee does not support funding this program.

(9) The Maine Marine Research Center.

The Committee does not support funding this program.

(10) The South Carolina Cooperative Geodetic Survey Account.

The Committee does not support funding this program.

(11) Pacific Island Technical Assistance.

The Committee does not support funding this program.

(12) The VENTS program.

The Committee does not support funding this program.

(13) National Weather Service non-Federal, non-wildfire Fire Weather Service.

In keeping with the Committee's support for eliminating all specialized National Weather Service services which the private sector is willing and able to conduct, the Committee supports the Administration's proposal to terminate this program.

(14) National Weather Service Regional Climate Centers.

The Committee supports the Administration's proposal to terminate this program.

(15) National Weather Service Samoa Weather Forecast Office Repair and Upgrade Account.

The Committee does not support funding this program.

(16) Dissemination of Weather Charts (Marine Facsimile Service).

In keeping with the Committee's support for eliminating all specialized National Weather Service services which the private sector is willing and able to conduct, the Committee supports the Administration's proposal to terminate this program.

(17) The Southeast United States Caribbean Fisheries Oceanographic Coordinated Investigations Program.

The Committee does not support funding this program.

(18) National Coastal Research and Development Institute Account.

The Committee does not support funding this program.

(19) The Global Learning and Education to Benefit the Environment program (GLOBE).

The Committee feels GLOBE is not a priority for NOAA and should not be funded in NOAA's budget.

LIMITATION ON APPROPRIATIONS

The Committee recommends a general reduction to NOAA's travel budget of $11,147,000. The Committee supports reducing NOAA's total travel budget for FY 1997 to $20,000,000.

The Committee recommends a ceiling on the NOAA Operations, Research, and Facilities (ORF) account of $1,765,359,000 for fiscal year 1997. This total is in keeping with the necessary reductions in order to achieve a balanced budget by the year 2002.

REDUCTION IN THE COMMISSIONED OFFICER CORPS

The Committee supports elimination of the NOAA Corps. The Committee supports eliminating the Corps after FY1996. The Committee also recommends that the Secretary not grant severance pay to any Corps officers who are rehired as civilian employees by NOAA. The Committee believes NOAA should only re-hire NOAA Corps officers if they are the best qualified applicants for the job.

SUBTITLE E.—MISCELLANEOUS

DUTIES OF THE NATIONAL WEATHER SERVICE

The Committee supports privatizing National Weather Service specialized weather services. The Committee recommends that the National Weather Service cease to provide services which the private sector is willing and able to provide. The Committee also recommends that the Secretary of Commerce develop criteria for determining which services should be privatized.

The Committee notes that the National Weather Service has a good working relationship with the commercial weather service sec-

tor. The Committee supports the continuation of this close working relationship. The Committee recommends that the National Weather Service continue its practice of collecting, exchanging and distributing weather data and information in real time and in a non-discriminatory manner.

The Committee notes that the National Weather Service is the sole official source of weather warnings. The Committee supports the National Weather Service's role in providing severe weather warnings. The Committee further notes, however, that this designation should in no way preclude private weather forecasters from issuing weather forecasts.

National Oceanographic Partnership Program

The Committee supports the increase of defense-related assets including data and technology to improve the state of U.S. oceanographic research. Further, the Committee supports increased cooperation and coordination among academia, the Federal Government, both defense and non-defense related agencies, and private industry in their respective efforts to study and understand the ocean environment.

REPORTS TO CONGRESS

Under section 441 (b), the Secretary, no later than 60 days after the date of this Act's enactment, will submit a report to Congress certifying that all programs listed in subsection (a) of section 441, Program Terminations, will be terminated by September 30, 1996.

Under section 443 (c)(4), the Administrator shall, before December 1, 1996, transmit to Congress a report listing all NOAA Corps Officers retained by NOAA as civilian employees, along with a description of their responsibilities as both NOAA Corps Officers and in their new civilian capacity.

Under Section 452 (d), the Secretary is required to submit a report to Congress no later than 60 days after the enactment of this Act detailing all National Weather Service activities which do not conform to the requirements of section 452, Duties of the National Weather Service, and outline a timetable for their termination.

Under Section 453(a), the National Ocean Research Leadership Council shall submit a report to Congress by March 1 of each year outlining the following:

(1) a description of the program activities of the previous fiscal year;

(2) an outline of the programs activities during the current fiscal year;

(3) a summary of projects continued from past fiscal years;

(4) a description of the role of the program with any federal interagency coordinating entities; and

(5) a review of the budgetary requirements for the program in the next fiscal year.

Under Section 453(a), the Ocean Research Partnership Coordinating Group shall submit to Congress by February 1 of each year a report on the National Oceanographic Partnership Program.

Under section 453 (d), the National Ocean Research Leadership Council shall submit to Congress the first annual report no later than March 1, 1997. The report should include information about

the terms of office, procedures, and responsibilities of the Ocean Research Advisory Panel established by the Council.

Title V—Environmental Protection Agency

The Committee supports the following funding levels for the programs and activities of EPA's Office of Research and Development:

Proposed Authorization Figures for the EPA Science and Technology Account
[Dollars in Thousands]

Account Title	FY1996 Authorization	Estimated FY1996 App.	FY1997 Request	FY1997 Mark	Mark V FY1997 Request	Mark V FY1996 App.
Total, AIR RESEARCH	**96,300.9**	**95,000.0**	**88,163.2**	**75,519.9**	**-12,643**	**-19,480.1**
Air Quality Research	**93,915.2**	**75,000.0**	**69,723.5**	**74,119.9**	**4,396**	**-880.1**
Criteria Air	57,145.1		26,782.2	41,000.0	14,218	
Air Toxics	6,319.60		9,102.0	12,000.0	2,898	
Indoor Air	0		3,664.2	0	-3,664	
Infrastructure	26,803.8		30,175.1	21,119.9	-9,055	
Global Climate Change	**2,385.7**	**20,000.0**	**18,439.7**	**1,400.0**	**-17,040**	**-18,600.0**
Stratospheric Ozone Depletion	2,385.7		1,256.5	1,400.0	144	
Climate Change Action Plan	0.0		6,200.0	0.0	-6,200	
Climate C. Research/ Infrastruct.	0		10,983.2	0.0	-10,983	
WATER QUALITY RESEARCH	**21,243.1**	**20,000.0**	**26,293.8**	**26,294.0**	**0**	**6,294.0**
Ecosystem Protection	9,188.9		12,007.7	12,007.7	0	
Infrastructure	12,054.2		14,286.1	14,286.1	0	
DRINKING WATER RESEARCH	**20,652.4**	**20,000.0**	**26,593.7**	**26,593.7**	**0**	**6,593.7**
Drinking Water	10,376.5		12,156.6	13,361.6	1,205	
Infrastructure	10,275.9		14,437.1	13,232.1	-1,205	
PESTICIDE RESEARCH	**13,345.2**	**12,000.0**	**20,632.0**	**20,632.0**	**0**	**8,632.0**
Ecosystem Protection	0.0		4,232.9	4,232.9	0	
Human Health Protection	5,531.1		6,270.8	6,887.3	617	
Special Envir. Problems	1,243.3		0.0	0.0	0	
Infrastructure	6,152.4		10,128.3	9,511.8	-617	
TOXIC SUBSTANCES RESEARCH	**11,053.9**	**14,000.0**	**12,341.5**	**12,341.5**	**0**	**-1,658.5**
Ecosystem Protection	974.4		2,982.8	2,982.8	0	
Human Health Project	2,941.2		2,279.7	2,400.0	120	
Special Envir. Problems	1,113.0		220.9	220.9	220.9	0
Infrastructure	6,025.3		6,858.1	6,738.1	-120	
HAZARDOUS WASTE RESEARCH	**21,020.2**	**20,000.0**	**10,343.9**	**12,000.0**	**1,656**	**-8,000.0**
Waste/Site/Risk	1,430.8		1,498.7	3,154.8	1,656	
Waste Management	8,868.1		3,718.1	3,718.1	0	
New Technology	678.8		173.1	173.1	0	
Infrastructure	10,042.5		4,954.0	4,954.0	0	
Total, MULTIMEDIA	**240,943.2**	**265,000.0**	**300,837.0**	**256,346.5**	**-44,491**	**-8,653.5**
Multimedia Research	**158,656.8**	**210,000.0**	**211,786.2**	**174,060.1**	**-37,726**	**-35,939.9**
Ecosystem Protection	47,351.7		58,887.2	58,887.2	0	
New Technologies	12,610.0		40,741.3	13,121.9	-27,619	
Human Health Project	21,983.0		16,065.4	17,000.0	935	
Special Environmental Prob.	1,706.8		7,137.1	8,000.0	863	
Infrastructure	75005.3		88,955.2	77,051.0	-11,904	
Headquarters Infrastructure	**9,254.8**	**7,000.0**	**10,837.2**	**9,254.8**	**-1,582**	**2,254.8**
Lab and Field Expenses	**73,031.6**	**48,000.0**	**78,213.6**	**73,031.6**	**-5,182**	**25,031.6**
MISSION & POLICY MANAGEMENT	**6,399.3**	**7,500.0**	**8,184.7**	**6,399.0**	**-1,786**	**-1,101.0**
Infrastructure	6,399.3		8,184.7	6,399.0	-1,786	
Environmental Research Labs	**na**	**51,000.0**	**85,358.2**	**51,000.0**	**-34,358**	**0.0**
Total, SCIENCE & TECHNOLOGY*	**430,958.2**	**504,500.0**	**578,748.0**	**487,126.6**	**-91,621**	**-17,373.4**
LUST	**769.4**	**650.0**	**681.0**	**769.0**	**88**	**119.0**

Proposed Authorization Figures for the EPA Science and Technology Account
[Dollars in Thousands]

Account Title	FY1996 Authorization	Estimated FY1996 App.	FY1997 Request	FY1997 Mark	Mark V FY1997 Request	Mark V FY1996 App.
Waste Management	589.5		500.0	601.2	101	
New Technologies	12.1		0.0	0.0	0	
Infrastructure	167.8		181.3	167.8	-14	
OIL SPILL RESEARCH	**2,076.9**	**1,500.0**	**1,031.0**	**2,076.9**	**1,046**	**576.9**
Waste Management	**na**		**900.1**	**1,850.0**	**950**	
Infrastructure	na		131.0	226.9	96	

*Excluding Superfund which will be authorized as part of Superfund Reauthorization.

Sectional Analysis

Sec. 501. Short Title

Cites the Act as the "Environmental Research, Development, and Demonstration Authorization Act of 1996".

Sec. 502. Definitions

Defines: (1) "Administrator" as the Administrator of the Environmental Protection Agency; (2) "Agency" as the Environmental Protection Agency; and, (3) "Assistant Administrator" as the Assistant Administrator for Research and Development of the Agency.

Sec. 503. Authorization of Appropriations

(a) Authorizes $487,126,000 for Science and Technology activities, including program management and support, in the areas specified in subsection (b).

(b) Of the sum authorized in subsection (a) there are authorized to be appropriated the following:

(1) $74,119,900 for air related research;

(2) $1,400,000 for global change research;

(3) $26,294,00 for water quality related research;

(4) $26,593,000 for drinking water related research;

(5) $12,341,500 for toxic substances related research;

(6) $73,031,600 for lab and field expenses;

(7) $9,254,800 for headquarters expenses of the Office of Research and Development;

(8) $174,060,100 for multimedia related research expenses of which $5,000,000 shall be for graduate student fellowships;

(9) $6,399,000 for program management expenses;

(10) $20,632,000 for pesticide related research;

(11) $12,000,000 for research related to hazardous waste; and

(12) $51,000,000 for environmental research laboratories.

(c) Additionally authorizes:

(1) $2,076,900 for oil pollution related research; and

(2) $769,000 for research related to leaking underground storage tanks.

(d) No funds are authorized to be appropriated for:

(1) The Environmental Technology Initiative;

(2) The Climate Change Action Plan;

(3) Indoor Air Research;

(4) North Dakota Center for Air Toxic Metals Research;

(5) Drinking water research conducted by the American Water Works Association Research Foundation, other than amounts awarded through a competitive process;

(6) The Water Environmental Research Foundation;
(7) The National Urban Air Toxics Research Center;
(8) The Gulf Coast Hazardous Substances Research Center;
(9) Urban waste management research at the University of New Orleans, other than amounts awarded through a competitive process;
(10) The Resources and Agricultural Policy Systems Program at Iowa State University; or
(11) The Oil Spill Remediation Research Center.

Sec. 504. Scientific Research Review

(a) The Assistant Administrator for Office of Research and Development shall be assigned the duties of:
(1) developing a strategic plan for scientific and technical activities throughout the Agency;
(2) integrating that strategic plan into ongoing Agency planning activities; and
(3) reviewing all Agency research to ensure the research (A) is of high quality, and (B) is not duplicative of any other research being conducted by the Agency.
(b) Requires the Assistant Administrator to submit an annual report to the Administrator of EPA and to Congress detailing:
(1) all Agency research the Assistant Administrator finds is not of sufficiently high quality, and
(2) all Agency research the Assistant Administrator finds duplicates other Agency research.

Sec. 505. Graduate Student Fellowships

Directs the Administrator of the EPA to ensure that any fellowship award to a student selected after the enactment date of this Act is used only to support research that would further the missions of the Office of Research and Development in fields in which there exists, or is projected to exist, a shortage of scientists.

Sec. 506. Science Advisory Board

(a) Requires the Science Advisory Board (SAB) to submit to Congress and to the Administrator a report on the Board's views on proposed research programs as described in the President's budget for research, development and demonstration activities of the EPA.
(b) Requires the SAB to select and conduct evaluations of planned research,
development, and demonstration activities of the EPA. The areas of selection should be selected by the SAB in consultation with the Administrator of the Office of Research and Development, other Agency programs, and appropriate committees of Congress. A report of these evaluations should be submitted to the Administrator and such committees. The Administrator shall respond to the report within 60 days after it has been submitted.
(c) Requires the SAB to annually review research activities of the EPA and include results in the report required by subsection (a).
(d) Requires the Administrator to submit to Congress any report required to be submitted to the Administrator by the SAB. Such submissions shall be made no later than 60 days after the Administrator receives the report.

Committee Views

SECTION 503—AUTHORIZATION OF APPROPRIATIONS

The Committee supports an overall funding level of $487,162,600 for the Science and Technology Appropriations account. This level is in keeping with the levels necessary to balance the budget by the year 2002.

The Committee supports funding for the Office of Research and Development's scientific research. The reductions taken from the Office of Research and Development's FY 1997 request, as outlined in the chart above, fall in large part on the office's infrastructure. The Committee feels that the Office of Research and Development should be able to maintain the same ratio of research funding to infrastructure funding as it maintained in FY 1995. The Committee further supports funding research related to EPA's regulatory mission, and will not support research in areas EPA does not regulate now nor is likely to regulate in the future.

Air-Related Research

The Committee has increased criteria air pollution research funding by $14,218,000 from the requested level. This increase is intended to allow EPA to improve the level of science used to support its promulgation of regulations under the Clean Air Act Amendments of 1990. Specifically, the Committee notes that significant gaps appear to exist in the science behind implementation of the current national air quality standard for ozone and particulate matter (PM 10).

For particulate matter, the Committee notes that EPA is facing a 1997 deadline for promulgation of an ambient standard. The Committee is concerned that the current level of scientific knowledge on PM10 is insufficient to support a standard which is likely to have significant costs to the economy. The Committee encourages the Office of Research and Development to increase its research efforts in this area.

The Committee does not support EPA's research on indoor air. The Occupational Safety and Health Administration regulates indoor air in the workplace; and its research arm, the National Institute of Occupational Safety and Health of the Center for Disease Control, should be the lead agency for conducting research on indoor air.

Global Change Research

The Committee finds that the Office of Research and Development's Global Climate Change research is of low priority. Further, the research does not support the Office of Research and Development's primary mission which is to provide the scientific underpinning for EPA regulation. The Committee recommends terminating the Office of Research and Development's Global Climate Change Program, but not its research on stratospheric ozone.

Multi-Media Research

The Committee is concerned with the continuation of the FY1996 shift from category-specific research funding to multi-media. Although most research topics incorporate some cross-media components, too much of the Office of Research and Development's funding is housed in the multi-media account.

The Committee continues to recommend termination of the Environmental Technology Initiative (ETI). ETI is an ill-defined Admin-

istration initiative. The program appears to be either an attempt at environmental industrial policy or an over-priced effort to reform EPA's regulatory policies to eliminate barriers to green technologies. While the Committee supports the latter in concept, it notes that such an effort should not require tens of millions of dollars. Further, many of the current barriers to improve environmental technologies are legislative, and will have to be removed by Congress.

As for industrial policy, the Committee rejects the premise that the Office of Research and Development should expend its scarce research funding on subsidizing the commercialization of environmental technology.

The Committee supports funding environmental fellowships at $5,000,000 for FY 1997. The fellowships must support research directly related to the Office of Research and Development's mission. The Committee believes that environmental education, while important, is not the Office of Research and Development's mission. The Committee's support of continued funding for the Office of Research and Development's fellowship program is conditioned on the Office of Research and Development demonstrating a direct link between the Office of Research and Development research and research conducted through the fellowship program.

Limitations on Appropriations

The Committee does not support funding the Environmental Technology Initiative; Office of Research and Development activities associated with the Climate Change Action Plan; indoor air research; or Congressional earmarks including the following: North Dakota Center for Air Toxic Metals Research; drinking water research conducted by the American Water Works Association Research Foundation; the Water Environmental Research Foundation; the National Urban Air Toxics Research Center; the Gulf Coast Hazardous Substances Research Center; urban waste management research at the University of New Orleans; the Resources and Agricultural Policy Systems Program at Iowa State University; and the Oil Spill Remediation Research Center.

SECTION 504—SCIENTIFIC RESEARCH REVIEW

The Committee is concerned about the quality of research used by EPA in its regulatory rulemaking. The Committee supports efforts to ensure the quality of research within the Agency by centralizing the responsibility for the quality of all Agency research with the Assistant Administrator for the Office of Research and Development.

SECTION 505—GRADUATE STUDENT FELLOWSHIPS

The Committee believes that any fellowship award by the Office of Research and Development should be used only to support research that would further the missions of the Office of Research and Development.

SECTION 506—SCIENCE ADVISORY REVIEW

The Committee is concerned that the traditional Science Advisory Board review of EPA's budget request has not been conducted for the past two fiscal years. Section 506 requires the SAB to conduct and submit such a report annually.

REPORTS TO CONGRESS

The Assistant Administrator shall transmit annually to the Administrator and to the Committee on Science of the House of Representatives and the Committee on Environment and Public Works of the Senate a report detailing:

1) all Agency research the Assistant Administrator finds of insufficient quality; and

2) all Agency research the Assistant Administrator finds duplicates other Agency research.

The Science Advisory Board is required to submit to Congress and to the Administrator a report on the Board's views on proposed research programs as described in the President's budget for research, development and demonstration activities of the EPA. Further, the SAB is required to select and conduct evaluations of planned research development and demonstration activities of the EPA. The areas of selection should be selected by the SAB in consultation with the Administrator of the Office of Research and Development, other Agency programs, and appropriate committees of Congress. A report of these evaluations should be submitted to the Administrator and such committees. The Administrator shall respond to the report within 60 days after it has been submitted. The SAB also must submit an annual review of research activities of the EPA and include results in the report. The Administrator must also submit to Congress any report required to be submitted to the Administrator by the SAB. Such submissions shall be made no later than 60 days after the Administrator receives the report.

Title VI—National Institute of Standards and Technology

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
SCIENTIFIC AND TECHNICAL RESEARCH SERVICES & CONSTRUCTION
FISCAL YEAR 1997 PROPOSED AUTHORIZATION

	FY96 Estimate*	FY97 Request	FY97 Proposed
Electronics & electrical engineering		$38,114,000	$38,407,000 [1]
Manufacturing engineering		18,747,000	18,747,000
Chemical science & technology		31,939,000	33,939,000 [2]
Physics		28,048,000	28,048,000
Materials science & engineering		51,026,000	54,589,000 [3]
Building & fire research		13,085,000	13,085,000
Computer science & applied mathematics		43,076,000	43,076,000
Technology assistance		14,950,000	18,950,000 [4]
National Quality Program		2,987,000	2,987,000
Research support activities		28,772,000	28,772,000
STRS Appropriations	**259,000,000***	**270,744,000**	**280,600,000**
Construction of Research Facilities	**60,000,000***	**105,240,000**	**105,240,000**

*As funded in the FY96 Commerce Appropriations bill, which was vetoed by the President

[1] Exceeds the President's request by authorizing unfunded FY96 requested increase to develop and deliver new measurement tools and services to the semiconductor device, equipment, and materials industries, as called for in the National Technology Roadmap for Semiconductors.

[2] Exceeds the President's request by authorizing unfunded FY96 requested increase to develop biotechnology measurement and data tools needed by United States industry to accelerate commercialization of bioproducts through improved product design, process optimization, and quality assurance.

[3] Exceeds the President's request by authorizing unfunded FY96 requested increase to permit work with industry to accelerate the commercialization of advanced materials through projects that emphasize the measurement science/characterization elements of synthesis and processing and the process integration of relevant materials.

[4] Exceeds the President's request by authorizing unfunded FY96 requested increase to provide a new generation of physical standards, measurements, test methods, and reference data needed by emerging instrumentation industries, focusing on metrology. This increase would also provide funds to implement the requirements of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) to make NIST the lead governmental coordinating agency on standards and conformity assessment.

Section 601. Authorization of Appropriations for fiscal year 1997

Sectional Analysis

Subsection 1 provides a Fiscal Year 1997 authorization of funds for the National Institute of Standards and Technology Scientific and Technical Research and Services (STRS). It apportions the authorized total among the following 10 accounts: (1) Electronics and Electrical Engineering; (2) Manufacturing Engineering; (3) Chemical Science and Technology; (4) Physics; (5) Material Science and Engineering; (6) Building and Fire Research; (7) Computer Science and Applied Mathematics; (8) Technical Assistance; (9) Research Support; and (10) the Malcolm Baldrige National Quality Program.

Subsection 2 authorizes $105.240 million for the NIST Research Facilities Construction Program.

Committee Views

The Committee recommends an authorization level of $280.6 million for Fiscal Year 1997, an increase of $21.6 million—or 8 percent—from the Fiscal Year 1996 estimate of $259.0 million for the National Institute of Standards and Technology's Scientific and Technical Research and Services. The President requested $270.744 million for Fiscal Year 1997, an increase of $11.744 million—or 5 percent—over the Fiscal Year 1996 estimate of $259.0 million. The House-passed Concurrent Resolution on the Budget for Fiscal Year 1996 (H.Con.Res. 67) recommended $280.6 million in Fiscal Year 1997 funding for the NIST STRS account.

For the National Institute of Standards and Technology's Construction of Research Facilities (CRF), the President requested $105.240 million for Fiscal Year 1997, an increase of $45.24 million—or 75 percent—over the Fiscal Year 1996 estimate of $60.0 million. The CRF account, however, received a rescission of $75.0 million in the Fiscal Year 1996 Omnibus Appropriations Conference Report (Public Law 104-1xx).

The Committee recommends an authorization level of $105.240 million for Fiscal Year 1997, which fully meets the President's request. The House-passed Concurrent Resolution on the Budget for Fiscal Year 1996 (H.Con.Res. 67) recommended $69.0 million for the NIST Construction of Research Facilities.

Included within the STRS account, the Committee approved an authorization of $2.987 million for the Malcolm Baldrige National Quality Program, originally provided for in Section 17 of the Stevenson-Wydler Innovation Act of 1980 [15 U.S.C. 3711(a)].

Overall, the President's requested authorizations were fully adopted in all ten program areas within STRS. The STRS account funds principally the core, "mission-related" activities of the NIST laboratories. The Committee has indicated strong support in the past for these activities and continues to do so in its Fiscal Year 1997 proposed authorization.

The Committee, however, believes very strongly that the work done at the NIST laboratories must be funded at levels which will permit the NIST laboratories to continue performing their critical national mission. Since NIST is integral to United States competitiveness in the global marketplace through its interaction with industry and by development and application of technology, measurements, and standards, the Committee has not only matched, but exceeded, the President's funding request for the STRS account.

The $9.856 million authorized above the President's request would fund certain projects which the Committee authorized, but which Congress was not able to fully fund in fiscal year 1996.

The Committee understands that while there may be some overlap in certain accounts within the President's Fiscal Year 1997 request and the unfunded Fiscal Year 1996 requested increases, it is important, nevertheless, to authorize, to the extent practicable, these important activities which represent the core NIST mission. These increases above the President's request fall in four STRS accounts. They are: Electronics and Electrical Engineering; Chemical Science and Technology; Materials Science and Engineering; and Technology Assistance.

The Electronics and Electrical Engineering account in the bill exceeds the President's request by authorizing an additional $293,000 of an unfunded Fiscal Year 1996 requested increase to develop and deliver new measurement tools and services to the semiconductor device, equipment, and materials industries, as called for in the National Technology Roadmap for Semiconductors.

The Chemical Science and Technology account exceeds the President's request by authorizing an additional $2.0 million of an unfunded Fiscal Year 1996 requested increase to develop biotechnology measurement and data tools needed by United States industry to accelerate commercialization of bioproducts through improved product design, process optimization, and quality assurance.

The Materials Science and Engineering account exceeds the President's request by authorizing an additional $3.563 million of an unfunded Fiscal Year 1996 requested increase to permit work with industry to accelerate the commercialization of advanced materials through projects that emphasize the measurement science/characterization elements of synthesis and processing, and the process integration of relevant materials.

The Technology Assistance account exceeds the President's request by authorizing an additional $4.0 million of an unfunded Fiscal Year 1996 requested increase to provide a new generation of physical standards, measurements, test methods, and reference data needed by emerging instrumentation industries, focusing on metrology. This increase would also provide funds to implement the requirements of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) to make NIST the lead governmental coordinating agency on standards and conformity assessment.

Section 12 of Public Law 104-113 gives NIST new responsibilities to develop a strategic plan to evaluate state and local standard development and conformity assessment activities, and to take the lead in developing consensus at the federal, state and local levels, in the interest of eliminating unnecessary duplication and burden on industry. The Committee affirms that our ability to adapt the standards development process to the needs of a rapidly changing marketplace will play an important role in maintaining our nation's future competitiveness.

The collective impact of the changes made by P.L. 104-113 is to grant NIST a clear statutory mandate to act as the lead agency for ensuring federal use of standards developed by private consensus standards organizations to meet regulatory and procurement needs,

and to guide the states toward a national, rationalized system of conformity assessment and certification. NIST is required to report to Congress on its progress and the feasibility of such actions by June 7, 1996.

The Committee also supports the need for renovation and modernization of NIST facilities. The Committee understands the importance for state-of-the-art measurement and calibration laboratories to modernize NIST facilities; otherwise, NIST can not adequately fulfill its mission into the future.

NIST's current specialized research buildings are lacking in environmental controls needed for world-class measurement research in support of United States industry, and suffer from a variety of safety and systems capacity problems. The Committee is aware of the independent study conducted for NIST in Fiscal Year 1991 which found that the overwhelming majority of NIST's facilities will fail to meet program needs within this decade unless steps are taken now to design, construct, and renovate the needed facilities.

The authorized Fiscal Year 1997 funding of $105.240 million will permit NIST to address the technical obsolescence of its facilities. The authorized funding keeps NIST on its timetable for occupancy of the new Advanced Chemical Sciences Laboratory (ACSL) by the summer of 1998 and the commencement of the first phase of construction for the Advanced Metrology Laboratory (AML).

Title VII—Federal Aviation Administration

FEDERAL AVIATION ADMINISTRATION RESEARCH, ENGINEERING, AND DEVELOPMENT (RE&D) FY97 PROPOSED AUTHORIZATION

[In millions of dollars]

	FY96 Appropriated	FY97 PB Request	FY97 Proposed Authorization
Sys Dev/Infrastructure	10.000	16.822	10.000
Capacity/ATM technology	37.200	40.570	39.911
Comm/Nav/Surveillance	23.000	20.371	20.371
Weather	6.493	6.411	6.411
Airport Technology	6.000	6.000	6.000
Air Safety Technology	37.978	38.999	37.978
System Security	36.045	36.045	36.045
Human Factors/Aviation Medicine	23.682	23.682	23.682
Environment/Energy	3.800	3.800	3.800
Innovative/Cooperative Research	1.500	3.000	1.500
	185.698	**195.700**	**185.698**

Sectional Analysis

Section 701. Short Title

Cites this title as the "FAA Research, Engineering, and Development Management Reform Act of 1996."

Section 702. Findings

Sets forth Committee findings regarding the FAA's chronic delays in fielding new products and services, including long-standing internal management, organizational and cultural impediments to improving the acquisition processes.

Section 703. Definitions

Defines acquisition management terms used in Section 704 of Title VII.

Section 704. Management Principles

Guiding principles which serve as a legislative foundation for the FAA to transform broadly stated requirements into affordable, operationally effective and suitable products and services to meet the needs of users of the National Airspace System. These include full life-cycle involvement by the FAA's acquisition and operational workforce; early and continuous involvement of operators and users, advisory committees, and industry vendors and experts in establishing and stabilizing sound, realistic operational requirements; assignment of key acquisition officials based on demonstrated leadership, professionalism, and proven acquisition management competencies consistent with their positional responsibility and authority, among others.

Section 705. Document of April 1, 1996

This section implements the FAA's new acquisition management system, which , according to the FAA, is intended to address many of the problem areas identified in the past reviews of FAA performance.

Section 706. Authorization of Appropriations

Authorizes appropriations for FY1997 of $185.698 million for Federal Aviation Administration RE&D activities and such sums a may be necessary for research, engineering, development activities described in the President's fiscal year budget request to the Congress under the category *"Engineering, Development, Test, and Evaluation"* of the Facilities and Equipment account.

Section 707. Research Priorities

Requires the FAA administrator to consider the advice and recommendations of the FAA RE&D advisory committee in establishing research and development priorities.

Section 708. Budget designation for FAA Research and Development Activities

Requires that future FAA budgets include in a single budget category all research and development activities that would be classified as basic research, applied research, or developmental under the guidelines established by OMB in Budget Circular A-11.

Section 709. Research Advisory Committee

Requires the FAA RE&D advisory committee to annually review the FAA's research and development funding allocations among major activity areas and then report to the FAA administrator on whether such allocations will meet the needs and objectives for the FAA, as defined by the advisory committee.

Section 710. National Aviation Research Plan

Revises the requirements for the National Aviation Research Plan by changing the period covered by the plan from 15 to 5 years, by streamlining the categories of information to be included in the plan, and by requiring the plan to document FAA's response to the recommendations of the RE&D advisory committee.

Committee Views

Over the past decade, FAA programs to modernize the National Airspace System (NAS) have experienced significant problems in terms of costs, schedules, and performance. During three previous

hearings, the Committee received testimony from the FAA, OTA, GAO, NASA, NOAA, NTSB, advisory groups, trade associations, and contractors about FAA's legendary problems in fielding new products and services. Although the FAA and others have blamed these perennial problems on procurement rules, government regulations, and personnel hiring and firing practices, significant evidence points to more fundamental organizational, management and cultural issues within the FAA itself.

Management Reforms

Based on extensive investigation and witness testimony, the Committee finds the following factors significantly contributing to FAA's chronic delays in fielding new systems:

- **Long-standing, internal management, organizational, and cultural impediments to improving its acquisition processes.** In the past, a lack of strong, stable, and enlightened leadership—due in part to frequent turnover of FAA administrators—has done little to correct these legendary, dysfunctional problems.
- **A "stove pipe" organization comprised of bureaucratic, functional fiefdoms.** Continuous infighting and lack of coordination between the technology developers and operational sections have become status quo. Consequently, research and development programs have been mostly technology-driven and technology decisions have not always meshed with operational requirements. Systems have reached the advanced stages of development only to be found unusable or not what was needed. Conversely, totally unrealistic and unwarranted 'operational requirements' have led to cost overruns, schedule delays, and program termination.
- **A profound lack of acquisition management competencies by research and development official.** Significant weaknesses exist in program, financial, contract, and production management; systems engineering; human factors; developmental and operational test and evaluation; and logistics. Non-existent or inadequate formal education, training, and certification of FAA managers has contributed to these shortcomings.
- **Incoherent, non-holistic acquisition strategies. Major shortcomings in: long-range, top-down, forward-looking mission needs analysis; establishing and validating sound, realistic operational requirements; early identification of cost-drivers and major tradeoffs through rigorous cost-benefit analysis; and consideration of non-material, non-developmental items, commercial-off-the-items, evolutionary acquisitions, or pre-planned product improvement.** These and other problems have led to unbalanced designs and unstable cost, schedule, and performance baselines.
- **Lack of contemporary management techniques and industry "best practices".** Lack of awareness, and employment of advanced management techniques such as life-cycle analysis, "design-to-cost", technical performance measurements, and cost/schedule control systems has led to risk management more

akin to "fire fighting" than "fire prevention." Poor contractor performance has gone undetected until billions of dollars have been expended and projects were in dire straits.

Based on these findings and the FAA's previous track record in fielding new systems, the Committee concluded that major improvements in modernizing the nation's air traffic system will require fundamental changes in FAA's acquisition management.

The 104th Congress took unprecedented steps to help the FAA put its procurement and personnel houses in order. The FY96 Department of Transportation Appropriations Act (PL104-50) directed the FAA to develop and implement new acquisition and personnel management systems, and specifically excluded the agency from eight major provisions of acquisition law and essentially all government employment practices. On April 1, 1996, the FAA began phasing in its new acquisition management system which is intended to address many of the problems currently plaguing FAA's acquisition processes.

Unfortunately, in the past, self-governing FAA research and development programs have not been particularly efficient and effective. The Committee concludes the FAA needs a disciplined acquisition management system based upon strong leadership and the following guiding concepts:

- Full integration of three decision-support processes: establishing and validating requirements; full life-cycle acquisition management; and planning, programming, and budgeting.
- Full *life-cycle* involvement by the FAA's acquisition and operational workforce.
- Early and continuous involvement of operators and users, advisory committees, and industry vendors and experts in establishing and stabilizing sound, realistic operational requirements.
- Assignment of key acquisition officials based on demonstrated leadership, professionalism, and proven acquisition management competencies consistent with their positional responsibility and authority.
- Full life-cycle, event-driven acquisition strategies which:
  - —explicitly link major program decisions and contractual commitments to demonstrated accomplishments in RE&D;
  - —balance system design requirements and constraints based on cost-benefit sensitivity analysis;
  - —consider maximum practicable use of non-material, non-developmental, or commercial solutions prior to embarking on protracted, FAA-unique RE&D; and
  - —consider evolutionary acquisition and pre-planned product improvement to mitigate risks and expeditiously field products and services.
- Use of contemporary management techniques and industry best practices to determine: where the program is versus where it should be; where the program is going and what the plans are to get there; what the risks are and how they will be mitigated, and whether the proposed approach is affordable.

While the Committee finds the FAA's new acquisition management system is generally consistent with these concepts, implemen-

tation has been a problem in the past. These concepts, formalized as "Management Principles" in Section 705, are not intended to micro-manage FAA research and develop activities. They do, however, provide the legislative foundation and broad guidance for transforming broadly stated requirements into affordable, operationally effective, and suitable products and services to meet the needs of users of the National Airspace System' principles the FAA could have sorely used in the past.

Consolidation of FAA R&D Activities in a Single Budget Account

FAA's R&D activities are funded from two major budget categories: the Research, Engineering, and Development (RE&D) account and *"Engineering, Development, Test and Evaluation"* of the Facilities and Equipment (F&E) account. Projects funded under *"Engineering, Development, Test, and Evaluation"* of the F&E account fall within the category of research and development (R&D) as defined by the Office of Management and Budget (OMB). OMB Circular A-11, Budget Formulation / Submission Processes, which provides guidelines to the federal agencies used in reporting data on R&D budgets, specifies that R&D budgets should be divided into the categories of basic research, applied research, and development, where development is defined as "systematic use of the knowledge gained from research for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes."

As FAA indicated in testimony to the Subcommittee on Technology on April 18, 1996, projects included in *"Engineering, Development, Test, and Evaluation"* of the F&E account are principally associated with full scale development of new technologies, which in accordance with the OMB guidelines fall into the budget category of R&D.

The Committee believes that maintaining separate R&D accounts makes it considerably more difficult for the Congress to track overall FAA R&D investment and to assess the priorities among areas of R&D. The current arrangement is confusing and lacks consistency. For example, the Committee notes the finding of the 1994 report of the Office of Technology Assessment, "Federal Research and Technology for Aviation," that aviation weather research, involving algorithm development for numerical weather prediction and development of sensors and software for detection of weather hazards, were funded under *"Engineering, Development, Test, and Evaluation"* of the F&E account, rather than in the RE&D account, where more fundamental research is normally found.

The Committee expects future budget submissions from the FAA to include in a single account, which may include whatever internal subdivisions the agency determines to be appropriate, all activities that would be classified as R&D under the guidelines of OMB Circular A-11. The Committee expects FAA to develop guidelines appropriate for delineating the differences in characteristics among activities supported in any subdivisions of the R&D account which FAA may establish.

FAA Research Advisory Committee

The FAA research advisory committee, which was established by statute on the initiation of this Committee, is composed of aviation experts from industry, other R&D agencies, and academia. The Committee intended the advisory committee to provide advice to FAA on the goals, relevance and quality of the R&D program, but it is not evident that the advisory committee has had much influence in the priority setting process for FAA's R&D activities.

The Committee has attempted to strengthen the influence of the FAA research advisory committee, first, by requiring it to review and provide recommendations to FAA on the agency's R&D budget allocations, and then, by requiring FAA to consider those recommendations in establishing the priorities in its annual R&D budget request. In addition, FAA must now report to Congress on its response to the advisory committee's recommendations as part of the annual National Aviation Research Plan.

National Aviation Research Plan

The Committee is disappointed that the National Aviation Research Plan has not been a useful document for informing Congress of the goals and priorities for the aviation research program of the federal government. The Committee recognizes that a significant part of aviation R&D is carried out by agencies other than FAA, which is why the Plan required descriptions of coordinated and complimentary activities carried out by other agencies. The Committee views the purpose of the Plan as providing a single concise statement of the goals and near term objectives of the overall federal aviation R&D program, as well as a summary of FAA*s R&D activities, plans, and accomplishments.

The Committee reminds FAA that the statute which establishes the plan, 49 U.S.C. 44501, states that "the plan shall be submitted not later than the date of submission of the President's budget to Congress." The Committee is displeased that FAA has not met this requirement for the past two years at least. The Committee regrets that the current plan is past due and was not available for review by the Committee in preparing the authorization language in this bill. The Committee expects the Plan to be available in time to be considered during the usual budget authorization process. The very late arrival of the Plan has rendered it nearly useless for this purpose.

In the interests of making the Plan a more useful document, the Committee has modified the period it covers and has streamlined the contents. The Committee intends that FAA place the emphasis in the Plan on describing the overall national aviation R&D goals and priorities; the FAA's resource allocations, including allocations among long-term research, near-term research, and development, for the current and succeeding four years; and the connection between FAA's R&D activities and the related activities of other R&D agencies. The Committee does not expect the Plan to consist of a compilation of lengthy descriptions of every project currently funded.

The Committee emphasizes that FAA is now required to highlight in the Plan the R&D activities that address specific recommendations of the FAA research advisory committee, as well as explain the reasons for not accepting the recommendations of the advisory committee.

Authorization of Appropriations

For FY97, the President requested $195.7 million for FAA RE&D programs. Acquisition reform, based upon these guiding principles, offers the promise of increased efficiencies and less waste. Accordingly, total FAA RE&D budget authority should not be increased above the FY96 appropriation of $185.698 million until significant improvements in FAA's acquisition management are apparent and efficiencies can be more readily assessed. However, *"Capacity/Air Traffic Management Technology"* was adjusted upward slightly from the FY96 appropriation. For FY97, the President's budget requested $2.629 million less for *"Communications/Navigation/Surveillance"* and $0.082 million less for *"Weather"* than was appropriated for FY96. These two amounts, totaling $2.711, were used to increase FY 97 budget authority for *"Capacity/Air Traffic Management"* activity from the FY96 appropriated amount of $37,200 million to $39.912 million. This budget category, which funds research and development for the "free flight" concept, was cited as the top priority by the FAA's RE&D advisory committee.

Title VIII—National Earthquake Hazards Reduction Program

NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM FY 1997 BUDGET REQUEST SUMMARY

[In millions of dollars]

ACCOUNT TITLE	FY 1996 Estimate	FY 1997 Request	FY 1997 Auth.
Federal Emergency Management Agency	19.93	18.825	18.825
United States Geological Survey	46.13	46.13	46.13
National Science Foundation	27.1	28.4	28.4
National Institute of Standards and Technology	1.932	1.932	1.932
TOTAL	95.092	95.287	95.287

Sectional Analysis

Section 801, Authorization of Appropriations

Authorizes a total of $95,285,000 in FY 1997, the Administration's request, for the programs and activities of the National Earthquake Hazards Reduction Act of 1977 to be allocated to the Federal Emergency Management Agency (FEMA), the United States Geological Survey (USGS), the National Science Foundation (NSF), and the National Institutes of Science and Technology (NIST).

NSF and NIST are authorized $28,400,000 and $1,932,000, respectively, from sums already authorized in previous titles.

Title VIII authorizes $18,825,000 for FEMA's NEHRP activities and $46,130,000 for USGS's NEHRP activities.

Committee Views

The Committee acknowledges that the National Earthquake Hazards Reduction Program is, for the most part, a very effective research program which can be credited with increasing our knowledge of seismic risk, enhancing our understanding of how structures fare during earthquakes, and contributing to the knowledge that enabled the design and construction of new buildings that are more likely to withstand the pressures of an earthquake. In addition, the program has helped to educate and prepare communities that are in earthquake prone areas.

The potential for a devastating earthquake hitting a major metropolitan area of the United States and inflicting catastrophic losses to life and property is still very real. Much more can be learned through NEHRP research to help us understand earthquakes and their effects. These realities necessitate that we continue to fund this earthquake research program in an effort to further reduce the inherent dangers as much as possible.

Title IX—Miscellaneous:

Section 901. Prohibition of Lobbying Activities

Sectional Analysis

Prohibits the use of funds authorized by this Act for any activity whose purpose is to influence legislation pending before the Congress. Does not prevent employees of the departments and agencies from communicating with Members of Congress to conduct public business.

Committee View

The Committee is committed to ensuring that awards for research and education are used solely for those purposes. Funds should not be used for any purpose, other than that specified in the award. The Committee, however, does not exclude appropriate communications between the executive branch and the Congress.

Section 902. Limitation on Appropriations

Sectional Analysis

Disallows authorization of funds which are not specifically authorized to be appropriated by this Act for FY 1997, or by an Act of Congress in succeeding fiscal years.

Committee View

This section emphasizes the Committee's position that the only funds authorized to be appropriated for the agencies covered under this legislation are made available through this Act. It is the Committee's intent that annual authorizations are required for appropriations to be authorized. Organic act authority is enabling of agency missions and programmatic activity, but not sufficient to authorize actual funding.

Section 903. Eligibility for Awards

Sectional Analysis

Requires the head of each federal agency for which funds are authorized under this Act to exclude, for a period of five years, any person who received funds for a project not subject to a competitive, merit-based review process after fiscal year 1996. This section is not applicable to awards to persons who are members of a class specified by law for which assistance is awarded according to formula provided by law.

Committee View

The Committee has a long-standing position that awards should be based on a competitive merit-based process. Merit review allow taxpayers' dollars to be spent in the most cost-effective manner. Although federal agencies may have concerns about specific award programs, the Committee believes that proper planning, clearly stated missions, and structuring programs to meet Committee intent is possible.

Additional Committee View Regarding Further Authorizations

It is the intent of the Committee that nothing in this act shall preclude further authorization of appropriations for the civilian science activities of the federal government for fiscal year 1997; provided that authorization allocations contained in the concurrent resolution on the budget for fiscal year 1997 and approved by Congress, allow for such further authorizations.

VII. Committee Cost Estimates

Clause 2(1)(3)(B) of rule XI of the House of Representatives requires each committee report that accompanies a measure providing new budget authority, new spending authority, or new credit authority or changing revenue or tax expenditure to contain a cost estimate, as required by section 308(a)(1) of the Congressional Budget Act of 1974, as amended, and, when practicable with respect to estimates of new budget authority, a comparison of the total estimated funding relevant program (or programs) to the appropriate levels under current law.

Clause 7(a) of rule XIII requires each committee report accompanying each bill or joint resolution of a public character to contain the committee's cost estimates, which include, where practicable, a comparison of the total estimated funding level for the relevant program (or programs) with the appropriate levels under current law.

The Committee adopts as its own the cost estimate prepared by the Director of the Congressional Budget Office, pursuant to section 403 of the Congressional Budget Act of 1974.

VIII. Congressional Budget Office Cost Estimates

[Text of the CBO estimate follows:]

CONGRESSIONAL BUDGET OFFICE
U.S. CONGRESS
WASHINGTON, D.C. 20515

June E. O'Neill
Director

April 30, 1996

Honorable Robert S. Walker
Chairman
Committee on Science
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 3322, the Omnibus Civilian Science Authorization Act of 1996.

Enactment of H.R. 3322 would affect direct spending and receipts. Therefore, pay-as-you-go procedures would apply to the bill.

If you wish further details on this estimate, we will be pleased to provide them.

Sincerely,

James L. Blum
for June E. O'Neill

Enclosure

cc: Honorable George E. Brown, Jr.
Ranking Minority Member

CONGRESSIONAL BUDGET OFFICE

COST ESTIMATE

April 30, 1996

1. BILL NUMBER: H.R. 3322

2. BILL TITLE: Omnibus Civilian Science Authorization Act of 1996

3. BILL STATUS:

As ordered reported by the House Committee on Science on April 24, 1996.

4. BILL PURPOSE:

H.R. 3322 would authorize appropriations for 1997 for science-related programs at eleven federal agencies, and would establish general policies regarding grant eligibility, lobbying by grant recipients, and appropriations for activities not authorized by this bill.

Title I would authorize appropriations of nearly $3.3 billion for the National Science Foundation (NSF) and revise certain policies regarding NSF's grants and administration. One provision would modify the eligibility criteria for receiving NSF funds by requiring institutions of higher education to allow students who are members of the National Guard or reserves of the Armed Forces to recover tuition or fees if called to active duty.

Title II would authorize appropriations of $13.5 billion for the National Aeronautics and Space Administration (NASA), $5.8 million for the Office of Commercial Space Transportation (OCST) in the Department of Transportation (DOT), and $500,000 for the Office of Space Commerce at the Department of Commerce. This title also would direct NASA to privatize its microgravity parabolic flight operations under certain conditions, take steps toward privatizing the space shuttle operations by the year 2012, create a position of Procurement Ombudsman, follow various administrative procedures, and prepare several reports for Congressional review. It also would require OCST to issue regulations regarding licensing, insuring, and indemnifying commercial launch vehicles and reentry vehicles.

Title III would authorize appropriations of approximately $28 million to carry out activities under the Federal Fire Prevention and Control Act of 1974. The bill would require the Fire Administration--the agency tasked with implementing that act--to issue two reports to the Congress and would allow updated fire safety standards to be employed under the 1974 act.

Title IV would authorize appropriations for certain programs of the National Oceanic and Atmospheric Administration (NOAA) and would set an authorization limit of about $1.8 billion on the total appropriation for 1997 for NOAA operations, research, and facilities. However, H.R. 3322 would authorize appropriations for only a subset of those activities and other NOAA programs. Specifically, the bill would authorize $1.4 billion for NOAA activities in 1997, including those conducted by the National Weather Service, the National Ocean Service, the Office of Oceanic and Atmospheric Research, and the National Environmental Satellite Data and Information Service. The bill also would authorize additional amounts for 1998 and 1999 for part of NOAA's atmospheric, weather, and satellite programs. H.R. 3322 also would terminate certain programs and establish a civil penalty for tampering with NOAA data buoys.

Title V would authorize the appropriation of $490 million for science and technology activities within the Environmental Protection Agency (EPA) for 1997. In addition, the bill would specify that no funding is authorized for the Environmental Technology Initiative, the Climate Change Action Plan, indoor air research, and several earmarked grants and cooperative research agreements with specialized research centers around the country.

Title VI would authorize appropriations of $281 million for various scientific and technical research programs within the National Institute of Standards and Technology (NIST) at the Department of Commerce. The bill also would authorize appropriations of $105 million for the construction of research facilities at NIST.

Title VII would reauthorize the Federal Aviation Administration's (FAA's) research, engineering, and development appropriation for 1997, and would authorize funding for certain other research, engineering, and development activities in FAA's facilities and equipment account. In addition, this legislation would change the scope of activities of the Research Advisory Committee and would revise the National Aviation Research Plan to include research and development activities.

Finally, Title VIII would authorize appropriations totaling $65 million for research on earthquake hazard reduction funded by the Federal Emergency Management Administration (FEMA) and the U.S. Geological Survey (USGS). In addition, Title VIII would earmark some of the funds authorized to be appropriated to the NSF and NIST for such activities.

ESTIMATED COST TO THE FEDERAL GOVERNMENT:

As shown in the following table, H.R. 3322 would authorize appropriations totaling $19.3 billion for 1997. Enacting this bill would affect direct spending and revenues because of provisions in Title IV related to NOAA. Other provisions in Title II could affect direct spending and revenues, but CBO estimates that those effects would not be significant over the 1997-2002 period.

TABLE 1. Estimated Cost of H.R. 3322 (By fiscal year, in millions of dollars)

	1997	1998	1999	2000	2001	2002
SPENDING SUBJECT TO APPROPRIATIONS ACTION						
Estimated Authorization Level	19,330	90	90	--	--	--
Estimated Outlays	10,306	6,474	2,092	447	171	19
CHANGES IN DIRECT SPENDING AND REVENUES						
Additional Direct Spending						
Estimated Budget Authority	2	--	--	--	--	--
Estimated Outlays	2	--	--	--	--	--
Estimated Revenues	a	a	a	a	a	a

a. Less than $500,000.

The costs of this bill fall within budget functions 050, 250, 300, 370, 400, and 450 .

6. BASIS OF ESTIMATE:

Spending Subject to Appropriations Action. This estimate assumes that the full amounts authorized will be appropriated by the beginning of each fiscal year and that outlays will occur at rates consistent with historical trends for each agency. Table 2 compares the amounts authorized by H.R. 3322 to the amounts enacted for the respective agencies for 1996.

TABLE 2. Authorization Levels in H.R. 3322 Compared to 1996 Appropriated Levels (By fiscal year, in millions of dollars)

	Actual	Authorizations		
	1996	1997	1998	1999
National Science Foundation	3,258	3,251	--	--
National Aeronautics and Space Administration	13,905	13,496	--	--
Office of Space Commerce	a	1	--	--
Office of Commercial Space Transportation	6	6	--	--
U.S. Fire Administration	29	28	--	--
National Oceanic and Atmospheric Administration[b]	1,554	1,406	90	90
Environmental Protection Agency[b]	525	490	--	--
National Institute of Standards and Technology[b]	235	386	--	--
FAA Research and Technology	206	203	--	--
FEMA, Earthquake Hazards Reduction	20	19	--	--
USGS, Earthquake Hazards Reduction	46	46	--	--
Total	19,784	19,330	90	90

a. Less than $500,000.
b. This bill only authorizes programs under the jurisdiction of the House Committee on Science.

The figures in both Tables 1 and 2 encompass only the NOAA programs specifically authorized by H.R. 3322. (Even though the bill contains an overall authorization ceiling on certain NOAA activities, it specifically authorizes funding for only a portion of those activities.) Based on information from FAA, CBO estimates the amount of funding associated with research and development for facilities and equipment in the President's budget request for 1997 is $17.2 million. Because the bill authorizes new spending consistent with that request, we have included $17.2 million in the FAA total for 1997 provided in Table 2.

We also assume that experiments supported by NASA that use private microgravity parabolic flight operators would be funded within the amounts authorized by H.R. 3322 for NASA operations. The amount and timing of appropriations for such costs would depend on the terms of the contractual arrangements and may differ from the amounts that would be budgeted for those activities under current law. CBO estimates that other provisions of the bill would have no significant effect on discretionary spending.

Direct Spending. CBO estimates that enacting H.R. 3322 would necessitate direct spending in 1997 for the costs of terminating certain NOAA programs. Some of the costs associated with program termination may be covered by existing funds, but other costs could not be funded out of appropriations authorized in this bill or by existing balances. Specifically, section 441 of the bill prohibits the appropriation of funds for several NOAA programs and requires certification of their termination no later than 60 days after enactment. CBO estimates that the cost of terminating at least one of the programs, the National Undersea Research Program (NURP), would exceed that program's existing unobligated balances. Hence, direct spending authority would be created to cover these costs.

Based on information provided by the Department of Commerce, CBO estimates that the incremental cost of terminating NURP--that is, the cost beyond amounts that could be paid using existing funds--is likely to total about $2 million. This estimate includes $1.2 million for removing the Aquarius underwater habitat from the Florida Keys National Marine Sanctuary. Failure to remove the submersible would likely be a violation of various environmental laws and regulations. Even in the absence of a clear statutory obligation to remove the structure, the government would be liable under these same laws for potential damages to individuals or the sanctuary. The cost of terminating all of the specified programs may be significantly higher. However, CBO estimates that most of these expenses could be paid from existing funds.

The EPA provision prohibiting the expenditure of appropriated funds for certain research projects and earmarked grants and cooperative agreements would not result in any direct spending because EPA has no financial liabilities for these activities beyond the end of 1996.

In addition, enacting this bill could result in offsetting receipts to the government from the sale of surplus property. If NASA finds privatization of microgravity parabolic flight operations to be cost-effective, it would reduce the agency's need for certain aircraft, which could lead to the sale of such facilities as surplus property by

the General Services Administration. CBO does not estimate receipts from such sales over the next six years, because officials at NASA have indicated that the aircraft would continue to be used by the agency for other programs.

Revenues. Title IV would establish a civil penalty of $10,000 for tampering with weather data buoys established, installed, or maintained by the National Data Buoy Center. Collections from imposing this penalty would be governmental receipts. CBO expects that any collections from this penalty would be less than $500,000 a year.

CBO estimates that any additional revenues from penalties resulting from violations of licenses of commercial space launch and reentry vehicles and operations would be insignificant. DOT has never collected a penalty for a violation of the licensing and related requirements of the commercial space transportation program.

7. PAY-AS-YOU-GO CONSIDERATIONS:

Section 252 of the Balanced Budget and Emergency Deficit Control Act of 1985 sets up pay-as-you-go procedures for legislation affecting direct spending or receipts through 1998. As shown in the following table, CBO estimates that enactment of H.R. 3322 would affect direct spending because of provisions in Title IV prohibiting appropriations to cover the termination cost of certain NOAA programs. This bill also would affect receipts because of provisions that would result in the collection of civil penalties for tampering with NOAA data buoys. Other provisions in Title II could affect direct spending and receipts, but we estimate that these changes would be zero or negligible.

(by fiscal year, in millions of dollars)

	1996	1997	1998
Change in Outlays	0	2	0
Change in Receipts	0	0	0

8. ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS:

The bill contains no intergovernmental mandates as defined by Public Law 104-4, but it would have other budget impacts on state and local governments that would not

result from mandates. The bill would create a new eligibility criterion for universities and colleges seeking NSF research funding, which could reduce the income of state educational institutions that apply for grants. The bill would also abolish several NOAA programs that provide research funds or grants to state governments and universities. Finally, the bill would authorize appropriations for fiscal year 1997 for federal programs that help state and local governments prepare for fires and earthquakes.

Additional Eligibility Criterion for NSF Funding. Section 127 would make eligibility for NSF funding contingent upon policies regarding students called to active military duty. In order to receive funding after fiscal year 1996, colleges and universities would have to provide that students called to active duty will be restored to their previous educational status without loss of tuition, fees, scholarships, or grant funding paid prior to the commencement of military duty. This provision could reduce income to some public institutions of higher education, but the loss of income is not expected to be significant.

According to information provided by the Department of Defense (DOD), about sixteen percent of the nation's roughly 1.1 million selected reservists are enrolled in classes at four-year colleges or graduate schools. During a U.S. military operation, several thousand of these student reservists could be called to active duty. For example, DOD estimates that roughly 8,000 reservists will be called to active duty during the U.S. operation in Bosnia, suggesting that about 1,300 students nationwide will have their education disrupted by involuntary military duty. The potential loss of income to NSF-funded schools would depend on a variety of factors, including whether the affected reservists request compensation, the extent and cost of their course work, and existing institutional policies.

NOAA Research Programs Abolished. Section 441 of the bill would abolish nine NOAA programs that provide research funds or grants to state governments and universities. The fiscal year 1996 funding for these programs is approximately $14 million. In addition, two programs jointly administered between the federal government and universities would be abolished.

Reauthorization of Fire and Earthquake Programs. The bill would authorize fiscal year 1997 appropriations for FEMA's fire prevention and control program and its earthquake hazards mitigation program. Both programs include financial assistance to state and local governments. FEMA estimates that it will disburse about $6 million

in fire prevention assistance and about $5 million in earthquake mitigation grants in fiscal year 1996.

9. ESTIMATED IMPACT ON THE PRIVATE SECTOR:

Section 251 of Title II would impose new mandates related to the license requirements for reentry sites and activities associated with commercial space activities. The direct mandate costs would be negligible, and thus would not exceed the threshold cost of $100 million during any of the first five years of enforcement.

10. PREVIOUS CBO ESTIMATE:

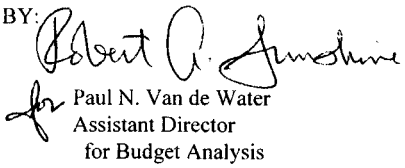
In 1995, CBO transmitted estimates for several bills ordered reported by the House Committee on Science that would have authorized appropriations for 1996, 1997, and later years for many of the same programs authorized by H.R. 3322. Estimates were provided for H.R. 1601, the International Space Station Authorization Act of 1995; H.R. 1814, the Environmental Research, Development, and Demonstration Act of 1995; H.R. 1815, the National Oceanic and Atmospheric Administration Authorization Act of 1995; H.R. 1851, the Fire Administration Authorization Act of 1995; H.R. 1852, the National Science Foundation Authorization Act of 1995; H.R. 1870, the American Technology Advancement Act of 1995; and H.R. 2043, the National Aeronautics and Space Administration Authorization Act, Fiscal Year 1996. The differences between those estimates and the estimate for H.R. 3322 reflect differences in the bills. In particular, most of the prior bill estimates include authorizations of appropriations for fiscal year 1996, while H.R. 3322 would authorize funding primarily for fiscal year 1997.

11. ESTIMATE PREPARED BY:

Federal Cost Estimate: Gary Brown, Kim Cawley, Clare Doherty, Rachel Forward, Kathleen Gramp, Rachel Robertson (226-2860); and Stephanie Weiner (226-2720).

State and Local Government Impact: Pepper Santalucia (225-3220).
Private Sector Impact: Jean Wooster (226-2940).

12. ESTIMATE APPROVED BY:



for Paul N. Van de Water
Assistant Director
for Budget Analysis

IX. Effects of Legislation on Inflation

In accordance with Rule XI, Clause 2(1)(4), of the Rules of the House of Representatives, this legislation is assumed to have no inflationary effect on prices and costs in the operation of the national economy.

X. Oversight Findings and Recommendations

Clause 2(1)(3)(A) of rule XI requires each committee report to contain oversight findings and recommendations required pursuant to clause 2(b)(1) of rule X. The Committee has no oversight findings.

XI. Oversight Findings and Recommendations by the Committee on Government Reform and Oversight

Clause 2(1)(3)(D) of rule XI requires each committee report to contain a summary of the oversight findings and recommendations made by the House Government Reform and Oversight Committee pursuant to clause 4(c)(2) of rule X, whenever such findings have been timely submitted. The Committee on Science has received no such findings or recommendations from the Committee on Government Reform and Oversight.

XII. Changes in Existing Law Made by the Bill, as Reported

In compliance with clause 3 of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italics, existing law in which no change is proposed is shown in roman):

NATIONAL SCIENCE FOUNDATION ACT OF 1950

* * * * * * *

FUNCTIONS OF THE FOUNDATION

SEC. 3. (a) * * *

* * * * * * *

[(f) The Foundation shall render an annual report to the President for submission on or before the 15th day of April of each year to the Congress, summarizing the activities of the Foundation and making such recommendations as it may deem appropriate. Such report shall include information as to the acquisition and disposition by the Foundation of any patents and patent rights.]

(f) The Foundation shall provide an annual report to the President which shall be submitted by the Director to the Congress at the time of the President's annual budget submission. The report shall—

(1) contain a strategic plan, or an update to a previous strategic plan, which—

(A) defines for a three-year period the overall goals for the Foundation and specific goals for each major activity of

the Foundation, including each scientific directorate, the education directorate, and the polar programs office; and

(B) describe how the identified goals relate to national needs and will exploit new opportunities in science and technology;

(2) identify the criteria and describe the procedures which the Foundation will use to assess progress toward achieving the goals identified in accordance with paragraph (1);

(3) review the activities of the Foundation during the preceding year which have contributed toward achievement of goals identified in accordance with paragraph (1) and summarize planned activities for the coming three years in the context of the identified goals, with particular emphasis on the Foundation's planned contributions to major multi-agency research and education initiatives;

(4) contain such recommendations as the Foundation considers appropriate; and

(5) include information on the acquisition and disposition by the Foundation of any patents and patent rights.

* * * * * * *

[(g) In carrying out subsection (a)(4), the Foundation is authorized to foster and support access by the research and education communities to computer networks which may be used substantially for purposes in addition to research and education in the sciences and engineering, if the additional uses will tend to increase the overall capabilities of the networks to support such research and education activities.**]**

NATIONAL SCIENCE BOARD

SEC. 4. (a) * * *

* * * * * * *

[(k)**]** *(l)* Members of the Board shall be required to file a financial disclosure report under title II of the Ethics in Government Act of 1978 (5 U.S.C. App. 92 Stat. 1836), except that such reports shall be held confidential and exempt from any law otherwise requiring their public disclosure.

DIRECTOR OF THE FOUNDATION

SEC. 5. (a) * * *

* * * * * * *

(e)(1) * * *

[(2) Any delegation of authority or imposition of conditions under the preceding sentence shall be effective only for such period of time, not exceeding two years, as the Board may specify, and shall be promptly published in the Federal Register and reported to the Committees on Labor and Human Resources and Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives. On October 1 of each odd-numbered year the Board shall submit to the Congress a concise report which explains and justifies any actions taken by the Board under this subsection to delegate its authority or impose conditions within the preceding two years. The

provisions of this subsection shall cease to be effective at the end of fiscal year 1989.]

(2) Any delegation of authority or imposition of conditions under paragraph (1) shall be promptly published in the Federal Register and reported to the Committees on Labor and Human Resources and Commerce, Science, and Transportation of the Senate and the Committee on Science of the House of Representatives.

* * * * * * *

DIVISIONS WITHIN THE FOUNDATION

SEC. 8. There shall be within the Foundation such Divisions as the Director, in consultation with the Board, may from time to time determine. *The Director may appoint, in consultation with the Board, not more than 6 Assistant Directors to assist in managing the Divisions.*

* * * * * * *

MISCELLANEOUS PROVISIONS

SEC. 14. (a) * * *

* * * * * * *

(c) The members of the Board and the members of each special commission shall *be entitled to* receive compensation for each day engaged in the business of the Foundation*, including traveltime,* at a rate fixed by the Chairman but not exceeding the rate specified for the daily rate for GS–18 of the General Schedule under section 5332 of title 5, United States Code, and shall be allowed travel expenses as authorized by section 5703 of title 5, United States Code.

* * * * * * *

SECURITY PROVISIONS

SEC. 15. (a) The Foundation shall not support any research or development activity in the field of nuclear energy, nor shall it exercise any authoriity pursuant to section 11(e) in respect to that field, without first having obtained the concurrence of the [Atomic Energy Commission] *Secretary of Energy* that such activity will not adversely affect the common defense and security. To the extent that such activity involves restricted data as defined in the Atomic Energy Act of 1954 the provisions of that Act regarding the control of the dissemination of restricted data and the security clearance of those individuals to be given access to restricted data shall be applicable. Nothing in this Act shall supersede or modify any provision of the Atomic Energy Act of 1954.

* * * * * * *

SECTION 203 OF THE ACADEMIC RESEARCH FACILITIES MODERNIZATION ACT OF 1988

ESTABLISHMENT OF PROGRAM

SEC. 203. (a) * * *

(b)(1) * * *

* * * * * * *

(3) The Director shall, in making awards under the Program, consider the extent to which that institution or consortium has received funds for the repair, renovation, construction, or replacement of academic facilities from any other Federal funding source within the 5-year period immediately preceding the application. [The Director shall give priority to institutions or consortia that have not received such funds in the preceding 5 years.] *The Director shall give priority to institutions or consortia that have not received such funds in the preceding 5 years, except that this sentence shall not apply to previous funding received for the same multiyear project.*

* * * * * * *

SECTION 6 OF THE NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT, 1976

SEC. 6. (a) The National Science Foundation is authorized to establish the Alan T. Waterman Award for research or advanced study in the mathmatical, physical, medical, biological, engineering, behaviorial, [social,] social, or other sciences. The award authorized by this section shall consist of a suitable medal and a grant to support further research or study by the recipient. The National Science Board will periodically establish the amounts and terms of such grants under this section.

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SECTION 117 OF THE NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT OF 1988

PRESIDENTIAL AWARDS FOR TEACHING EXCELLENCE

SEC. 117. (a)(1)(A) * * *

(B) Each year the President is authorized to make no fewer than 108 awards under subparagraph (A). In selecting teachers for an award authorized by this subsection, the President shall select at least two teachers—

(i) * * *

* * * * * * *

[(v) from the United States Department of Defense Dependents' School.]

(v) from schools established outside the several States and the District of Columbia by any agency of the Federal Government for dependents of its employees.

(3)(A) Funds to carry out this subsection for any fiscal year shall be made available from amounts appropriated pursuant to annual authorization of appropriations for the Foundation for

[Science and Engineering Education] *Education and Human Resources*.

* * * * * * *

SECTION 822 OF THE NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL 1991

SEC. 822. [CRITICAL TECHNOLOGIES INSTITUTE] *SCIENCE STUDIES INSTITUTE*

(a) ESTABLISHMENT.—There shall be established a federally funded research and development center to be known as the "[Critical Technologies Institute] *Science Studies Institute*" (hereinafter in this section referred to as the "Institute").

(b) INCORPORATION.—[As determined by the chairman of the committee referred to in subsection (c), the] *The* Institute shall be—

(1) administered as a separate entity by an organization currently managing another federally funded research and development center; or

(2) incorporated as a nonprofit membership corporation.

[(c) OPERATING COMMITTEE.—(1) The Institute shall have an Operating Committee composed of six members as follows:

[(A) The Director of the Office of Science and Technology Policy, who shall chair the committee.

[(B) The Director of the National Institutes of Health.

[(C) The Under Secretary of Commerce for Technology.

[(D) The Director of the Advanced Research Projects Agency.

[(E) The Director of the National Science Foundation.

[(F) The Under Secretary of Energy having responsibility for science and technology matters.

[(2) The Operating Committee shall meet not less than four times each year.

[(d)] *(c)* DUTIES.—The duties of the Institute shall include the following:

(1) The assembly of timely and authoritative information regarding significant developments and trends in *science and* technology research and development in the United States and abroad, [with particular emphasis on information relating to the technologies identified in the most recent biennial report submitted to Congress by the President pursuant to section 603(d) of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6683(d)).] *and developing and maintaining relevant informational and analytical tools.*

(2) Analysis and interpretation of the information referred to in paragraph (1) [to determine whether such developments and trends are likely to affect United States technology policies] *with particular attention to the scope and content of the Federal science and technology research and develop portfolio as it affects interagency and national issues*.

[(3) Initiation of studies and analyses (including systems analyses and technology assessments) of alternatives available

for ensuring long-term leadership by the United States in the development and application of the technologies referred to in paragraph (1), including appropriate roles for the Federal Government, State governments, private industry, and institutions of higher education in the development and application of such technologies.]

(3) Initiation of studies and analysis of alternatives available for ensuring the long-term strength of the United States in the development and application of science and technology, including appropriate roles for the Federal Government, State governments, private industry, and institutions of higher education in the development and application of science and technology.

(4) Provision, upon the request of the Director of the Office of Science and Technology Policy, of technical support and assistance—

(A) to the committees and panels of the President's Council of Advisers on Science and Technology that provide advice to the Executive branch on *science and* technology policy; and

[(B) to the committees and panels of the Federal Coordinating Council for Science, Engineering, and Technology that are responsible for planning and coordinating activities of the Federal Government to advance the development of critical technologies and sustain and strengthen the technology base of the United States.]

(B) to the interagency committees and panels of the Federal Government concerned with science and technology.

[(e)] *(d)* CONSULTATION ON INSTITUTE ACTIVITIES.—In carrying out the duties referred to in subsection [(d)] *(c)*, personnel of the Institute shall—

(1) consult widely with representatives from private industry, institutions of higher education, and nonprofit institutions; and

(2) to the maximum extent practicable, incorporate information and perspectives derived from such consultations in carrying out such duties.

[(f)] *(e)* ANNUAL REPORTS.—The committee shall submit to the President an annual report on the activities of the committee under this section. Each report shall be in accordance with requirements prescribed by the President.

[(g) SPONSORSHIP.—(1) The Director of the National Science Foundation shall be the sponsor of the Institute.

[(2) The Director of the National Science Foundation, in consultation with the chairman of the committee, shall enter into a sponsoring agreement with respect to the Institute. The sponsoring agreement shall require that the Institute carry out such functions as the chairman of the committee may specify consistent with the duties referred to in subsection (d). The sponsoring agreement shall be consistent with the general requirements prescribed for such a sponsoring agreement by the Administrator for Federal Procurement Policy.]

(f) SPONSORSHIP.—The Director of the Office of Science and Technology Policy shall be the sponsor of the Institute.

TITLE 49, UNITED STATES CODE

* * * * * * *

SUBTITLE VII—AVIATION PROGRAMS

* * * * * * *

SUBPART III—SAFETY

* * * * * * *

CHAPTER 445—FACILITIES, PERSONNEL, AND RESEARCH

* * * * * * *

§ 44501. Plans and policy

(a) * * *

* * * * * * *

(c) NATIONAL AVIATION RESEARCH PLAN.—(1) * * *

(2)(A) The plan shall describe, for a [15-year] *5-year* period, the research, engineering, and development that the Administrator of the Federal Aviation Administration considers necessary—

(i) * * *

* * * * * * *

[(B) The plan shall cover all research conducted under sections 40119, 44504, 44505, 44507, 44511–44513, and 44912 of this title and shall identify complementary and coordinated research efforts that the Administrator of the National Aeronautics and Space Administration conducts with amounts specifically appropriated to the Administration. For projects for which the Administrator of the Federal Aviation Administration anticipates requesting an appropriation, the plan shall include—

[(i) for the first 2 years of the plan, detailed annual estimates of the schedule, cost, and work-force levels for each research project, including a description of the scope and content of each major contract, grant, or interagency agreement;

[(ii) for the 3d, 4th, and 5th years of the plan, estimates of the total cost of each major project and any additional major research projects that may be required to meet long-term objectives and that may have significant impact on future appropriations requirements;

[(iii) for the 6th and subsequent years of the plan, the long-term objectives the Administrator of the Federal Aviation Administration considers necessary to ensure that aviation safety will be given the highest priority; and

[(iv) details of a program to disseminate to the private sector the results of aviation research conducted by the Administrator of the Federal Aviation Administration, including any new technologies developed.]

(B) The plan shall—

(i) provide estimates by year of the schedule, cost, and work force levels for each active and planned major research and development project under sections 40119, 44504, 44505, 44507,

44509, 44511–44513, and 44912 of this title, including activities carried out under cooperative agreements with other Federal departments and agencies;

(ii) specify the goals and the priorities for allocation of resources among the major categories of research and development activities, including the rationale for the priorities identified;

(iii) identify the allocation of resources among long-term research, near-term research, and development activities; and

(iv) highlight the research and development activities that address specific recommendations of the research advisory committee established under section 44508 of this title, and document the recommendations of the committee that are not accepted, specifying the reasons for nonacceptance.

(3) Subject to section 40119(b) of this title and regulations prescribed under section 40119(b), the Administrator of the Federal Aviation Administration shall submit to the committees named in paragraph (1) of this subsection an annual report on the accomplishments of the research completed during the prior fiscal year, *including a description of the dissemination to the private sector of research results and a description of any new technologies developed*. The report shall be submitted with the plan required under paragraph (1) and be organized to allow comparison with the plan in effect for the prior fiscal year.

* * * * * * *

§ 44508. Research advisory committee

(a) ESTABLISHMENT AND DUTIES.—(1) There is a research advisory committee in the Federal Aviation Administration. The committee shall—

(A) * * *

(B) assist in ensuring that the research is coordinated with similar research being conducted outside the Administration; **[**and**]**

(C) review the operations of the regional centers of air transportation excellence established under section 44513 of this title**[**.**]***; and*

(D) annually review the allocation made by the Administrator of the amounts authorized by section 48102(a) of this title among the major categories of research and development activities carried out by the Administration and provide advice and recommendations to the Administrator on whether such allocation is appropriate to meet the needs and objectives identified under subparagraph (A).

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SUBPART IV—ENFORCEMENT AND PENALTIES

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PART C—FINANCING

CHAPTER 481—AIRPORT AND AIRWAY TRUST FUND AUTHORIZATIONS

* * * * * * *

§ 48102. Research and development

(a) AUTHORIZATION OF APPROPRIATIONS.—Not more than the following amounts may be appropriated to the Secretary of Transportation out of the Airport and Airway Trust Fund established under section 9502 of the Internal Revenue Code of 1986 (26 U.S.C. 9502) to carry out sections 44504, 44505, 44507, 44509, and 44511–44513 of this title:

(1) for fiscal year 1995—

(A) * * *

* * * * * * *

(J) $5,199,000 for innovative/cooperative research projects and activities; [and]

(2) for fiscal year 1996—

(A) * * *

* * * * * * *

(J) $5,459,000 for innovative/cooperative research projects and activities[.]*; and*

(3) for fiscal year 1997—

(A) $10,000,000 for system development and infrastructure projects and activities;

(B) $39,911,000 for capacity and air traffic management technology projects and activities;

(C) $20,371,000 for communications, navigation, and surveillance projects and activities;

(D) $6,411,000 for weather projects and activities;

(E) $6,000,000 for airport technology projects and activities;

(F) $37,978,000 for aircraft safety technology projects and activities;

(G) $36,045,000 for system security technology projects and activities;

(H) $23,682,000 for human factors and aviation medicine projects and activities;

(I) $3,800,000 for environment and energy projects and activities;

(J) $1,500,000 for innovative/cooperative research projects and activities; and

(K) such sums as may be necessary for other research, engineering, and development activities described in the President's fiscal year 1997 budget request to the Congress under the category "Engineering, development, test, and evaluation" of Facilities and Equipment.

(b) [AVAILABILITY FOR RESEARCH.—(1)] *RESEARCH PRIORITIES.—(1) The Administrator shall consider the advice and recommendations of the research advisory committee established by section 44508 of this title in establishing priorities among major*

categories of research and development activities carried out by the Federal Aviation Administration.

(2) At least 15 percent of the amount appropriated under subsection (a) of this section shall be for long-term research projects.

[(2)**]** *(3)* At least 3 percent of the amount appropriated under subsection (a) of this section shall be available to the Administrator of the Federal Aviation Administration to make grants under section 44511 of this title.

[(c) TRANSFERS BETWEEN CATEGORIES.—(1) Not more than 10 percent of the net amount authorized for a category of projects and activities in a fiscal year under subsection (a) of this section may be transferred to or from that category in that fiscal year.

[(2) The Secretary may transfer more than 10 percent of an authorized amount to or from a category only after—

[(A) submitting a written explanation of the proposed transfer to the Committees on Science, Space, and Technology and Appropriations of the House of Representatives and the Committees on Commerce, Science, and Transportation and Appropriations of the Senate; and

[(B) 30 days have passed after the explanation is submitted or each Committee notifies the Secretary in writing that it does not object to the proposed transfer.**]**

(c) DESIGNATION OF ACTIVITIES.—(1) The amounts appropriated under subsection (a) are for the support of all research and development activities carried out by the Federal Aviation Administration that fall within the categories of basic research, applied research, and development, including the design and development of prototypes, in accordance with the classifications of the Office of Management and Budget Circular A–11 (Budget Formulation/Submission Process).

(2) The President's annual budget request for the Federal Aviation Administration shall include all research and development activities within a single budget category. All of the activities carried out by the Administration within the categories of basic research, applied research, and development, as classified by the Office of Management and Budget Circular A–11, shall be placed in this single budget category.

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SUBTITLE IX—COMMERCIAL SPACE TRANSPORTATION

* * * * * * *

CHAPTER 701—COMMERCIAL SPACE LAUNCH ACTIVITIES

Sec.
70101. Findings and purposes.
70102. Definitions.
70103. General authority.
[70104. Restrictions on launches and operations.**]**
70104. Restrictions on launches, operations, and reentries.

* * * * * * *

[70108. Prohibition, suspension, and end of launches and operation of launch sites.

[70109. Preemption of scheduled launches.]
70108. Prohibition, suspension, and end of launches, operation of launch sites and reentry sites, and reentries.
70109. Preemption of scheduled launches or reentries.

* * * * * * *

70120. Regulations.
70121. Report to Congress.

§ 70101. Findings and purposes

(a) FINDINGS.—Congress finds that—

(1) * * *

* * * * * * *

(3) new and innovative equipment and services are being sought, produced, and offered by entrepreneurs in telecommunications, information services, *microgravity research,* and remote sensing technologies;

(4) the private sector in the United States has the capability of developing and providing private satellite launching*, reentry,* and associated services that would complement the launching*, reentry,* and associated services now available from the United States Government;

(5) the development of commercial launch vehicles*, reentry vehicles,* and associated services would enable the United States to retain its competitive position internationally, contributing to the national interest and economic well-being of the United States;

(6) providing launch services *and reentry services* by the private sector is consistent with the national security and foreign policy interests of the United States and would be facilitated by stable, minimal, and appropriate regulatory guidelines that are fairly and expeditiously applied;

(7) the United States should encourage private sector launches*, reentries,* and associated services and, only to the extent necessary, regulate those launches*, reentries,* and services to ensure compliance with international obligations of the United States and to protect the public health and safety, safety of property, and national security and foreign policy interests of the United States;

(8) space transportation, including the establishment and operation of launch sites*, reentry sites,* and complementary facilities, the providing of launch services *and reentry services*, the establishment of support facilities, and the providing of support services, is an important element of the transportation system of the United States, and in connection with the commerce of the United States there is a need to develop a strong space transportation infrastructure with significant private sector involvement; and

(9) the participation of State governments in encouraging and facilitating private sector involvement in space-related activity, particularly through the establishment of a space transportation-related infrastructure, including launch sites, *reentry sites,* complementary facilities, and launch site *and reentry site* support facilities, is in the national interest and is of significant public benefit.

(b) PURPOSES.—The purposes of this chapter are—

(1) * * *

(2) to encourage the United States private sector to provide launch vehicles *reentry vehicles,* and associated services by—

(A) simplifying and expediting the issuance and transfer of commercial [launch] licenses; and

(B) facilitating and encouraging the use of Government-developed space technology;

(3) to provide that the Secretary of Transportation is to oversee and coordinate the conduct of commercial launch *and reentry* operations, issue and transfer commercial [launch] licenses authorizing those operations, and protect the public health and safety, safety of property, and national security and foreign policy interests of the United States; and

(4) to facilitate the strengthening and expansion of the United States space transportation infrastructure, including the enhancement of United States launch sites and launch-site support facilities, *and development of reentry sites,* with Government, State, and private sector involvement, to support the full range of United States space-related activities.

§ 70102. Definitions

In this chapter—

(1) * * *

* * * * * * *

(3) "launch" means to place or try to place a launch vehicle [and any payload] *or reentry vehicle and any payload from Earth—*

(A) * * *

* * * * * * *

(5) "launch services" means—

(A) activities directly related to the preparation of a launch site or payload facility for one or more launches;

[(A)] *(B)* activities involved in the preparation of a launch vehicle and payload for launch; and

[(B)] *(C)* the conduct of a launch.

* * * * * * *

(8) "payload" means an object that a person undertakes to place in outer space by means of a launch vehicle *or reentry vehicle*, including components of the vehicle specifically designed or adapted for that object.

(9) "person" means an individual and an entity organized or existing under the laws of a State or country.

(10) "reenter" and "reentry" mean to return or attempt to return, purposefully, a reentry vehicle and its payload, if any, from Earth orbit or from outer space to Earth.

(11) "reentry services" means—

(A) activities involved in the preparation of a reentry vehicle and its payload, if any, for reentry; and

(B) the conduct of a reentry.

(12) "reentry site" means the location on Earth to which a reentry vehicle is intended to return (as defined in a license the Secretary issues or transfers under this chapter).

(13) "reentry vehicle" means a vehicle designed to return from Earth orbit or outer space to Earth, or a reusable launch vehicle designed to return from outer space substantially intact.

[(10)**]** *(14)* "State" means a State of the United States, the District of Columbia, and a territory or possession of the United States.

[(11)**]** *(15)* "third party" means a person except—

(A) the United States Government or the Government's contractors or subcontractors involved in launch services *or reentry services*;

(B) a licensee or transferee under this chapter;

(C) a licensee's or transferee's contractors, subcontractors, or customers involved in launch services *or reentry services*; or

(D) the customer's contractors or subcontractors involved in launch services *or reentry services*.

[(12)**]** *(16)* "United States" means the States of the United States, the District of Columbia, and the territories and possessions of the United States.

§ 70103. General authority

(a) GENERAL.—The Secretary of Transportation shall carry out this chapter.

(b) FACILITATING COMMERCIAL LAUNCHES *AND REENTRIES AND STATE SPONSORED SPACEPORTS*.—In carrying out this chapter, the Secretary shall—

(1) encourage, facilitate, and promote commercial space launches *and reentries* by the private sector *and State sponsored spaceports*; and

(2) take actions to facilitate private sector involvement in commercial space transportation activity, and to promote public-private partnerships involving the United States Government, State governments, and the private sector to build, expand, modernize, or operate a space launch *and reentry* infrastructure.

* * * * * * *

[§ 70104. Restrictions on launches and operations]

§ 70104. Restrictions on launches, operations, and reentries

(a) LICENSE REQUIREMENT.—A license issued or transferred under this chapter is required for the following:

(1) for a person to launch a launch vehicle or to operate a launch site *or reentry site, or to reenter a reentry vehicle,* in the United States.

(2) for a citizen of the United States (as defined in section 70102(1)(A) or (B) of this title) to launch a launch vehicle or to operate a launch site *or reentry site, or to reenter a reentry vehicle,* outside the United States.

(3) for a citizen of the United States (as defined in section 70102(1)(C) of this title) to launch a launch vehicle or to operate a launch site *or reentry site, or to reenter a reentry vehicle,* outside the United States and outside the territory of a foreign country unless there is an agreement between the United

States Government and the government of the foreign country providing that the government of the foreign country has jurisdiction over the launch or operation *or reentry*.

(4) for a citizen of the United States (as defined in section 70102(1)(C) of this title) to launch a launch vehicle or to operate a launch site *or reentry site, or to reenter a reentry vehicle,* in the territory of a foreign country if there is an agreement between the United States Government and the government of the foreign country providing that the United States Government has jurisdiction over the launch or operation *or reentry*.

(b) COMPLIANCE WITH PAYLOAD REQUIREMENTS.—The holder of a [launch] license under this chapter may launch *or reenter* a payload only if the payload complies with all requirements of the laws of the United States related to launching *or reentering* a payload.

(c) [PREVENTING LAUNCHES.—] *PREVENTING LAUNCHES AND REENTRIES.*—The Secretary of Transportation shall establish whether all required licenses, authorizations, and permits required for a payload have been obtained. If no license, authorization, or permit is required, the Secretary may prevent the launch *or reentry* if the Secretary decides the launch *or reentry* would jeopardize the public health and safety, safety of property, or national security or foreign policy interest of the United States.

§ 70105. License applications and requirements

(a) APPLICATIONS.—*(1)* A person may apply to the Secretary of Transportation for a license or transfer of a license under this chapter in the form and way the Secretary prescribes. Consistent with the public health and safety, safety of property, and national security and foreign policy interests of the United States, the Secretary, not later than 180 days after [receiving an application] *accepting an application in accordance with criteria established pursuant to subsection (b)(2)(D)*, shall issue or transfer a license if the Secretary decides in writing that the applicant complies, and will continue to comply, with this chapter and regulations prescribed under this chapter. The Secretary shall inform the applicant of any pending issue and action required to resolve the issue if the Secretary has not made a decision not later than 120 days after [receiving an application] *accepting an application in accordance with criteria established pursuant to subsection (b)(2)(D). The Secretary shall submit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a written notice not later than 7 days after any occurrence when a license is not issued within the deadline established by this subsection.*

(2) In carrying out paragraph (1), the Secretary may establish procedures for certification of the safety of a launch vehicle, reentry vehicle, or safety system, procedure, service, or personnel that may be used in conducting licensed commercial space launch or reentry activities.

(b) REQUIREMENTS.—(1) Except as provided in this subsection, all requirements of the laws of the United States applicable to the launch of a launch vehicle or the operation of a launch site *or a reentry site, or the reentry of a reentry vehicle,* are requirements for a license under this chapter.

(2) The Secretary may prescribe—

(A) any term necessary to ensure compliance with this chapter, including on-site verification that a launch [or operation], *operation, or reentry* complies with representations stated in the application;

(B) an additional requirement necessary to protect the public health and safety, safety of property, national security interests, and foreign policy interests of the United States; [and]

(C) by regulation that a requirement of a law of the United States not be a requirement for a license if the Secretary, after consulting with the head of the appropriate executive agency, decides that the requirement is not necessary to protect the public health and safety, safety of property, and national security and foreign policy interests of the United States[.]*; and*

(D) regulations establishing criteria for accepting or rejecting an application for a license under this chapter within 60 days after receipt of such application.

(3) The Secretary may waive a requirement*, or the requirement to obtain a license,* for an individual applicant if the Secretary decides that the waiver is in the public interest and will not jeopardize the public health and safety, safety of property, and national security and foreign policy interests of the United States.

* * * * * * *

§ 70106. Monitoring activities

(a) GENERAL REQUIREMENTS.—A licensee under this chapter must allow the Secretary of Transportation to place an officer or employee of the United States Government or another individual as an observer at a launch site *or reentry site* the licensee uses, at a production facility or assembly site a contractor of the licensee uses to produce or assemble a launch vehicle *or reentry vehicle*, or at a site at which a payload is integrated with a launch vehicle *or reentry vehicle*. The observer will monitor the activity of the licensee or contractor at the time and to the extent the Secretary considers reasonable to ensure compliance with the license or to carry out the duties of the Secretary under section 70104(c) of this title. A licensee must cooperate with an observer carrying out this subsection.

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[§ 70108. Prohibition, suspension, and end of launches and operation of launch sites]

§ 70108. Prohibition, suspension, and end of launches, operation of launch sites and reentry sites, and reentries

(a) GENERAL AUTHORITY.—The Secretary of Transportation may prohibit, suspend, or end immediately the launch of a launch vehicle or the operation of a launch site *or reentry site, or reentry of a reentry vehicle,* licensed under this chapter if the Secretary decides the launch or operation *or reentry* is detrimental to the public

health and safety, the safety of property, or a national security or foreign policy interest of the United States.

* * * * * * *

[§ 70109. Preemption of scheduled launches]

§ 70109. Preemption of scheduled launches or reentries

(a) GENERAL.—With the cooperation of the Secretary of Defense and the Administrator of the National Aeronautics and Space Administration, the Secretary of Transportation shall act to ensure that a launch *or reentry* of a payload is not preempted from access to a United States Government launch site*, reentry site,* or launch property, except for imperative national need, when a launch date commitment *or reentry date commitment* from the Government has been obtained for a launch *or reentry* licensed under this chapter. A licensee or transferee preempted from access to a launch site*, reentry site,* or launch property does not have to pay the Government any amount for launch services*, or services related to a reentry,* attributable only to the scheduled launch *or reentry* prevented by the preemption.

* * * * * * *

(c) REPORTS.—In cooperation with the Secretary of Transportation, the Secretary of Defense or the Administrator, as appropriate, shall submit to Congress not later than 7 days after a decision to preempt under subsection (a) of this section, a report that includes an explanation of the circumstances justifying the decision and a schedule for ensuring the prompt launching *or reentry* of a preempted payload.

§ 70110. Administrative hearings and judicial review

(a) ADMINISTRATIVE HEARINGS.—The Secretary of Transportation shall provide an opportunity for a hearing on the record to—

(1) an applicant under this chapter, for a decision of the Secretary under section 70105(a) of this title to issue or transfer a license with terms or deny the issuance or transfer of a license;

(2) an owner or operator of a payload under this chapter, for a decision of the Secretary under section 70104(c) of this title to prevent the launch *or reentry* of the payload; and

(3) a licensee under this chapter, for a decision of the Secretary under—

(A) section 70107 (b) or (c) of this title to modify, suspend, or revoke a license; or

(B) section 70108(a) of this title to prohibit, suspend, or end a launch or operation of a launch site *or reentry site, or reentry of a reentry vehicle,* licensed by the Secretary.

* * * * * * *

§ 70111. Acquiring United States Government property and services

(a) GENERAL REQUIREMENTS AND CONSIDERATIONS.—(1) The Secretary of Transportation shall facilitate and encourage the acquisition by the private sector and State governments of—

(A) launch *or reentry* property of the United States Government that is excess or otherwise is not needed for public use; and

(B) launch services *and reentry services*, including utilities, of the Government otherwise not needed for public use.

The Secretary shall establish criteria and procedures for determining the priority of competing requests from the private sector and State governments for property and services under this section.

(2) In acting under paragraph (1) of this subsection, the Secretary shall consider the commercial availability on reasonable terms of substantially equivalent launch property or launch services *or reentry services* from a domestic source.

(b) PRICE.—(1) In this subsection, "direct costs" means the [actual costs] *additive costs only* that—

(A) can be associated unambiguously with a commercial launch *or reentry* effort; and

(B) the Government would not incur if there were no commercial launch *or reentry* effort.

(2) In consultation with the Secretary, the head of the executive agency providing the property or service under subsection (a) of this section shall establish the price for the property or service. The price for—

(A) acquiring launch property by sale or transaction instead of sale is the fair market value;

(B) acquiring launch property (except by sale or transaction instead of sale) is an amount equal to the direct costs, including specific wear and tear and property damage, the Government incurred because of acquisition of the property; and

(C) launch services *or reentry services* is an amount equal to the direct costs, including the basic pay of Government civilian and contractor personnel, the Government incurred because of acquisition of the services.

(3) The Secretary shall ensure the establishment of uniform guidelines for, and consistent implementation of, this section by all Federal agencies.

* * * * * * *

(d) COLLECTION BY OTHER GOVERNMENTAL HEADS.—The head of a department, agency, or instrumentality of the Government may collect a payment for an activity involved in producing a launch vehicle [or its payload for launch] *or reentry vehicle, or the payload of either, for launch or reentry* if the activity was agreed to by the owner or manufacturer of the launch vehicle*, reentry vehicle,* or payload.

§ 70112. Liability insurance and financial responsibility requirements

(a) GENERAL REQUIREMENTS.—(1) When a *launch, reentry, or site operator* license is issued or transferred under this chapter, the licensee or transferee shall obtain liability insurance or demonstrate financial responsibility in amounts to compensate for the maximum probable loss from claims by—

(A) * * *

* * * * * * *

(3) For the total claims related to one launch *or reentry*, a licensee or transferee is not required to obtain insurance or demonstrate financial responsibility of more than—

(A) * * *

* * * * * * *

(4) An insurance policy or demonstration of financial responsibility under this subsection shall protect the following, to the extent of their potential liability for involvement in launch services *or reentry services*, at no cost to the Government:

(A) * * *

* * * * * * *

(b) RECIPROCAL WAIVER OF CLAIMS.—(1) A *launch, reentry, or site operator* license issued or transferred under this chapter shall contain a provision requiring the licensee or transferee to make a reciprocal waiver of claims with its contractors, subcontractors, and customers, and contractors and subcontractors of the customers, involved in launch services *or reentry services* under which each party to the waiver agrees to be responsible for property damage or loss it sustains, or for personal injury to, death of, or property damage or loss sustained by its own employees resulting from an activity carried out under the *applicable* license.

(2) The Secretary of Transportation shall make, for the Government, executive agencies of the Government involved in launch services *or reentry services*, and contractors and subcontractors involved in launch services *or reentry services*, a reciprocal waiver of claims with the licensee or transferee, contractors, subcontractors, and customers of the licensee or transferee, and contractors and subcontractors of the customers, involved in launch services *or reentry services* under which each party to the waiver agrees to be responsible for property damage or loss it sustains, or for personal injury to, death of, or property damage or loss sustained by its own employees resulting from an activity carried out under the *applicable* license. The waiver applies only to the extent that claims are more than the amount of insurance or demonstration of financial responsibility required under subsection (a)(1)(B) of this section. After consulting with the Administrator and the Secretary of the Air Force, the Secretary of Transportation may waive, for the Government and a department, agency, and instrumentality of the Government, the right to recover damages for damage or loss to Government property to the extent insurance is not available be-

cause of a policy exclusion the Secretary of Transportation decides is usual for the type of insurance involved.

* * * * * * *

(d) ANNUAL REPORT.—(1) Not later than November 15 of each year, the Secretary of Transportation shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science[, Space, and Technology] of the House of Representatives a report on current determinations made under subsection (c) of this section related to all issued licenses and the reasons for the determinations.

* * * * * * *

(e) LAUNCHES *OR REENTRIES* INVOLVING GOVERNMENT FACILITIES AND PERSONNEL.—The Secretary of Transportation shall establish requirements consistent with this chapter for proof of financial responsibility and other assurances necessary to protect the Government and its executive agencies and personnel from liability, death, bodily injury, or property damage or loss as a result of a launch or operation of a launch site *or reentry site or a reentry* involving a facility or personnel of the Government. The Secretary may not relieve the Government of liability under this subsection for death, bodily injury, or property damage or loss resulting from the willful misconduct of the Government or its agents.

(f) COLLECTION AND CREDITING PAYMENTS.—The head of a department, agency, or instrumentality of the Government shall collect a payment owed for damage or loss to Government property under its jurisdiction or control resulting from an activity carried out under a *launch, reentry, or site operator* license issued or transferred under this chapter. The payment shall be credited to the current applicable appropriation, fund, or account of the department, agency, or instrumentality.

§ 70113. Paying claims exceeding liability insurance and financial responsibility requirements

(a) GENERAL REQUIREMENTS.—(1) To the extent provided in advance in an appropriation law or to the extent additional legislative authority is enacted providing for paying claims in a compensation plan submitted under subsection (d) of this section, the Secretary of Transportation shall provide for the payment by the United States Government of a successful claim (including reasonable litigation or settlement expenses) of a third party against a licensee or transferee under this chapter, a contractor, subcontractor, or customer of the licensee or transferee, or a contractor or subcontractor of a customer, resulting from an activity carried out under the license issued or transferred under this chapter for death, bodily injury, or property damage or loss resulting from an activity carried out under the license. However, claims may be paid under this section only to the extent the total amount of successful claims related to one launch *or reentry*—

(A) is more than the amount of insurance or demonstration of financial responsibility required under section 70112(a)(1)(A) of this title; and

(B) is not more than $1,500,000,000 (plus additional amounts necessary to reflect inflation occurring after January

1, 1989) above that insurance or financial responsibility amount.

* * * * * * *

(d) SURVEYS, REPORTS, AND COMPENSATION PLANS.—(1) If as a result of an activity carried out under a license issued or transferred under this chapter the total of claims related to one launch *or reentry* is likely to be more than the amount of required insurance or demonstration of financial responsibility, the Secretary shall—

(A) survey the causes and extent of damage; and

(B) submit expeditiously to Congress a report on the results of the survey.

(2) Not later than 90 days after a court determination indicates that the liability for the total of claims related to one launch *or reentry* may be more than the required amount of insurance or demonstration of financial responsibility, the President, on the recommendation of the Secretary, shall submit to Congress a compensation plan that—

(A) * * *

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§ 70115. Enforcement and penalty

(a) * * *

(b) GENERAL AUTHORITY.—(1) In carrying out this chapter, the Secretary of Transportation may—

(A) * * *

* * * * * * *

(D) under lawful process—

(i) enter at a reasonable time a launch site, *reentry site,* production facility, assembly site of a launch vehicle *or reentry vehicle*, or site at which a payload is integrated with a launch vehicle *or reentry vehicle* to inspect an object to which this chapter applies or a record or report the Secretary requires be made or kept under this chapter; and

* * * * * * *

§ 70117. Relationship to other executive agencies, laws, and international obligations

(a) EXECUTIVE AGENCIES.—Except as provided in this chapter, a person is not required to obtain from an executive agency a license, approval, waiver, or exemption to launch a launch vehicle or operate a launch site *or reentry site, or to reenter a reentry vehicle*.

* * * * * * *

(d) CONSULTATION.—The Secretary of Transportation is encouraged to consult with a State to simplify and expedite the approval of a space launch *or reentry* activity.

* * * * * * *

[(f) LAUNCH NOT AN EXPORT.—A launch vehicle or payload that is launched is not, because of the launch, an export for purposes of a law controlling exports.**]**

(f) LAUNCH NOT AN EXPORT; REENTRY NOT AN IMPORT.—A launch vehicle, reentry vehicle, or payload that is launched or reentered is not, because of the launch or reentry, an export or import, respectively, for purposes of a law controlling exports or imports.

(g) NONAPPLICATION.—This chapter does not apply to—

(1) a launch, [operation of a launch vehicle or launch site,] *reentry, operation of a launch vehicle or reentry vehicle, or operation of a launch site or reentry site,* or other space activity the Government carries out for the Government; or

(2) planning or policies related to the launch, *reentry,* operation, or activity.

* * * * * * *

§ 70120. Regulations

The Secretary of Transportation, within 6 months after the date of the enactment of this section, shall issue regulations to carry out this chapter that include—

(1) guidelines for industry to obtain sufficient insurance coverage for potential damages to third parties;

(2) procedures for requesting and obtaining licenses to operate a commercial launch vehicle and reentry vehicle;

(3) procedures for requesting and obtaining operator licenses for launch and reentry; and

(4) procedures for the application of government indemnification.

§ 70121. Report to Congress

The Secretary of Transportation shall submit to Congress an annual report to accompany the President's budget request that—

(1) describes all activities undertaken under this chapter, including a description of the process for the application for and approval of licenses under this chapter and recommendations for legislation that may further commercial launches and reentries; and

(2) reviews the performance of the regulatory activities and the effectiveness of the Office of Commercial Space Transportation.

* * * * * * *

NATIONAL AERONAUTICS AND SPACE ACT OF 1958

TITLE I—SHORT TITLE, DECLARATION OF POLICY, AND DEFINITIONS

* * * * * * *

DECLARATION OF POLICY AND PURPOSE

SEC. 102. (a) * * *

* * * * * * *

[(f) The Congress declares that the general welfare of the United States requires that the unique competence in scientific and engineering systems of the National Aeronautics and Space Adminis-

tration also be directed toward the development of advanced automobile propulsion systems. Such development shall be conducted so as to contribute to the achievement of the purposes set forth in section 302(b) of the Automotive Propulsion Research and Development Act of 1978.

[(g)**]** *(f)* The Congress declares that the general welfare of the United States requires that the unique competence of the National Aeronautics and Space Administration in science and engineering systems be directed to assisting in bioengineering research, development, and demonstration programs designed to alleviate and minimize the effects of disability.

[(h)**]** *(g)* It is the purpose of this Act to carry out and effectuate the policies declared in subsections (a), (b), (c), (d), (e), **[**(f), and (g)**]** *and (f)*.

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TITLE II—COORDINATION OF AERONAUTICAL AND SPACE ACTIVITIES

* * * * * * *

REPORTS TO THE CONGRESS

SEC. 206. (a) The President shall transmit to the Congress in **[**January**]** *May* of each year a report, which shall include (1) a comprehensive description of the programed activities and the accomplishments of all agencies of the United States in the field of aeronautics and space activities during the preceding **[**calendar**]** *fiscal* year, and (2) an evaluation of such activities and accomplishments in terms of the attainment of, or the failure to attain, the objectives described in section 102(c) of this Act.

* * * * * * *

TITLE III—MISCELLANEOUS

* * * * * * *

ACCESS TO INFORMATION

SEC. 303. (a) Information obtained or developed by the Administrator in the performance of his functions under this Act shall be made available for public inspection, except (A) information authorized or required by Federal statute to be withheld, (B) information classified to protect the national security, and (C) information described in subsection (b) *or (c)*: *Provided,* That nothing in this Act shall authorize the withholding of information by the Administrator from the duly authorized committees of the Congress.

* * * * * * *

(c)(1) The Administrator, at his discretion or at the request of a private sector entity, shall delay for a period of at least one day, but not to exceed 5 years, the unrestricted public disclosure of technical data in the possession of, or under the control of, the Administration that has been generated in the performance of experimental, developmental, or research activities or programs funded jointly by the Administration and such private sector entity.

(2) Within 1 year after the date of the enactment of the National Aeronautics and Space Administration Authorization Act, Fiscal Year 1997, the Administrator shall issue regulations to carry out this subsection. Paragraph (1) shall not take effect until such regulations are issued.

(3) Regulations issued pursuant to paragraph (2) shall include—

(A) guidelines for a determination of whether data is technical data within the meaning of this subsection;

(B) provisions to ensure that technical data is available for dissemination within the United States to United States persons and entities in furtherance of the objective of maintaining leadership or competitiveness in civil and governmental aeronautical and space activities by the United States industrial base; and

(C) a specification of the period or periods for which the delay in unrestricted public disclosure of technical data is to apply to various categories of such data, and the restrictions on disclosure of such data during such period or periods, including a requirement that the maximum 5-year protection under this subsection shall not be provided unless at least 50 percent of the funding for the activities or programs is provided by the private sector.

(4) The Administrator shall annually report to the Congress all determinations made under paragraph (1).

(5) For purposes of this subsection, the term "technical data" means any recorded information, including computer software, that is or may be directly applicable to the design, engineering, development, production, manufacture, or operation of products or processes that may have significant value in maintaining leadership or competitiveness in civil and governmental aeronautical and space activities by the United States industrial base.

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SECTION 504 OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AUTHORIZATION ACT, FISCAL YEAR 1993

SEC. 504. LAUNCH VOUCHER DEMONSTRATION PROGRAM.

(a) COMMERCIAL SPACE VOUCHER DEMONSTRATION PROGRAM; EFFECTIVE PERIOD.—The Administrator shall establish a demonstration program to award vouchers for the payment of commercial launch services and payload integration services for the purpose of launching payloads funded by [the Office of Commercial Programs within] the National Aeronautics and Space Administration to become effective October 1, 1993. [Such program shall not be effective after September 30, 1995.]

* * * * * * *

[(c) ASSUMPTION OF CERTAIN RESPONSIBILITIES.—In carrying out the demonstration program established under subsection (a), the Administrator, in awarding vouchers, is limited to the launch

of payloads funded by the Office of Commercial Programs within the National Aeronautics and Space Administration.

[(d)] *(c)* ASSISTANCE.—The Administrator may provide voucher award recipients with such assistance, including contract formulation and technical support during the proposal evaluation, as may be necessary, to ensure the purchase of cost effective and reasonably reliable commercial launch services and payload integration services.

[(e)] *(d)* REPORT.—The Administrator shall conduct an ongoing review of the program established under this section, and shall, not later than January 31, 1995, report to Congress the results of such a review, together with recommendations for further action relating to the program.

UNITARY WIND TUNNEL PLAN ACT OF 1949

TITLE I

SEC. 101. The Administrator of the National Aeronautics and Space Administration (hereinafter referred to as the "Administrator") and the Secretary of Defense are hereby authorized and directed jointly to develop a unitary plan for the construction of [transsonic and supersonic] *transonic, supersonic, and hypersonic* wind-tunnel facilities for the solution of research, development, and evaluation problems in aeronautics, including the construction of facilities at educational institutions within the continental Emits of the United States for training and research in aeronautics, and to revise the uncompleted portions of the unitary plan from time to time to accord with changes in national defense requirements and scientific and technical advances. The Administrator and the Secretaries of the Army, the Navy, and the Air Force are authorized to proceed with the construction and equipment of facilities in implementation of the unitary plan to the extent permitted by appropriations pursuant to existing authority and the authority contained in titles I and II of this Act. Any further implementation of the unitary plan shall be subject to such additional authorizations as may be approved by Congress.

* * * * * * *

SEC. 103. (a) The Administrator is hereby authorized to expand the facilities at his existing [laboratories] *laboratories and centers* by the construction of additional [supersonic] *transonic, supersonic, and hypersonic* wind tunnels, including buildings, equipment, and accessory construction, and by the acquisition of land and installation of utilities.

* * * * * * *

(c) The facilities authorized by this section shall be operated and staffed by the Administrator but shall be available primarily to industry for testing experimental models in connection with the development of aircraft and missiles. Such tests shall be scheduled and conducted in accordance with industry's requirements and allocation of [laboratory] *facility* time shall be made in accordance with the, public interest, with proper emphasis upon the require-

ments of each military service and due consideration of civilian needs.

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TITLE 10, UNITED STATES CODE

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Subtitle A—General Military Law

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PART IV—SERVICE, SUPPLY, AND PROCUREMENT

* * * * * * *

CHAPTER 137—PROCUREMENT GENERALLY

§ 2307. Contract financing

(a) * * *

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(h) ACTION IN CASE OF FRAUD.—(1) * * *

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(8) This subsection applies to the agencies named in paragraphs (1), (2), (3), [and (4)] *(4), and (6)* of section 2303(a) of this title.

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Subtitle C—Navy and Marine Corps

PART I—ORGANIZATION

Chap.		Sec.
501.	Definitions	5001
503.	Department of the Navy	5011
505.	Office of the Chief of Naval Operations	5031

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PART IV—GENERAL ADMINISTRATION

631.	Secretary of the Navy: Miscellaneous Powers and Duties	7201
633.	Naval Vessels	7291

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665.	*National Oceanographic Partnership Program*	*7901*

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PART IV—GENERAL ADMINISTRATION

Chap.		Sec.
631.	Secretary of the Navy: Miscellaneous Powers and Duties	7201
633.	Naval Vessels	7291
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665.	*National Oceanographic Partnership Program*	*7901*
	* * * * * * *	

CHAPTER 665—NATIONAL OCEANOGRAPHIC PARTNERSHIP PROGRAM

Sec.
7901. National Oceanographic Partnership Program.
7902. National Ocean Research Leadership Council.
7903. Ocean Research Partnership Coordinating Group.
7904. Ocean Research Advisory Panel.

§ 7901. National Oceanographic Partnership Program

(a) ESTABLISHMENT.—The Secretary of the Navy shall establish a program to be known as the "National Oceanographic Partnership Program".

(b) PURPOSES.—The purposes of the program are as follows:

(1) To promote the national goals of assuring national security, protecting quality of life, and strengthening science and education through improved knowledge of the ocean.

(2) To coordinate and strengthen oceanographic efforts in support of those goals by—

(A) identifying and carrying out partnerships among Federal agencies, academia, industry, and other members of the oceanographic scientific community in the areas of data, resources, and education; and

(B) reporting annually to Congress on the program.

§ 7902. National Ocean Research Leadership Council

(a) COUNCIL.—There is established a National Ocean Research Leadership Council (hereinafter in this chapter referred to as the "Council").

(b) MEMBERSHIP.—The Council is composed of the following members:

(1) The Secretary of the Navy, who shall be the chairman of the Council.

(2) The Administrator of the National Oceanic and Atmospheric Administration, who shall be the vice chairman of the Council.

(3) The Director of the National Science Foundation.

(4) The Administrator of the National Aeronautics and Space Administration.

(5) The Deputy Secretary of Energy.

(6) The Administrator of the Environmental Protection Agency.

(7) The Commandant of the Coast Guard.

(8) The Director of the Geological Survey of the Department of the Interior.

(9) The Director of the Defense Advanced Research Projects Agency.

(10) The Director of the Minerals Management Service of the Department of the Interior.

(11) The President of the National Academy of Sciences, the President of the National Academy of Engineering, and the President of the Institute of Medicine.

(12) The Director of the Office of Science and Technology.

(13) The Director of the Office of Management and Budget.

(14) One member appointed by the Chairman from among individuals who will represent the views of ocean industries.

(15) One member appointed by the Chairman from among individuals who will represent the views of State governments.

(16) One member appointed by the Chairman from among individuals who will represent the views of academia.

(17) One member appointed by the Chairman from among individuals who will represent such other views as the Chairman considers appropriate.

(c) TERM OF OFFICE.—The term of office of a member of the Council appointed under paragraph (14), (15), (16), or (17) of subsection (b) shall be two years, except that any person appointed to fill a vacancy occurring before the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term.

(d) RESPONSIBILITIES.—The Council shall have the following responsibilities:

(1) To establish the Ocean Research Partnership Coordinating Group as provided in section 7903.

(2) To establish the Ocean Research Advisory Panel as provided in section 7904.

(3) To submit to Congress an annual report pursuant to subsection (e).

(e) ANNUAL REPORT.—Not later than March 1 of each year, the Council shall submit to Congress a report on the National Oceanographic Partnership Program. The report shall contain the following:

(1) A description of activities of the program carried out during the fiscal year before the fiscal year in which the report is prepared. The description also shall include a list of the members of the Ocean Research Partnership Coordinating Group, the Ocean Research Advisory Panel, and any working groups in existence during the fiscal year covered.

(2) A general outline of the activities planned for the program during the fiscal year in which the report is prepared.

(3) A summary of projects continued from the fiscal year before the fiscal year in which the report is prepared and projects expected to be started during the fiscal year in which the report is prepared and during the following fiscal year.

(4) A description of the involvement of the program with Federal interagency coordinating entities.

(5) The amounts requested, in the budget submitted to Congress pursuant to section 1105(a) of title 31 for the fiscal year following the fiscal year in which the report is prepared, for the programs, projects, and activities of the program and the esti-

mated expenditures under such programs, projects, and activities during such following fiscal year.

§ 7903. Ocean Research Partnership Coordinating Group

(a) ESTABLISHMENT.—The Council shall establish an entity to be known as the "Ocean Research Partnership Coordinating Group" (hereinafter in this chapter referred to as the "Coordinating Group").

(b) MEMBERSHIP.—The Coordinating Group shall consist of members appointed by the Council, with one member appointed from each Federal department or agency having an oceanographic research or development program.

(c) CHAIRMAN.—The Council shall appoint the Chairman of the Coordinating Group.

(d) RESPONSIBILITIES.—Subject to the authority, direction, and control of the Council, the Coordinating Group shall have the following responsibilities:

(1) To prescribe policies and procedures to implement the National Oceanographic Partnership Program.

(2) To review, select, and identify and allocate funds for partnership projects for implementation under the program, based on the following criteria:

(A) Whether the project addresses critical research objectives or operational goals, such as data accessibility and quality assurance, sharing of resources, or education.

(B) Whether the project has broad participation within the oceanographic community.

(C) Whether the partners have a long-term commitment to the objectives of the project.

(D) Whether the resources supporting the project are shared among the partners.

(E) Whether the project has been subjected to adequate peer review.

(3) To promote participation in partnership projects by each Federal department and agency involved with oceanographic research and by prescribing guidelines for participation in the program.

(4) To submit to the Council an annual report pursuant to subsection (i).

(e) PARTNERSHIP PROGRAM OFFICE.—The Coordinating Group shall establish, using competitive procedures, and oversee a partnership program office to carry out such duties as the Chairman of the Coordinating Group considers appropriate to implement the National Oceanographic Partnership Program, including the following:

(1) To establish and oversee working groups to propose partnership projects to the Coordinating Group and advise the Group on such projects.

(2) To manage peer review of partnership projects proposed to the Coordinating Group and competitions for projects selected by the Group.

(3) To submit to the Coordinating Group an annual report on the status of all partnership projects and activities of the office.

(f) CONTRACT AND GRANT AUTHORITY.—The Coordinating Group may authorize one or more of the departments or agencies represented in the Group to enter into contracts and make grants, using funds appropriated pursuant to an authorization for the National Oceanographic Partnership Program, for the purpose of implementing the program and carrying out the Coordinating Group's responsibilities.

(g) FORMS OF PARTNERSHIP PROJECTS.—Partnership projects selected by the Coordinating Group may be in any form that the Coordinating Group considers appropriate, including memoranda of understanding, cooperative research and development agreements, and similar instruments.

(h) ANNUAL REPORT.—Not later than February 1 of each year, the Coordinating Group shall submit to the Council a report on the National Oceanographic Partnership Program. The report shall contain, at a minimum, copies of any recommendations or reports to the Coordinating Group by the Ocean Research Advisory Panel.

§ 7904. Ocean Research Advisory Panel

(a) ESTABLISHMENT.—The Council shall appoint an Ocean Research Advisory Panel (hereinafter in this chapter referred to as the "Advisory Panel") consisting of not less than 10 and not more than 18 members.

(b) MEMBERSHIP.—Members of the Advisory Panel shall be appointed from among persons who are eminent in the field of marine science, or related fields, and who are representative, at a minimum, of the interests of government, academia, and industry.

(c) RESPONSIBILITIES.—(1) The Coordinating Group shall refer to the Advisory Panel, and the Advisory Panel shall review, each proposed partnership project estimated to cost more than $500,000. The Advisory Panel shall make any recommendations to the Coordinating Group that the Advisory Panel considers appropriate regarding such projects.

(2) The Advisory Panel shall make any recommendations to the Coordinating Group regarding activities that should be addressed by the National Oceanographic Partnership Program that the Advisory Panel considers appropriate.

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FEDERAL FIRE PREVENTION AND CONTROL ACT OF 1974

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AUTHORIZATION OF APPROPRIATIONS

SEC. 17. (a) * * *

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(g)(1) Except as otherwise specifically provided with respect to the payment of claims under section 11 of this Act, there are authorized to be appropriated to carry out the purposes of this Act—

(A) * * *

* * * * * * *

(E) $26,521,000 for the fiscal year ending September 30, 1993; [and]

(F) $27,529,000 for the fiscal year ending September 30, 1994[.]*; and*

(G) $27,560,000 for the fiscal year ending September 30, 1997.

* * * * * * *

FIRE PREVENTION AND CONTROL GUIDELINES FOR PLACES OF PUBLIC ACCOMMODATION

SEC. 29. (a) CONTENTS OF GUIDELINES.—The guidelines referred to in sections 28 and 30 consist of—

(1) a requirement that hard-wired, single-station smoke detectors be installed in accordance with National Fire Protection Association Standard 74*, or any successor standard thereto,* in each guest room in each place of public accommodation affecting commerce; and

(2) a requirement that an automatic sprinkler system be installed in accordance with National Fire Protection Association Standard 13 or 13–R, whichever is appropriate, *or any successor standards thereto,* in each place of public accommodation affecting commerce except those places that are 3 stories or lower.

(b) EXCEPTIONS.—(1) * * *

(2) The requirement described in subsection (a)(2) shall not apply to a place of public accommodation affecting commerce to the extent that such place of public accommodation affecting commerce is subject to a standard that includes a requirement or prohibition that prevents compliance with a provision of National Fire Protection Association Standard 13 or 13–R*, or any successor standards thereto*. In such a case, the place of public accommodation affecting commerce is exempt only from that specific provision.

* * * * * * *

SEC. 31. FIRE SAFETY SYSTEMS IN FEDERALLY ASSISTED BUILDINGS.

(a) * * *

* * * * * * *

(c) HOUSING.—(1)(A) Except as otherwise provided in this paragraph, no Federal funds may be used for the construction, purchase, lease, or operation by the Federal Government of housing in the United States for Federal employees or their dependents unless—

(i) in the case of a multifamily property acquired or rebuilt by the Federal Government after the date of enactment of this section, the housing is protected, before occupancy by Federal employees or their dependents, by an automatic sprinkler system (or equivalent level of safety) and hard-wired smoke detectors; and

(ii) in the case of any other housing, the housing, before—

(I) occupancy by the first Federal employees (or their dependents) who do not occupy such housing as of such date of enactment; or

(II) the expiration of 3 years after such date of enactment*, or in the case of housing under the control of the Department of the Army, 6 years after such date of enactment*,

whichever occurs first, is protected by hard-wired smoke detectors.

* * * * * * *

(2)(A) * * *

(B)(i) Except as provided in clause (ii), housing assistance may not be used in connection with any rebuilt multifamily property, unless after the rebuilding the multifamily property complies with the chapter on existing apartment buildings of National Fire Protection Association Standard 101 (known as the Life Safety Code), *or any successor standard thereto,* as in effect at the earlier of (I) the time of any approval by the Department of Housing and Urban Development of the specific plan or budget for rebuilding, or (II) the time that a binding commitment is made to provide housing assistance for the rebuilt property.

(ii) If any rebuilt multifamily property is subject to, and in compliance with, any provision of a State or local fire safety standard or code that prevents compliance with a specific provision of National Fire Protection Association Standard 101, *or any successor standard thereto,* the requirement under clause (i) shall not apply with respect to such specific provision.

* * * * * * *

WEATHER SERVICE MODERNIZATION ACT

* * * * * * *

SEC. 702. DEFINITIONS.

For the purposes of this title, the term—

(1) * * *

* * * * * * *

[(3) "Committee" means the Modernization Transition Committee established by section 707;

[(4)**]** *(3)* "degradation of service" means any decrease in or failure to maintain the quality and type of weather services provided by the National Weather Service to the public in a service area, including but not limited to a reduction in existing weather radar coverage at an elevation of 10,000 feet;

[(5)**]** *(4)* "field office" means any National Weather Service Office or National Weather Service Forecast Office;

[(6)**]** *(5)* "Plan" means the National Implementation Plan required under section 703;

[(7)**]** *(6)* "relocate" means to transfer from one location to another location that is outside the local commuting or service area;

[(8)**]** *(7)* "Secretary" means the Secretary of Commerce;

[(9)**]** *(8)* "service area" means the geographical area for which a field office provides services or conducts observations, including but not limited to local forecasts, severe weather

warnings, aviation support, radar coverage, and ground weather observations; and

[(10)] *(9)* "Strategic Plan" means the 10-year strategic plan for the comprehensive modernization of the National Weather Service, required under section 407 of the National Aeronautics and Space Administration Authorization Act, Fiscal Year 1989 (15 U.S.C. 313 note).

SEC. 703. NATIONAL IMPLEMENTATION PLAN.

[(a) NATIONAL IMPLEMENTATION PLAN.—]As part of the budget justification documents submitted to Congress in support of the annual budget request for the Department of Commerce, the Secretary shall include a National Implementation Plan for modernization of the National Weather Service for each fiscal year following fiscal year 1993 until such modernization is complete. The Plan shall set forth the actions, during the 2-year period beginning with the fiscal year for which the budget request is made, that will be necessary to accomplish the objectives described in the Strategic Plan, and shall include—

(1) detailed requirements for new technologies, facilities, staffing levels and positions, and funding, in accordance with the overall schedule for modernization;

(2) notification of any proposed action to change operations at a field office and the intended date of such operational change;

[(3) identification of any field office that the Secretary intends to certify under section 706, including the intended date of such certification;

[(4)] *(3)* special measures to test, evaluate, and demonstrate key elements of the modernized National Weather Service operations prior to national implementation, including a multistation operational demonstration which tests the performance of the modernization in an integrated manner for a sustained period;

[(5)] *(4)* detailed plans and funding requirements for meteorological research to be accomplishment under this title to assure that new techniques in forecasting will be developed to utilize the new technologies being implemented in the modernization; and

[(6)] *(5)* training and education programs to ensure that employees gain the necessary expertise to utilize the new technologies and to minimize employee displacement as a consequence of modernization.

[(b) TRANSMITTAL TO COMMITTEE.—The Secretary shall transmit a copy of each annual Plan to the Committee.

[(c) CONSULTATION.—In developing the Plan, the Secretary shall consult, as appropriate, with the Committee and public entities responsible for providing or utilizing weather services.]

* * * * * * *

[SEC. 706. RESTRUCTURING FIELD OFFICES.

[SEC. 706. (a) PROHIBITION.—The Secretary shall not close, before January 1, 1996, any field office pursuant to implementation of the Strategic Plan.

[(b) CERTIFICATION.—The Secretary shall not close, consolidate, automate, or relocate any field office, unless the Secretary has certified that such action will not result in any degradation of service. Such certification shall include—

[(1) a description of local weather characteristics and weather-related concerns which affect the weather services provided within the service area;

[(2) a detailed comparison of the services provided within the service area and the services to be provided after such action;

[(3) a description of any recent or expected modernization of National Weather Service operations which will enhance services in the service area;

[(4) an identification of any area within any State which would not receive coverage (at an elevation of 10,000 feet) by the next generation weather radar network;

[(5) evidence, based upon operational demonstration of modernized National Weather Service operations, which was considered in reaching the conclusion that no degradation in service will result from such action; and

[(6) any report of the Committee submitted under section 707(c) that evaluates the proposed certification.

[(c) PUBLIC REVIEW.—Each certification decision shall be preceded by—

[(1) publication in the Federal Register of a proposed certification; and

[(2) a 60-day period after such publication during which the public may provide comments to the Secretary on the proposed certification.

[(d) FINAL DECISION.—If after consideration of the public comment received under subsection (c) the Secretary, in consultation with the Committee, decides to close, consolidate, automate, or relocate any such field office, the Secretary shall publish a final certification in the Federal Register and submit the certification to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives.

[(e) SPECIAL CIRCUMSTANCES.—The Secretary may not close or relocate any field office—

[(1) which is located at an airport, unless the Secretary, in consultation with the Secretary of Transportation and the Committee, first conducts an air safety appraisal, determines that such action will not result in degradation of service that affects aircraft safety, and includes such determination in the certification required under subsection (b); or

[(2) which is the only office in a State, unless the Secretary first evaluates the effect on weather services provided to in-State users, such as State agencies, civil defense officials, and local public safety offices, and includes in the certification required under subsection (b) the Secretary's determination that a comparable level of weather services provided to such in-State users will remain.

[(f) LIAISON OFFICER.—The Secretary may not close, consolidate, automate, or relocate a field office until arrangements have

been made to maintain for a period of at least 2 years at least one person in the service area to act as a liaison officer who—

[(1) provides timely information regarding the activities of the National Weather Service which may affect service to the community, including modernization and restructuring; and

[(2) works with area weather service users, including persons associated with general aviation, civil defense, emergency preparedness, and the news media, with respect to the provision of timely weather warnings and forecasts.

[SEC. 707. MODERNIZATION TRANSITION COMMITTEE.

[(a) ESTABLISHMENT.—There is established a committee of 12 members to be known as the Modernization Transition Committee.

[(b) MEMBERSHIP AND TERMS.—(1) The Committee shall consist of—

[(A) five members representing agencies and departments of the United States which are responsible for providing or using weather services, including but not limited to the National Weather Service, the Department of Defense, the Federal Aviation Administration, and the Federal Emergency Management Agency; and

[(B) seven members to be appointed by the Secretary from civil defense and public safety organizations, news media, any labor organization certified by the Federal Labor Relations Authority as an exclusive representative of weather service employees, meteorological experts, and private sector users of weather information such as pilots and farmers.

[(2) The terms of office of a member of the Committee shall be 3 years; except that, of the original membership, four shall serve a 5-year term, four shall serve a 4-year term, and four shall serve a 3-year term. No individual may serve for more than one additional 3-year term.

[(3) The Secretary shall designate a chairman of the Committee from among its members.

[(c) DUTIES.—(1) The Committee may review any proposed certification under section 706 for which the Secretary has provided a notice of intent to certify in the Plan, and should review such a proposed certification if there is a significant possibility of degradation of service within the affected service area. Upon the request of the Committee, the Secretary shall make available to the Committee the supporting documents developed by the Secretary in connection with the proposed certification. The Committee may prepare and submit to the Secretary, prior to publication of the proposed certification, a report which evaluates the proposed certification on the basis of the modernization criteria and with respect to the requirement that there be no degradation of service.

[(2) The Committee shall advise the Congress and the Secretary on—

[(A) the implementation of the Strategic Plan, annual development of the Plan, and establishment and implementation of modernization criteria; and

[(B) matters of public safety and the provision of weather services which relate to the comprehensive modernization of the National Weather Service.

[(d) PAY AND TRAVEL EXPENSES.—Members of the Committee who are not employees of the United States shall each be paid at a rate equal to the daily equivalent of the rate for GS–18 of the General Schedule under section 5332 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the actual performance of duties vested in the Committee. Members shall receive travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code.

[(e) STAFF.—The Secretary shall make available to the Committee such staff, information, and assistance as it may reasonably require to carry out its activities.

[(f) TERMINATION.—The Committee shall terminate on December 31, 1999.]

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NATIONAL SEA GRANT COLLEGE PROGRAM ACT

* * * * * * *

SEC. 203. DEFINITIONS.

As used in this title—

(1) * * *

* * * * * * *

(4) The term "field related to ocean, coastal, and Great Lakes resources" means any [discipline or field (including marine science (and the physical, natural, and biological sciences, and engineering, included therein), marine technology, education, marine affairs and resource management, economics, sociology, communications, planning, law, international affairs, and public administration)] *field or discipline involving scientific research* which is concerned with or likely to improve the understanding, assessment, development, utilization, or conservation of ocean, coastal, and Great Lakes resources.

* * * * * * *

SEC. 208. FELLOWSHIPS.

(a) * * *

[(b) DEAN JOHN A. KNAUSS MARINE POLICY FELLOWSHIP.—The Under Secretary may award marine policy fellowships to support the placement of individuals at the graduate level of education in fields related to ocean, coastal and Great Lakes resources in positions with the executive and legislative branches of the United States Government. A fellowship awarded under this subsection shall be for a period of not more than 1 year.]

* * * * * * *

SEC. 209. SEA GRANT REVIEW PANEL.

(a) ESTABLISHMENT.—There shall be established an independent committee to be known as the sea grant review panel. The panel shall, on the 60th day after the date of the enactment of the Sea Grant Program Improvement Act of 1976, supersede the sea grant advisory panel in existence before such date of enactment.

(1) applications or proposals for, and performance under, grants and contracts awarded under section 205 [and section 3 of the Sea Grant Program Improvement Act of 1976];

(2) * * *

* * * * * * *

SEC. 212. AUTHORIZATION OF APPROPRIATIONS.

[(a) There is authorized to be appropriated to carry out the provisions of sections 205 and 208 of this Act, and section 3 of the Sea Grant Program Improvement Act of 1976 (33 U.S.C. 1124a), an amount—

[(1) for fiscal year 1991, not to exceed $44,398,000;

[(2) for fiscal year 1992, not to exceed $46,014,000;

[(3) for fiscal year 1993, not to exceed $47,695,000;

[(4) for fiscal year 1994, not to exceed $49,443,000; and

[(5) for fiscal year 1995, not to exceed $51,261,000.]

(a) GRANTS AND CONTRACTS; FELLOWSHIPS.—There are authorized to be appropriated to carry out sections 205 and 208, $34,500,000 for fiscal year 1997.

(b)(1) There is authorized to be appropriated for administration of this Act, including section 209, by the National Sea Grant Office and the Administration, [an amount—

[(A) for fiscal year 1991, not to exceed $2,500,000;

[(B) for fiscal year 1992, not to exceed $2,600,000;

[(C) for fiscal year 1993, not to exceed $2,700,000;

[(D) for fiscal year 1994, not to exceed $2,800,000; and

[(E) for fiscal year 1995, not to exceed $2,900,000] *$1,500,000 for fiscal year 1997.*

* * * * * * *

SECTION 3 OF THE SEA GRANT PROGRAM IMPROVEMENT ACT OF 1976

[SEC. 3. SEA GRANT INTERNATIONAL PROGRAM.

[(a) IN GENERAL.—The Under Secretary of Commerce for Oceans and Atmosphere may enter into contracts and make grants under this section to—

[(1) enhance cooperative international research and educational activities on ocean, coastal and Great Lakes resources;

[(2) promote shared marine activities with universities in countries with which the United States has sustained mutual interest in ocean, coastal, and Great Lakes resources;

[(3) encourage technology transfer that enhances wise use of ocean, coastal, and Great Lakes resources in other countries and in the United States;

[(4) promote the exchange among the United States and foreign nations of information and data with respect to the assessment, development, utilization, and conservation of such resources;

[(5) use the national sea grant college program as a resource in other Federal civilian agency international initiatives whose purposes are fundamentally related to research, education, technology transfer and public service programs concerning the

understanding and wise use of ocean, coastal, and Great Lakes resources; and

[(6) enhance regional collaboration between foreign nations and the United States with respect to marine scientific research, including activities which improve understanding of global oceanic and atmospheric processes, undersea minerals resources within the exclusive economic zone and special areas, and productivity and enhancement of living marine resources in—

[(A) the Caribbean and Latin American regions;

[(B) the Pacific Islands region;

[(C) the Arctic and Antartic regions;

[(D) the Atlantic and Pacific Oceans; and

[(E) the Great Lakes.

[(b) ELIGIBILITY, PROCEDURES, AND REQUIREMENTS.—Any sea grant college, sea grant program, or sea grant regional consortium, and any institution of higher education, laboratory, or institute (if the institution, laboratory, or institute is located within a State, as defined in section 203(14) of the National Sea Grant College Program Act (33 U.S.C. 1122(14)), may apply for and receive financial assistance under this section. The Under Secretary shall prescribe rules and regulations, in consultation with the Secretary of State, to carry out this section. Before approving an application for a grant or contract under this section, the Under Secretary shall consult with the Secretary of State. A grant made, or contract entered into, under this section is subject to section 205(d) (2) and (4) of the National Sea Grant College Program Act (33 U.S.C. 1124(d) (2) and (4)) and to any other requirements that the Under Secretary considers necessary and appropriate.]

NOAA FLEET MODERNIZATION ACT

[TITLE VI—NOAA FLEET MODERNIZATION

[SEC. 601. SHORT TITLE.

[This title may be cited as the "NOAA Fleet Modernization Act".

[SEC. 602. DEFINITIONS.

[In this title, the term—

[(1) "NOAA" means the National Oceanic and Atmospheric Administration within the Department of Commerce.

[(2) "NOAA fleet" means the fleet of research vessels owned or operated by NOAA.

[(3) "Plan" means the NOAA Fleet Replacement and Modernization Plan described in section 604.

[(4) "Secretary" means the Secretary of Commerce.

[(5) "UNOLS" means University-National Oceanographic Laboratory System.

[SEC. 603. FLEET REPLACEMENT AND MODERNIZATION PROGRAM.

[The Secretary is authorized to implement, subject to the requirements of this Act, a 15-year program to replace and modernize the NOAA fleet.

[SEC. 604. FLEET REPLACEMENT AND MODERNIZATION PLAN.

[(a) IN GENERAL.—To carry out the program authorized in section 603, the Secretary shall develop and submit to Congress a replacement and modernization Plan for the NOAA fleet covering the years authorized under section 610.

[(b) TIMING.—The Plan required in subsection (a) shall be submitted to Congress within 30 days of the date of enactment of this Act, and updated on an annual basis.

[(c) PLAN ELEMENTS.—The Plan required in subsection (a) shall include the following—

[(1) the number of vessels proposed to be modernized or replaced, the schedule for their modernization or replacement, and anticipated funding requirements;

[(2) the number of vessels proposed to be constructed, leased, or chartered;

[(3) the number of vessels, or days at sea, that can be obtained by using the vessels of the UNOLS;

[(4) the number of vessels that will be made available to NOAA by the Secretary of the Navy, or any other federal official, and the terms and conditions for their availability;

[(5) the proposed acquisition of modern scientific instrumentation for the NOAA fleet, including acoustic systems, data transmission positioning and communication systems, physical, chemical, and meteorological oceanographic systems, and data acquisition and processing systems; and

[(6) the appropriate role of the NOAA Corps in operating and maintaining the NOAA fleet.

[(d) CONTRACTING LIMITATION.—The Secretary may not enter into any contract for the construction, lease, or service life extension of a vessel of the NOAA fleet before the date of the submission to Congress of the Plan required in subsection (a).

[SEC. 605. DESIGN OF NOAA VESSELS.

[(a) DESIGN REQUIREMENT.—Except for the vessel designs identified under subsection (b), the Secretary, working through the Office of the NOAA Corps Operations and the Systems Procurement Office, shall—

[(1) prepare requirements for each class of vessel to be constructed or converted under the Plan; and

[(2) contract competitively from nongovernmental entities with expertise in shipbuilding for vessel design and construction based on the requirements for each class of vessel to be acquired.

[(b) EXCEPTION.—The Secretary shall—

[(1) report to Congress identifying any existing vessel design or design proposal that meets the requirements of the Plan within 30 days after the date of enactment of this Act and shall promptly advise the Congress of any modification of these designs; and

[(2) submit to Congress as part of the annual update of the Plan required in section 604, any subsequent existing vessel design or design proposals that meet the requirements of the Plan.

[SEC. 606. CONTRACT AUTHORITY.

[(a) MULTIYEAR CONTRACTS.—

[(1) IN GENERAL.—Subject to paragraphs (2) and (3), and notwithstanding section 1341 of title 31, United States Code and section 3732 of the Revised Statutes of the United States (41 U.S.C. 11), the Secretary may acquire vessels for the NOAA fleet by purchase, lease, lease-purchase, or otherwise, under one or more multiyear contracts.

[(2) REQUIRED FINDINGS.—The Secretary may not enter into a contract pursuant to this subsection unless the Secretary finds with respect to that contract that—

[(A) there is a reasonable expectation that throughout the contemplated contract period the Secretary will request from Congress funding for the contract at the level required to avoid contract termination; and

[(B) the use of the contract will promote the best interests of the United States by encouraging competition and promoting economic efficiency in the operation of the NOAA fleet.

[(3) REQUIRED CONTRACT PROVISIONS.—The Secretary may not enter into a contract pursuant to this subsection unless the contract includes—

[(A) a provision under which the obligation of the United States to make payments under the contract for any fiscal year is subject to the availability of appropriations provided in advance for those payments;

[(B) a provision that specifies the term of effectiveness of the contract; and

[(C) appropriate provisions under which, in case of any termination of the contract before the end of the term specified pursuant to subparagraph (B), the United States shall only be liable for the lesser of—

[(i) an amount specified in the contract for such a termination; or

[(ii) amounts that—

[(I) were appropriated before the date of the termination for the performance of the contract or for procurement of the type of acquisition covered by the contract; and

[(II) are unobligated on the date of the termination.

[(b) SERVICE CONTRACTS.—Notwithstanding any other provision of law, the Secretary may enter into multiyear contracts for oceanographic research, fisheries research, and mapping and charting services to assist the Secretary in fulfilling NOAA missions. The Secretary may only enter into these contracts if—

[(1) the Secretary finds that it is in the public interest to do so;

[(2) the contract is for not more than 7 years; and

[(3)(A) the cost of the contract is less than the cost (including the cost of operation, maintenance, and personnel) to the NOAA of obtaining those services on NOAA vessels; or

[(B) NOAA vessels are not available or cannot provide those services.

[(c) BONDING AUTHORITY.—Notwithstanding any other law, the Secretary may not require a contractor for the construction, alteration, repair or maintenance of a NOAA vessel to provide a bid bond, payment bond, performance bond, completion bond, or other surety instrument in an amount greater than 20 percent of the value of the base contract quantity (excluding options) unless the Secretary determines that requiring an instrument in that amount will not prevent a responsible bidder or offeror from competing for the award of the contract.

[SEC. 607. RESTRICTION WITH RESPECT TO CERTAIN SHIPYARD SUBSIDIES.

[(a) IN GENERAL.—The Secretary of Commerce may not award a contract for the construction, repair (except emergency repairs), or alteration of any vessel of the National Oceanic and Atmospheric Administration in a shipyard, if that vessel benefits or would benefit from significant subsidies for the construction, repair, or alteration of vessels in that shipyard.

[(b) DEFINITION.—In this section, the term "significant subsidy" includes, but is not limited to, any of the following:

[(1) Officially supported export credits.

[(2) Direct official operating support to the commercial shipbuilding and repair industry, or to a related entity that favors the operation of shipbuilding and repair, including but not limited to—

[(A) grants;

[(B) loans and loan guarantees other than those available on the commercial market;

[(C) forgiveness of debt;

[(D) equity infusions on terms inconsistent with commercially reasonable investment practices; and

[(E) preferential provision of goods and services.

[(3) Direct official support for investment in the commercial shipbuilding and repair industry, or to a related entity that favors the operation of shipbuilding and repair, including but not limited to the kinds of support listed in paragraph (2)(A) through (E), and any restructuring support, except public support for social purposes directly and effectively linked to shipyard closures.

[(4) Assistance in the form of grants, preferential loans, preferential tax treatment, or otherwise, that benefits or is directly related to shipbuilding and repair for purposes of research and development that is not equally open to domestic and foreign enterprises.

[(5) Tax policies and practices that favor the shipbuilding and repair industry, directly or indirectly, such as tax credits, deductions, exemptions, and preferences, including accelerated depreciation, if such benefits are not generally available to persons or firms not engaged in shipbuilding or repair.

[(6) Any official regulation or practice that authorizes or encourages persons or firms engaged in shipbuilding or repair to enter into anticompetitive arrangements.

[(7) Any indirect support directly related, in law or in fact, to shipbuilding and repair at national yards, including any public assistance favoring shipowners with an indirect effect on

shipbuilding or repair activities, and any assistance provided to suppliers of significant inputs to shipbuilding, which results in benefits to domestic shipbuilders.

[(8) Any export subsidy identified in the Illustrative List of Export Subsidies in the Annex to the Agreement on Interpretation and Application of Articles VI, XVI, and XXIII of the General Agreement on Tariffs and Trade or any other export subsidy that may be prohibited as a result of the Uruguay Round of trade negotiations.

[SEC. 608. USE OF VESSELS.

[(a) VESSEL AGREEMENTS.—In implementing the NOAA fleet replacement and modernization program, the Secretary shall use excess capacity of UNOLS vessels where appropriate and may enter into memoranda of agreement with the operators of these vessels to carry out this requirement.

[(b) REPORT TO CONGRESS.—Within one year after the date of enactment of this Act, the Comptroller General of the United States shall provide a report to Congress, in consultation with the Secretary, comparing the cost-efficiency, accounting, and operating practices of the vessels of NOAA, UNOLS, other Federal agencies, and the United States private sector in meeting the missions of NOAA.

[SEC. 609. INTEROPERABILITY.

[The Secretary shall consult with the Oceanographer of the Navy regarding appropriate measures that should be taken, on a reimbursable basis, to ensure that NOAA vessels are interoperable with vessels of the Department of the Navy, including with respect to operation, maintenance, and repair of those vessels.

[SEC. 610. AUTHORIZATION OF APPROPRIATIONS.

[(a) IN GENERAL.—There are authorized to be appropriated to the Secretary for carrying out this title—

[(1) $50,000,000 for fiscal year 1993;

[(2) $100,000,000 for fiscal year 1994; and

[(3) such sums as are necessary for each of the fiscal years 1995, 1996, and 1997.

[(b) LIMITATION ON FLEET MODERNIZATION ACTIVITIES.—All National Oceanic and Atmospheric Administration fleet modernization shipbuilding, and conversion shall be conducted in accordance with this title.]

COAST AND GEODETIC SURVEY COMMISSIONED OFFICERS' ACT OF 1948

AN ACT To provide for the distribution, promotion, separation, and retirement of commissioned officers of the Coast and Geodetic Survey, and for other purposes.

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

[SHORT TITLE

[SECTION 1. That this Act may be cited as the "Coast and Geodetic Survey Commissioned Officers' Act of 1948".

[AUTHORIZED NUMBERS IN GRADES

[SEC. 2. (a) Of the total authorized number of commissioned officers on the active list of the Coast and Geodetic Survey, there are authorized numbers in permanent grade, in relative rank with officers of the Navy, in the proportion of eight in the grade of captain, to fourteen in the grade of commander, to nineteen in the grade of lieutenant commander, to twenty-three in the grade of lieutenant, to eighteen in the grade of lieutenant (junior grade), to eighteen in the grade of ensign.

[(b) Whenever a final fraction occurs in computing the authorized number of officers in any grade, the nearest whole number shall be taken, and if such fraction be one-half the next higher whole number shall be taken: *Provided,* That the total number of officers as authorized by law shall not be increased as the result of the computations prescribed herein, and if necessary the number of officers in the lowest grade shall be reduced accordingly.

[(c) No officer shall be reduced in grade or pay or separated from the active list as the result of any computations made to determine the authorized number of officers in the various grades.

[(d) Nothing in this section shall be construed as requiring the filling of any vacancy or as prohibiting additional numbers in any grade to compensate for vacancies existing in higher grades.

[(e) The total number of officers on active duty as authorized by law may be temporarily exceeded provided that the average number on active duty for the fiscal year shall not exceed the authorized number.

[PROMOTION AND SEPARATION OF OFFICERS

[SEC. 3. Promotion to fill vacancies in all permanent grades above that of lieutenant (junior grade) shall be made by selection from the next lower respective grades upon recommendation of the personnel board hereinafter provided for.

[SEC. 4. Irrespective of any vacancies, any officer in the permanent grade of lieutenant (junior grade) and lieutenant shall be considered by the personnel board for promotion to the grade of lieutenant and lieutenant commander in sufficient time so that, if found fully qualified, such officer may be promoted to and appointed in such grade upon completion of seven and fourteen years of service, respectively. All promotions under this section shall be made on the date on which the required service is completed, and the authorized number of officers in the grade of lieutenant and lieutenant commander shall be temporarily increased, if necessary, to authorize such appointments: *Provided,* That an officer found not fully qualified in accordance with this section may be promoted on such later date on which he may be found fully qualified.

[SEC. 5. Irrespective of any vacancies, any officer in the permanent grade of lieutenant commander who has completed twenty-one years of service and any officer in the permanent grade of commander who has completed thirty years of service may be considered by the personnel board at any time for promotion to the grade of commander and captain, respectively. If selected, he may be promoted at any time and the authorized number of officers in the

grade of commander and captain shall be temporarily increased, if necessary, to authorize such appointments.

[SEC. 6. (a) Officers in the permanent grade of ensign shall be promoted to and appointed in the grade of lieutenant (junior grade) on completion of three years of service, and the authorized number of officers in the grade of lieutenant (junior grade) shall from time to time be temporarily increased as necessary to authorize such appointments.

[(b) Ensigns who are found not fully qualified at any time shall have their commissions revoked and be separated from the commissioned service.

[SEC. 7. Each officer shall be assumed to have, for promotion purposes, at least the same length of service as any officer below him on the lineal list, except that an officer who has lost numbers shall be assumed to have for promotion purposes no greater service than the officer next above him in his new position on the lineal list.

[SEC. 8. (a) As recommended by the personnel board—

[(1) an officer in the permanent grade of captain or commander may be transferred to the retired list; and

[(2) an officer in the permanent grade of lieutenant commander, lieutenant, or lieutenant (junior grade) who is not qualified for retirement may be separated from the service.

[(b) In any fiscal year, the total number of officers selected for retirement or separation under subsection (a) plus the number of officers retired for age may not exceed the whole number nearest four percent of the total number of officers authorized to be on the active list, except as otherwise provided by law.

[(c) Any retirement or separation under subsection (a) shall take effect on the first day of the sixth month beginning after the date on which the Secretary of Commerce approves the retirement or separation, except that if the officer concerned requests earlier retirement or separation, the date shall be as determined by the Secretary.

[SEC. 9. (a) An officer who is separated under section 8 and who has completed more than three years of continuous active service immediately before that separation is entitled to separation pay computed under subsection (b) unless the Secretary of Commerce determines that the conditions under which the officer is separated do not warrant payment of that pay.

[(b)(1) In the case of an officer who has completed five or more years of continuing active service immediately before that separation, the amount of separation pay which may be paid to the officer under this section is 10 percent of the product of (A) the years of active service creditable to the officer, and (B) twelve times the monthly basic pay to which the officer was entitled at the time of separation, or $30,000, whichever is less.

[(2) In the case of an officer who has completed three but fewer than five years of continuous active service immediately before that separation, the amount of separation pay which may be paid to the officer under this section is one-half of the amount computed under paragraph (1), but in no event more than $15,000.

[(c) In determining an officer's years of active service for the purpose of computing separation pay under this section, each full

month of service that is in addition to the number of full years of service creditable to the officer is counted as one-twelfth of a year and any remaining fractional part of a month is disregarded.

[(d)(1) A period for which an officer has previously received separation pay, severance pay, or readjustment pay under any other provision of law based on service in a uniformed service may not be included in determining the years of creditable service that may be counted in computing the separation pay of the officer under this section.

[(2) The total amount that an officer may receive in separation pay under this section and separation pay, severance pay, and readjustment pay under any other provision of law based on service in a uniformed service may not exceed $30,000.

[(e)(1) An officer who has received separation pay under this section, or separation pay, severance pay, or readjustment pay under any other provision of law, based on service in a uniformed service and who later qualifies for retired pay under this Act shall have deducted from each payment of retired pay so much of that pay as is based on the service for which the officer received that separation pay, severance pay, or readjustment pay until the total amount deducted is equal to the total amount of separation pay, severance pay, and readjustment pay received.

[(2) An officer who has received separation pay under this section may not be deprived, by reason of receipt of that pay, of any disability compensation to which the officer is entitled under the laws administered by the Secretary of Veterans Affairs, but there shall be deducted from that disability compensation an amount equal to the total amount of separation pay received. Notwithstanding the preceding sentence, no deduction may be made from disability compensation for the amount of separation pay received because of an earlier discharge, separation, or release from a period of active duty if the disability which is the basis for that disability compensation was incurred or aggravated during a later period of active duty.

[SEC. 10. (a) Appointments in and promotions to all permanent grades shall be made by the President, by and with the advice and consent of the Senate.

[(b) In time of emergency declared by the President or by the Congress, and in time of war, the President is authorized, in his discretion, to suspend the operation of all or any part or parts of the several provisions of law pertaining to promotion.

[SEC. 11. Nothing in this Act shall be construed to modify the provisions of existing law relating to examination of officers for promotion, and no officer shall be promoted until he shall have passed the prescribed examinations.

[SEC. 12. (a) Temporary appointment in the grade of ensign may be made by the President alone, provided such temporary appointment will be terminated at the close of the next regular session of the Congress unless confirmed by the Senate.

[(b) Officers in the permanent grade of ensign may be temporarily promoted to and appointed in the grade of lieutenant junior grade by the President alone whenever vacancies exist in higher grades.

[(c) When determined by the Secretary of Commerce to be in the best interest of the service, officers in any permanent grade may be temporarily promoted one grade by the President alone. Any such temporary promotion terminates upon the transfer of the officer to a new assignment.

[RETIREMENT OF OFFICERS

[SEC. 13. (a) When any commissioned officer serving in a rank below that of rear admiral has attained the age of sixty years, he shall be placed on the retired list: *Provided,* That this subsection shall not become effective until a date six months subsequent to the enactment of this Act, and until such effective date the retirement age for officers serving in a rank below that of rear admiral shall be sixty-two years.

[(b) When any officer serving in a rank above that of captain has attained the age of sixty-two years, he shall be placed on the retired list: *Provided,* That the President may, in his discretion, defer placing any such officer on the retired list for the length of time he deems advisable but not later than the date upon which such officer attains the age of sixty-four years.

[SEC. 14. When any commissioned officer has completed twenty years of service, he may at any time thereafter, upon his own application, in the discretion of the President, be placed on the retired list.

[SEC. 16. (a) Each commissioned officer on the retired list who first became a member of a uniformed service (as defined in section 101 of title 10, United States Code) before September 8, 1980, shall receive retired pay at the rate determined by multiplying—

[(1) the retired pay base determined under section 1406(g) of title 10, United States Code; by

[(2) 2½ percent of the number of years of service that may be credited to the officer under section 1405 of such title as if the officer's service were service as a member of the Armed Forces.

The retired pay so computed may not exceed 75 percent of the retired pay base.

[(b) Each commissioned officer on the retired list who first became a member of a uniformed service (as defined in section 101 of title 10, United States Code) on or after September 8, 1980, shall receive retired pay at the rate determined by multiplying—

[(1) the retired pay base determined under section 1407 of title 10, United States Code; by

[(2) the retired pay multiplier determined under section 1409 of such title for the number of years of service that may be credited to the officer under section 1405 of such title as if the officer's service were service as a member of the Armed Forces.

[(c)(1) In computing the number of years of service of an officer for the purposes of subsection (a)—

[(A) each full month of service that is in addition to the number of full years of service creditable to the officer shall be credited as 1/12 of a year; and

[(B) any remaining fractional part of a month shall be disregarded.

[(2) Retired pay computed under this section, if not a multiple of $1, shall be rounded to the next lower multiple of $1.

[SEC. 17. (a) Each commissioned officer heretofore or hereafter retired pursuant to any provision of law shall be placed on the retired list with the highest rank, permanent or temporary, held by him while on active duty, if his performance of duty, in the case of temporary rank, has been satisfactory as determined by the Secretary of the department or departments under whose jurisdiction the officer served, and shall receive retired pay based on such higher rank: *Provided,* That for the purposes of this section the words "temporary rank" shall mean temporary rank held prior to June 30, 1946.

[(b) Officers on the retired list returned to an inactive status with higher rank pursuant to subsection (a) of this section shall receive retired pay based on such higher rank.

[SEC. 18. Nothing in this Act shall prevent any officer from being placed on the retired list with the highest rank and with the highest retired pay to which he might be entitled under other provision of law.

[PERSONNEL BOARD

[SEC. 19. At least once a year and at such other times as may be necessary, the Secretary of Commerce shall appoint a personnel board consisting of not less than five officers not below the permanent rank of commander on the active list, to recommend such changes in the lineal list as the board may determine, and to make selections and recommendations for the promotion, separation, and retirement of officers as herein prescribed: *Provided,* That in case any recommendation by the board is not acceptable to the Secretary of Commerce or to the President, the board shall make such further recommendations as shall be acceptable.

[AMENDMENTS TO AND REPEAL OF APPOINTMENT, PROMOTION, AND RETIREMENT LAWS

[SEC. 21. (a) Section 5 of the Act of February 16, 1929 (45 Stat. 1186), as amended by the Act of March 18, 1936 (ch. 147, 49 Stat. 1164), is hereby further amended by deleting the word "not" in the third line.

[(b) Section 8 of the Act of January 19, 1942 (59 Stat. 8), is hereby amended by deleting the word "not" in the fourth line, by changing the period at the end of the section to a colon, and by adding the words "*Provided further,* That any officer, upon expiration of his appointment as Director or Assistant Director, shall, unless reappointed, revert to the grade and number that he would have occupied had he not served as Director or Assistant Director. Such officer shall be an extra number in his grade and the authorized number of ensigns shall be decreased accordingly."

[SEC. 22. (a) Sections 1, 2 (except the second proviso of section 2(b)), 3, 4, 5, and 6 of the Act of January 19, 1942 (59 Stat. 8), are hereby repealed.

[(b) The word "physicial" in the first line of section 7 of the said Act of January 19, 1942, is hereby amended to read "physical".

[SEC. 23. (a) Original appointments may be made in grades up to and including lieutenant after passage of a mental and physical

examination given in accordance with regulations prescribed by the Secretary of Commerce: *Provided,* That the President, under such regulations as he may prescribe, may revoke the commission of any officer appointed under this section during his first three years of service if he is found not qualified for the service.

[(b) Any person appointed under authority of this section shall be placed on the lineal list of active duty officers in a position commensurate with his age, education, and experience in accordance with regulations prescribed by the Secretary of Commerce.

[(c)(1) For the purposes of basic pay any person appointed under this section to the grade of lieutenant or lieutenant (junior grade) shall be considered as having, on date of appointment, three years or one and one-half years service respectively.

[(2) If a person appointed under this section is entitled to credit for the purpose of basic pay under other provision of law which would exceed that authorized by subsection (c)(1) he shall be credited with that service in lieu of the credit provided by subsection (c)(1).

[SEC. 24. (a) The Secretary may designate positions in the Administration as being positions of importance and responsibility for which it is appropriate that commissioned officers of the Administration, if serving in those positions, serve in the grade of vice admiral, rear admiral, or rear admiral (lower half) as designated by the Secretary for each position, and may assign officers to those positions. An officer assigned to any position under this section has the grade designated for that position if appointed to that grade by the President, by and with the advice and consent of the Senate.

[(b) the number of officers serving on active duty under appointments under this section may not exceed—

[(1) one in the grade of vice admiral;

[(2) three in the grade of rear admiral; and

[(3) three in the grade of rear admiral (lower half).

[(c) An officer appointed to a grade under this section, while serving in that grade, shall have the pay and allowances of the grade to which appointed.

[(d) An appointment of an officer under this section—

[(1) does not vacate the permanent grade held by the officer; and

[(2) creates a vacancy on the active list.

[(e) the provisions of section 2(g) of Reorganization Plan Numbered 4 of 1970 (84 Stat. 2090, 5 U.S.C. App.) apply to an officer who serves in a grade above captain under an appointment under this section in the same manner as if the officer served in that grade under section 2(d) or 2(f) of that Reorganization Plan.]

ACT OF FEBRUARY 16, 1929

CHAP. 22I. An Act To amend the Act entitled "An Act to readjust the pay and allowances of the commissioned and enlisted personnel of the Army, Navy, Marine Corps, Coast Guard, Coast and Geodetic Survey, and Public Health Service," approved June 10, 1922, as amended.

* * * * * * *

[SEC. 5. That the Director of the Coast and Geodetic Survey shall be appointed and hold office as now authorized by law; his ap-

pointment shall create a vacancy, and while holding said office he shall have the rank, pay, and allowances of a Chief of Bureau of the Navy Department.]

ACT OF JANUARY 19, 1942

AN ACT To regulate the distribution and promotion of commissioned officers of the Coast and Geodetic Survey, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, [That the total number of commissioned officers on the active list of the Coast and Geodetic Survey shall be distributed in rank relative with officers of the Navy in the proportion of five in the grade of captain to eight in the grade of commander, to eighty-seven in the grades of lieutenant commander, lieutenant, lieutenant (junior grade) and ensign, inclusive: *Provided,* That the number of officers in the grade of lieutenant commander shall not exceed 35 per centum of the total authorized number of commissioned officers on the active list.

[PROMOTION OF OFFICERS

[SEC. 2. (a) Promotions to the grades of captain and commander shall be made as vacancies occur and shall be by selection from the next lower respective grades upon recommendation of the Personnel Board hereinafter authorized.

[(b) Except as otherwise provided in this Act, lieutenants, lieutenants (junior grade), and ensigns shall be promoted to the respective grades of lieutenant commander, lieutenant, and lieutenant (junior grade) in the order in which the names appear on the current lineal list hereinafter authorized as the officers become credited with seventeen years', ten years', and three years' service, respectively: *Provided,* That lieutenants with not less than fourteen years' accredited service and lieutenants (junior grade) with not less than seven years' accredited service may be promoted to the grades of lieutenant commander and lieutenant, respectively, at any time in such numbers as will not cause the resulting number of officers in each of the grades of lieutenant commander and lieutenant to exceed 28 per centum of the total authorized force of commissioned officers on the active list: *Provided further,* That for purposes of pay, longevity pay, allowances, promotion, or retirement, which are now or may hereafter be authorized for officers appointed after June 30, 1992, there shall be counted in addition to active commissioned service, as deck officer and junior engineer in excess of one year.

[(c) All promotions, when made, shall be effective from the date of the respective vacancies, and promotions to all grades shall be made by the President, by and with the advice and consent of the Senate.

[(d) Each officer shall be assumed to have, for promotion purposes, at least the same length of service as any officer junior to him on the lineal list hereinafter authorized, except that an officer who has lost numbers on the lineal list shall be assumed to have for promotion purposes no greater service than the officer next above him in his new position on the lineal list.

[(e) Whenever a final fraction occurs in computing the authorized number of officers of any grade, the nearest whole number shall be regarded as the authorized number: *Provided,* That the total number of officers as authorized by law shall not be increased as a result of the computations prescribed herein, and if necessary the number of officers in the lowest grade shall be reduced accordingly: *Provided further,* That no officer shall be reduced in grade or pay or separated from the active list as the result of any computations made to determine the authorized number of officers in the various grades.

[PERSONNEL BOARD

[SEC. 3. At least once a year and at such other times as may be necessary, the Secretary of Commerce shall appoint and convene a Personnel Board consisting of not less than five officers not below the rank of commander on the active list of the Coast and Geodetic Survey, to make the computations prescribed herein, to prepare and maintain a lineal list on which the names of all officers on the active list shall be arranged in such order as the board may determine, and to make selections and recommendations for the promotion and retirement of officers as herein prescribed.

[SEC. 4. Each report of the Personnel Board shall be submitted to the President for approval or disapproval: *Provided*, That in case any recommendation by the board is not acceptable to the President, the board shall be so informed and shall make such further recommendations as shall be acceptable to the President and, if necessary, the board shall be reconvened for this purpose: *Provided further*, That when the report of the board shall have been approved, the recommendations therein shall be carried out in accordance with the provisions of this Act.

[RETIREMENT OF OFFICERS

[SEC. 5. The President may transfer to the retired list from the grades of captain, commander, lieutenant commander, and lieutenant such officers as have been recommended for retirement by the Personnel Board: *Provided*, That the total number of officers so retired in any fiscal year shall not exceed the whole number nearest 1 per centum of the total authorized number of commissioned officers on the active list, and, except as otherwise required by law, the number of officers so retired plus the number of officers retired for age in any fiscal year shall not exceed 3 per centum of the total authorized number of commissioned officers on the active list: *Provided further*, That all transfers to the retired list pursuant to this Act shall become effective on the next ensuing July 1 and the resulting vacancies may be filled as of that date.

[SEC. 6. Officers retired pursuant to section 5 of this Act shall receive pay at the rate of 2½ per centum of their active-duty pay at the time of retirement multiplied by the number of years of service for which entitled to credit in the computation of their pay on the active list, not to exceed a total of 75 per centum of said active-duty pay: *Provided*, That a fractional year of six months or more shall be considered a full year in computing the number of years' service by which the rate of 2½ per centum is multiplied.

[SEC. 7. Should an officer fail in his physical examination for promotion and be found incapacitated for service by reason of physical disability contracted in line of duty, he shall be retired with the rank to which he would otherwise be entitled to be promoted, with retired pay at the rate of 75 per centum of the active-duty pay of that grade.

[MISCELLANEOUS PROVISIONS

[SEC. 8. The President is authorized to appoint, by and with the advice and consent of the Senate, an officer on the active list of the Coast and Geodetic Survey not below the rank of commander to serve as Assistant Director; his appointment shall not create a vacancy and while holding said office he shall have the rank, pay, and allowances of rear admiral (lower half): *Provided*, That any officer who may be retired while serving as Director or Assistant Director, or who has or shall have served four years as Director or Assistant Director and is retired after completion of such service while serving in a lower rank or grade, shall be retired with the rank, pay, and allowances authorized by law for the highest grade or rank held by him as Director or Assistant Director.

[SEC. 9. The provisions of sections 1 to 5, inclusive, of the Act of April 20, 1940 (54 Stat. 144), relating to the burial expenses of Navy personnel, and the provisions of the Act of June 4, 1920 (41 Stat. 824), as amended by the Act of May 22, 1928 (45 Stat. 710), relating to the payment of a death gratuity to dependents of commissioned officers and other personnel of the Navy or Marine Corps, shall apply to commissioned officers of the Coast and Geodetic Survey, except that the duties and obligations imposed in said Acts upon the Secretary of the Navy are hereby imposed for the purposes of this Act upon the Secretary of Commerce who shall cause the necessary payments to be made from funds appropriated for the Coast and Geodetic Survey: *Provided*, That the provisions of this section shall be effective from December 8, 1941.

[SEC. 10. Commissioned officers, ships' officers, and members of the crews of vessels of the Coast and Geodetic Survey shall be permitted to purchase commissary and quartermaster supplies as far as available from the Army, Navy, or Marine Corps at the prices charged officers and enlisted men of those services.

[SEC. 11. All laws or parts of laws inconsistent with the provisions of this Act are hereby repealed, and the provisions of this Act shall be in effect in lieu thereof.]

SECTION 9 OF PUBLIC LAW 87–649

AN ACT To revise, codify, and enact title 37 of the United States Code, entitled "Pay and Allowances of the Uniformed Services".

* * * * * * *

[AMENDMENTS TO CERTAIN LAWS APPLICABLE TO COAST AND GEODETIC SURVEY

[SEC. 9. (a) Section 3(a) of the Act of August 10, 1956, ch. 1041, as amended (33 U.S.C. 857a(a)), is amended by adding the following new clause at the end thereof:

[“(10) Chapter 40. Leave.”

[(b) The Act of June 3, 1948, ch. 390, as amended, is further amended as follows:

[(1) Section 9 (33 U.S.C. 853h) is amended by striking out the words “active-duty pay with longevity credit” wherever they appear and inserting the words “basic pay” in place thereof.

[(2) Section 16(a) (33 U.S.C. 853*o*(a)) is amended by striking out the words “active-duty pay with longevity credit” wherever they appear and inserting the words “basic pay” in place thereof.

[(c) Active service in the Coast and Geodetic Survey as a deck officer or junior engineer and active service counted on June 30, 1992, for longevity pay, shall be credited to commissioned officers as active commissioned service for purposes of retirement and retirement pay.]

ACT OF MAY 22, 1917

CHAP. 20.—An Act To temporarily increase the commissioned and warrant and enlisted strength of the Navy and Marine Corps, and for other purposes.

* * * * * * *

[SEC. 16. The President is authorized, whenever in his judgment a sufficient national emergency exists, to transfer to the service and jurisdiction of a military department such vessels, equipment, stations, and commissioned officers of the Environmental Science Services Administration as he may deem to the best interest of the country, and after such transfer all expenses connected therewith shall be defrayed out of the appropriations for the department to which transfer is made: *Provided*, That such vessels, equipment, stations, and commissioned officers shall be returned to the Environmental Science Services Administration when such national emergency ceases, in the opinion of the President, and nothing in this section shall be construed as transferring the Environmental Science Services Administration or any of its functions from the Department of Commerce except in time of national emergency and to the extent herein provided: *Provided further*, That any of the commissioned officers of the Environmental Science Services Administration who may be transferred as provided in this section, shall, while under the jurisdiction of a military department, have proper military status and shall be subject to the laws, regulations, and orders for the government of the Army, Navy, or Air Force, as the case may be, insofar as the same may be applicable to persons whose retention permanently in the military service of the United States is not contemplated by law.

[Nothing in this Act shall reduce the total amount of pay and allowances they were receiving at the time of transfer. While actually employed in active service under direct orders of the War Department or of the Navy Department members of the Coast and Geodetic Survey shall receive the benefit of all provisions of laws relating to disability incurred in line of duty or loss of life.

[When serving with the Army, Navy, or Air Force, commissioned officers of the Coast and Geodetic Survey shall rank with and after

officers of corresponding grade in the Army, Navy, or Air Force of the same length of service in grade.

[And nothing in this Act shall be construed to affect or alter their rates of pay and allowances when not assigned to military duty as hereinbefore mentioned.

[The Secretary of Defense and the Secretary of Commerce shall jointly prescribe regulations governing the duties to be performed by the Environmental Science Services Administration in time of war, and for the cooperation of that service with the military departments in time of peace in preparation for its duties in war, which regulations shall not be effective unless approved by each of those Secretaries, and included therein may be rules and regulations for making reports and communications between a military department and the Environmental Science Services Administration.]

ACT OF DECEMBER 3, 1942

AN ACT Authorizing the temporary appointment or advancement of commissioned officers of the Coast and Geodetic Survey in time of war or national emergency, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, [Personnel of the Environmental Science Services Administration shall be subject in like manner and to the same extent as personnel of the Navy to all laws authorizing temporary appointment or advancement of commissioned officers in time of war or national emergency subject to the following limitations:

[(1) Commissioned officers in the service of a military department, under the provisions of section 16 of the Act of May 22, 1917 (40 Stat. 87), as amended, may, upon the recommendation of the Secretary of the military department concerned, be temporarily promoted to higher ranks or grades.

[(2) Commissioned officers in the service of the Environmental Science Services Administration may be temporarily promoted to fill vacancies in ranks and grades caused by the transfer of commissioned officers to the service and jurisdiction of a military department under the provisions of section 16 of the Act of May 22, 1917 (40 Stat. 87), as amended.

[(3) Temporary appointments may be made in all grades to which original appointments in the Environmental Science Service Administration are authorized: *Provided,* That the number of officers holding temporary appointments shall not exceed the number of officers transferred to a military department under the provisions of section 16 of the Act of May 22, 1917 (40 Stat. 87), as amended.

[SEC. 3. Any commissioned officer of the Coast and Geodetic Survey promoted to a higher grade at any time after December 7, 1941, shall be deemed for all purposes to have accepted his promotion to higher grade upon the date such promotion is made by the President unless he shall expressly decline such promotion, and shall receive the pay and allowances of the higher grade from such date unless he is entitled under some other provision of law to receive the pay and allowances of the higher grade from an earlier

date. No such officer who shall have subscribed to the oath of office required by section 1757, Revised Statutes, shall be required to renew such oath or to take a new oath upon his promotion to a higher grade, if his service after the taking of such an oath shall have been continuous.]

PUBLIC LAW 91–621

AN ACT To clarify the status and benefits of commissioned officers of the National Oceanic and Atmospheric Administration, 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. Definitions listed in section 101 of title 10, United States Code, apply to this Act, except as noted below:

[(1) "active duty" means full-time duty in the active service of a uniformed service;

[(2) "Administration" means the National Oceanic and Atmospheric Administration;

[(3) "grade" means a step or degree, in a graduated scale of office or rank, that is established and designated as a grade by law or regulation;

[(4) "officer" means a commissioned officer;

[(5) "Secretary" means the Secretary of Commerce;

[(6) "Secretary concerned" as defined in section 101 of title 37, United States Code.

[(7) "uniformed services" is defined in section 101 of title 37, United States Code.

[SEC. 2. Each officer retired pursuant to any provision of law shall be placed on the retired list with the highest grade satisfactorily held by him while on active duty including active duty pursuant to recall, under permanent or termpoary appointment, and he shall receive retired pay based on such highest grade: *Provided,* That his performance of duty in such highest grade has been satisfactory, as determined by the Secretary of the department or departments under whose jurisdiction the officer served, and unless retired for disability, his length of service in such highest grade is no less than that required by the Secretary of officers retiring under permanent appointment in that grade.

[SEC. 3. (a) Active service of officers of the Administration shall be deemed to be active military service in the armed forces of the United States for the purposes of all rights, privileges, immunities, and benefits now or hereafter provided by—

[(1) laws administered by the Secretary of Veterans Affairs;

[(2) laws administered by the Interstate Commerce Commission; and

[(3) the Soldiers' and Sailors' Civil Relief Act of 1940, as amended.

In the administration of these laws and regulations, with respect to the National Oceanic and Atmospheric Administration, the authority vested in the Secretary of Defense, the Secretary of the Army, the Secretary of the Navy, and the Secretary of the Air Force and their respective departments shall be exercised by the Secretary of Commerce.

[(b) The Secretary may provide medical and dental care, including care in private facilities, for personnel of the Administration entitled to that care by law or regulation.

[SEC. 4. (a) Commissioned officers, ships' officers, and members of crews of vessels of the Administration shall be permitted to purchase commissary and quartermaster supplies as far as available from the armed forces at the prices charged officers and enlisted men of those services.

[(b) The Secretary may purchase ration supplies for messes, stores, uniforms, accouterments, and related equipment for sale aboard ship and shore stations of the Administration to members of the uniformed services and to personnel assigned to such ships or shore stations. Sales shall be in accordance with regulations prescribed by the Secretary, and proceeds therefrom shall, as far as is practicable, fully reimburse the appropriations charged without regard to fiscal year.

[(c) Rights extended to members of the uniformed services in this section are extended to their widows and to such others as are designated by the Secretary concerned.

[SEC. 5. (a) All statutes that applied to commissioned officers of the Coast and Geodetic Survey on July 12, 1965, shall apply to officers of the Environmental Science Services Administration on that date and subsequent thereto, unless amended or repealed, and service as a commissioned officer in the Coast and Geodetic Survey shall constitute service as a commissioned officer in the Environmental Science Services Administration.

[(b) All statutes that applied to commissioned officers of the Coast and Geodetic Survey on July 12, 1965, and to commissioned officers of the Environmental Science Services Administration subsequent to that date shall apply to officers of the National Oceanic and Atmospheric Administration on October 3, 1970, and subsequent thereto, unless amended or repealed, and service as a commissioned officer in the Coast and Geodetic Survey or the Environmental Science Services Administration shall constitute service as a commissioned officer in the National Oceanic and Atmospheric Administration.

[(c) The enactment of this Act does not increase or decrease the pay or allowances of any person.

[(d) A reference to a law replaced by this Act, including a reference in a regulation, order, or other law, is deemed to refer to the corresponding provisions enacted by this Act.

[(e) An order, rule, or regulation in effect under a law replaced by this Act continues in effect under the corresponding provisions enacted by this Act until repealed, amended, or superseded.

[(f) An inference of a legislative construction is not to be drawn by reason of the location in the United States Code of a provision enacted by this Act or by reason of the caption or catchline thereof.

[(g) If any provision of this Act or the application thereof to any person or circumstances is held invalid, the remainder of this Act and the application of such provision to other persons or circumstances shall not be affected thereby.]

ACT OF AUGUST 10, 1956

AN ACT To revise, codify, and enact into law, title 10 of the United States Code, entitled "Armed Forces", and title 32 of the United States Code, entitled "National Guard".

* * * * * * *

[PARTS OF TITLE 10 ADOPTED FOR COAST AND GEODETIC SURVEY

[SEC. 3. (a) The rules of law that apply to the Armed Forces under the following provisions of title 10, Armed Forces, United States Code, as those provisions are in effect from time to time, apply also to the commissioned officer corps of the National Oceanic and Atmospheric Administration:

[(1) Section 1036, Escorts for dependents of members: transportation and travel allowances.

[(2) Chapter 61, Retirement or Separation for Physical Disability.

[(3) Chapter 69, Retired Grade, except sections *1370,* 1374, 1375, and 1387(a).

[(4) Chapter 71, Computation of Retired Pay, except formula No. 3 of section 1401.

[(5) Chapter 73, Retired Serviceman's Family Protection Plan; Survivor Benefit Plan.

[(6) Chapter 75, Death Benefits.

[(7) Section 2771, Final settlement of accounts: deceased members.

[(8) Sections 2731, 2732, and 2735, property loss incident to service.

[(9) Such other provisions of subtitle A as may be adopted for applicability to the commissioned officer corps of the National Oceanic and Atmospheric Administration by any other provision of law.

[(10) Chapter 40. Leave.

[(11) Section 2634, Motor vehicles: for members on permanent change of station.

[(12) Section 1035, Deposits of Savings.

[(13) Section 716, Commissioned officers: transfers among the Armed Forces, the National Oceanic and Atmospheric Administration, and the Public Health Service.

[(14) Section 7572(b), Quarters: accommodations in place of for members on sea duty.

[(15) Section 1174a, special separation benefits (except that benefits under subsection (b)(2)(B) of such section are subject to the availability of appropriations for such purpose and are provided at the discretion of the Secretary of Commerce).

[(b) The authority vested by title 10, United States Code, in the "military departments" Secretary concerned", or "the Secretary of Defense" with respect to the provisions of law referred to in subsection (a) shall be exercised, with respect to the commissioned officer corps of the National Oceanic and Atmospheric Administration, by the Secretary of Commerce or his designee.]

ACT OF MAY 18, 1920

CHAP. 190.—An Act To increase the efficiency of the commissioned and enlisted personnel of the Army, Navy, Marine Corps, Coast Guard, Coast and Geodetic Survey, and Public Health Service.

* * * * * * *

[SEC. 11. That in lieu of compensation now prescribed by law, commissioned officers of the Coast and Geodetic Survey shall receive the same pay and allowances as now are or hereafter may be prescribed for officers of the Navy with whom they hold relative rank as prescribed in the Act of May 22, 1917, entitled "An Act to temporarily increase the commissioned and warrant and enlisted strength of the Navy and Marine Corps, and for other purposes," including longevity; and all laws relating to the retirement of commissioned officers of the Navy shall hereafter apply to commissioned officers of the Coast and Geodetic Survey: *Provided,* That hereafter longevity pay for officers in the Army, Navy, Marine Corps, Coast Guard, Public Health Service, and Coast and Geodetic Survey shall be based on the total of all service in any or all of said services.]

ACT OF JULY 22, 1947

AN ACT To provide basic authority for the performance of certain functions and activities of the Coast and Geodetic Survey, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, [That the Coast and Geodetic Survey is hereby authorized to provide, from appropriations now or hereafter made available to the Survey, for—

[(a) Transportation (including packing, unpacking, crating, and uncrating) of personal and household effects of commissioned officers who die on active duty to the official residence of record for such officers, or, upon application by their dependents, to such other locations as may be determined by the Director of the Coast and Geodetic Survey or by such person as he may designate.

[(b) Reimbursement, under regulations prescribed by the Secretary, of commissioned officers for food, clothing, medicines, and other supplies furnished by them for the temporary relief of distressed persons in remote localities and to shipwrecked persons temporarily provided for by them.

[SEC. 2. The Secretary of Commerce is hereby authorized to pay extra compensation to members of crews of vessels when assigned duties as instrument observer or recorder, and to employees of other Federal agencies while observing tides or currents, or tending seismographs or magnetographs, at such rates as may be specified from time to time by him and without regard to section 301 of the Dual Compensation Act.]

ACT OF AUGUST 3, 1956

AN ACT To authorize officers of the Coast and Geodetic Survey to act as notaries in places outside the United States.

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

where the Coast and Geodetic Survey is serving which are not within the jurisdiction of any one of the States of the continental United States, excluding Alaska commanding officers of Coast and Geodetic Survey vessels, and such other officers of the Coast and Geodetic Survey as the Secretary of Commerce may designate, may exercise the general powers of the notary public in the administration of oaths for the execution, acknowledgment, and attestation of instruments and papers, and the performance of all other notarial acts. The powers hereby conferred shall be limited to acts performed in behalf of the personnel of the Coast and Geodetic Survey or in connection with the proper execution of the functions of that agency.

[SEC. 2. No fee of any kind shall be paid to any officer for the performance of any notarial act herein authorized. The signature without seal together with indication of grade of any officer performing any notarial act shall be prima facie evidence of his authority.]

ACT OF OCTOBER 1, 1890

CHAP. 1266.—An act to increase the efficiency and reduce the expenses of the Signal Corps of the Army, and to transfer the Weather Service to the Department of Agriculture.

* * * * * * *

[SEC. 3. That the Chief of the Weather Bureau, under the direction of the Secretary of Agriculture, on and after July first, eighteen hundred and ninety-one, shall have charge of the forecasting of weather, the issue of storm warnings the display of weather and flood signals for the benefit of agriculture, commerce, and navigation, the gauging and reporting of rivers, the maintenance and operation of sea-coast telegraph lines and the collection and transmission of marine intelligence for the benefit of commerce and navigation, the reporting of temperature and rain-fall conditions for the cotton interests, the display of frost and cold-wave signals, the distribution of meteorological information in the interests of agriculture and commerce, and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States, or as are essential for the proper execution of the foregoing duties.]

* * * * * * *

SEC. 9. That on and after July first, eighteen hundred and ninety-one, the appropriations for the support of the Signal Corps of the Army shall be made with those of other staff corps of the Army, and the appropriations for the support of the Weather Bureau shall be made with those of the other bureaus of the Department of Agriculture[, and it shall be the duty of the Secretary of Agriculture to prepare future estimates for the Weather Bureau which shall be hereafter specially developed and extended in the interest of agriculture.].

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SECTION 12 OF THE EARTHQUAKE HAZARDS REDUCTION ACT OF 1977

SEC. 12. AUTHORIZATION OF APPROPRIATIONS.

(a)(1) * * *

* * * * * * *

(7) There are authorized to be appropriated to the Director of the Agency, to carry out this Act, $5,778,000 for the fiscal year ending September 30, 1988, $5,788,000 for the fiscal year ending September 30, 1989, $8,798,000 for the fiscal year ending September 30, 1990, $14,750,000 for the fiscal year ending September 30, 1991, $19,000,000 for the fiscal year ending September 30, 1992, $22,000,000 for the fiscal year ending September 30, 1993, $25,000,000 for the fiscal year ending September 30, 1995, [and $25,750,000 for the fiscal year ending September 30, 1996] *$25,750,000 for the fiscal year ending September 30, 1996, and $18,825,000 for the fiscal year ending September 30, 1997*.

(b) GEOLOGICAL SURVEY.—There are authorized to be appropriated to the Secretary of the Interior for purposes for carrying out, through the Director of the United States Geological Survey, the responsibilities that may be assigned to the Director under this Act not to exceed $27,500,000 for the fiscal year ending September 30, 1978; not to exceed $35,000,000 for the fiscal year ending September 30, 1979; not to exceed $40,000,000 for the fiscal year ending September 30, 1980; $32,484,000 for the fiscal year ending September 30, 1981; $34,425,000 for the fiscal year ending September 30, 1982; $31,843,000 for the fiscal year ending September 30, 1983; $35,524,000 for the fiscal year ending September 30, 1984; $37,300,200 for the fiscal year ending September 30, 1985 $35,578,000 for the fiscal year ending September 30, 1986; $37,179,000 for the fiscal year ending September 30, 1987; $38,540,000 for the fiscal year ending September 30, 1988; $41,819,000 for the fiscal year ending September 30, 1989; $55,283,000 for the fiscal year ending September 30, 1990, of which $8,000,000 shall be for earthquake investigations under section 11; $50,000,000 for the fiscal year ending September 30, 1991; $54,500,000 for the fiscal year ending September 30, 1992; $62,500,000 for the fiscal year ending September 30, 1993; $49,200,000 for the fiscal year ending September 30, 1995; [and $50,676,000 for the fiscal year ending September 30, 1996] *$50,676,000 for the fiscal year ending September 30, 1996, and $46,130,000 for the fiscal year ending September 30, 1997*.

(c) NATIONAL SCIENCE FOUNDATION.—To enable the Foundation to carry out responsibilities that may be assigned to it under this Act, there are authorized to be appropriated to the Foundation not to exceed $27,500,000 for the fiscal year ending September 30, 1978; not to exceed $35,000,000 for the fiscal year ending September 30, 1979; not to exceed $40,000,000 for the first year ending September 30, 1980; $26,600,000 for the fiscal year ending September 30, 1981; $27,150,000 for the fiscal year ending September 30 1982; $25,000,000 for the fiscal year ending September 30, 1983; $25,800,000 for the fiscal year ending September 30, 1984; $28,665,000 for the fiscal year ending September 30, 1985 $27,760,000 for the fiscal year ending September 30, 1986;

$29,009,000 for the fiscal year ending September 30, 1987; $28,235,000 for the fiscal year ending September 30, 1988; $31,634,000 for the fiscal year ending September 30, 1989; $38,454,000 for the fiscal year ending September 30, 1990. Of the amounts authorized for Engineering under section 101(d)(1)(B) of the National Science Foundation Authorization Act of 1988, $24,000,000 is authorized for carrying out this Act for the fiscal year ending September 30, 1991, and of the amounts authorized for Geosciences under section 101(d)(1)(D) of the National Science Foundation Authorization Act of 1988, $13,000,000 is authorized for carrying out this Act for the fiscal year ending September 30, 1991. Of the amounts authorized for Research and Related Activities under section 101(e)(1) of the National Science Foundation Authorization Act of 1988, $29,000,000 is authorized for engineering research under this Act, and $14,750,000 is authorized for geosciences research under this Act, for the fiscal year ending September 30, 1992. Of the amounts authorized for Research and Related Activities under section 101(f)(1) of the National Science Foundation Authorization Act of 1988, $34,500,000 is authorized for engineering research under this Act, and $17,500,000 is authorized for geosciences research under this Act, for the fiscal year ending September 30, 1993. There are authorized to be appropriated, out of funds otherwise authorized to be appropriated to the National Science Foundation: (1) $16,200,000 for engineering research and $10,900,000 for geosciences research for the fiscal year ending September 30, 1995, and (2) $16,686,000 for engineering research and $11,227,000 for geosciences research for the fiscal year ending September 30, 1996. *There are authorized to be appropriated, out of funds otherwise authorized to be appropriated to the National Science Foundation, $28,400,000 for fiscal year 1997, including $17,500,000 for engineering research and $10,900,000 for geosciences research.*

(d) NATIONAL INTITUTE OF STANDARDS AND TECHNOLOGY—To enable the National Institute of Standards and Technology to carry out responsibilities that may be assigned to it under this Act, there are authorized to be appropriated $425,000 for the fiscal year ending September 30, 1981; $425,000 for the fiscal year ending September 30, 1982; $475,000 for the fiscal year ending September 30, 1983; $475,000 for the fiscal year ending September 30, 1984; $498,750 for the fiscal year ending September 30, 1985 $499,000 for the fiscal year ending September 30, 1986; $521,000 for the fiscal year ending September 30, 1987; $525,000 for the fiscal year ending September 30, 1988; $525,000 for the fiscal year ending September 30, 1989; $2,525,000 for the fiscal year ending September 30, 1990; $1,000,000 for the fiscal year ending September 30, 1991; $3,000,000 for the fiscal year ending September 30, 1992; and $4,750,000 for the fiscal year ending September 30, 1993. There are authorized to be appropriated, out of funds otherwise authorized to be appropriated to the National Institute of Standards and Technology, $1,900,000 for the fiscal year ending September 30, 1995, and $1,957,000 for the fiscal year ending September 30, 1996. *There are authorized to be appropriated, out of funds other-*

wise authorized to be appropriated to the National Institute of Standards and Technology, $1,932,000 for fiscal year 1997.

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XIII. Committee Recommendations

On April 25, 1996, a quorum being present, the Committee favorably reported the Omnibus Civilian Science Authorization Act, by voice vote, and recommends its enactment.

XIV. Dissenting Views

Dissenting Views on the Omnibus Civilian Science Authorization Act of 1996

Introduction

Democratic Members of the House Science Committee unanimously supported a substitute amendment which incorporated the President's budget request in fiscal year 1997 for the civilian research and development programs under our jurisdiction. Compared to the extreme measures endorsed by the Republicans, the President's request is a more responsible balancing of investments in our Nation's future with efforts to end federal deficit spending. The Republican Majority's desire to blindly slash spending can balance the budget in the short-term, *but* irresponsibly cutting programs endangers our long-term economic well-being.

Civilian research and development programs are especially vital in building a high-skill work force and in creating new knowledge that translates into new products, processes and insights. Compared to the Republican plan, the Democratic alternative would invest approximately $2 billion more in our children's future. Further, the Democratic alternative supports all types of research and development work. We do not choose winners and losers by selectively supporting only some types of so-called basic research while discriminating against work in the social sciences, in environmental research and in technology development. The following report documents the procedural abuses and policy differences that separate the Republican plan from the Democratic vision.

The Continuing Marginalization of the Committee Process

The process by which the Committee considered the "Omnibus Civilian Science Authorization Act of 1996" represents a new low point in the increasing marginalization of the Committee's deliberative process. The markup procedures were obviously designed to ensure minimal challenge to the Chairman's budget proposal. The tactics were predictable and effective:

- *First, bypass the Subcommittee markup.* Subcommittee markups take time, are less controllable, and give the minority too much notice. So, over the objections of the Ranking Democratic Subcommittee Members (who jointly wrote to the Chairman on April 4, 1996 requesting Subcommittee markups), the bill went to full committee without ever being considered by the subcommittees. Contrary to claims made at the markup, we are not aware of any instance in the past in which Democrats by-

passed subcommittee markups over the objections of the Minority members.

- *Second, roll all of the authorization bills usually considered separately together into a single $20-billion markup vehicle.* Marking up individual authorization bills takes too much time and gives Members too much of an opportunity to consider the merits of each bill separately. By packaging them all together, Members with limited time would only be able to focus on a few matters. This strategy worked. Last year, in a process that had already been abbreviated, the Committee and its constituent subcommittees spent 49 hours marking up R&D authorization bills. This year, the Committee spent all of five hours debating the Committee's entire civilian science portfolio. Nevertheless, after about only an hour of debate, the markup was replete with Majority complaints that the Minority was conducting a "filibuster" against the bill.
- *Third, avoid negotiations;* it's the Chairman's way or no way at all. When disagreement surfaced among Republicans about the Chairman's energy R&D authorization proposal, the Chairman simply jettisoned the energy provisions altogether. After all, resolving disputes takes time, and who has time when the trains are leaving the station? And, in any event, in his capacity as Vice-Chair of the Budget Committee, the Chairman is likely to be successful again this year in inserting his energy R&D budget in the report accompanying the budget resolution, so who needs an energy R&D authorization?
- *Fourth, set up artifical constraints.* This year, without a House-passed budget resolution, the Chairman could not claim that the Science Committee was somehow constrained by budget "caps" contained in the non-binding resolution. Nevertheless, the Chairman stated that the funding in the bill could not be altered without rendering the Committee's work meaningless or irrelevant to the budget process. However, the bogus nature of these caps and restraints is underscored by the fact the FY96 authorization levels for R&D which passed the House in H.R. 2405 were $1.15 billion less than the amount ultimately appropriated. In addition, the funding levels in this year's Republican bill are substantially higher than the FY97 levels approved in last year's House-passed budget resolution.
- *Finally, don't give anyone any time to actually read and deliberate the bill,* since that's just likely to cause more questions and trouble. The Chairman unveiled his stealth bill on Monday morning before a Wednesday full committee markup, during a week when Members were not scheduled to be back in Washington until Tuesday afternoon. The practical result was that Members barely had time to read the 132-page bill and accompanying staff charts and tables, much less to deliberate policies or propose alternatives. In the 103rd Congress, every authorization bill was circulated widely at least ten days before Subcommittee markup.

The Committee has also continued its unsavory practice of making policy first, and finding the facts about those policies later. The hearing record was altogether inadequate to give Members an opportunity to learn about the programs and make informed policy

choices. In a number of instances, policy and budget positions contained in the Chairman's bill had no basis in hearings. For example, Members heard no testimony on NOAA's Sea Grant and Ocean and Coastal Management programs, yet the Committee drastically cut funding for those programs. Conversely, the Chairman's bill increased funding above the President's request for NIST's labs and for NASA's science programs, without any justification in the record. The Technology Subcommittee will hold hearings later to provide the post hoc justification for the Committee's actions on the NIST labs.

Why does any of this matter? Are these procedural complaints little more than the frustrated expressions of a party no longer in power, or, as the Chairman of the Space Subcommittee so eloquently put it, the "squealing of animals?" In our view, what is happening in this and in other committees is not just "inside the Beltway" gamesmanship. What is at stake is the traditional role of expert committees, and beyond that the rights and prerogatives of all Members. It has become evident that the Republican leadership has decided that the considered judgment of expert committees no longer matter. As we have seen in many cases this year, bills have been brought to the floor which were never reported by committees. In other instances, the Republican leadership simply rewrote provisions they did not like in committee-reported bills. These practices have often led to the passage of ill-considered legislation which must then be "fixed" in the quiet backroom negotiations of a conference committee. The marginalization of the committees is part of a pattern of concentrating political power in the hands of the anointed few in the Republican leadership. The committee structure is being replaced by webs of personal influence that bind a handful of Republican Members to the Republican leadership. So far, Republican freshman have supported this power structure, but they may be beginning to learn that the flip side of this centralization of power is the inevitable devaluation of their own vote.

It is ironic that the Chairman asserted at the markup—erroneously—that Minority members had called for the abolition of the Science Committee. To the contrary, we believe that a Committee of Members well-versed in science and technology, and their implications for economic growth, environmental and public health, and the quality of life, is critical to informed Congressional decision-making. What we object to, quite simply, are any efforts to bypass the collective, considered judgment of the Committee through tactics that discourage Members from participating in thoughtful discussion, negotiation, and compromise.

Overall Budget Context

The Omnibus Science Authorization Bill of 1996 reflects the stark differences between Republican and Democratic views towards the role of research and development in the national agenda. Both parties are committed to the need for a balanced budget, but the President and Congressional Democrats have emphasized the need to include in any balanced budget plan sustained investments in R&D that will stimulate productivity. That is, long term economic growth will depend on achieving both a balanced budget *and* productivity gains. Democrats have framed this objective as a direct responsibility of the Federal Government and have supported

not only basic research, but also applied research and targeted technology programs. Republicans, on the other hand, have emphasized shrinking the Government and cutting spending as the only legitimate paths to economic growth and have advocated deep reductions in R&D. For example, the 1996 Budget Resolution supported by every Republican Member of Congress would have led to a one-third reduction in civilian R&D over seven years.

Republicans also believe that the market alone should address technology development and associated productivity gains. However, because of well known market failures, the private sector underinvests in long term research and technology development and is doing so at an accelerating pace. The President's F.Y. 97 budget has set aside funding for certain priority investments in R&D to fill this gap. Not surprisingly, many of these critical investments have been targeted by Congressional Republicans.

Thus the debate over R&D, as in other areas, is more related to differing policy priorities than deficit reduction per se. The questions Congress will address in the context of the F.Y. 97 budget will include allocating resources between defense and non-defense programs, determining the breadth of the Federal role in funding research and development, and structuring R&D priorities within a declining budget to best meet economic and broader social goals.

On March 19, the President submitted a seven-year budget plan which, according to OMB assumptions, eliminates the deficit by the year 2000. Under CBO's most cautious economic and technical assumptions, the deficit would be eliminated in the year 2002 provided that additional contingent policies proposed in the budget are carried out. During Committee hearings and during the markup, Republicans contrasted the President's budget with the Republican budget as too generous in early years, yet below the Republican budget in later years. Mr. Baker summarized the Republican view by saying that it is more humane to "shoot the baby" in the first years since the final endpoint for both budgets is similar. Although both budgets impose long-term budget constraints, the Republican cuts in investment are much deeper. Further, the President's budget provides sufficient levels of interim funding to make a smooth transition—that is, it contains enough funding to reduce personnel levels in an orderly fashion and to develop the necessary technologies to carry out a cost effective and productive science program in the future.

Basic Research

The Majority has characterized its bill as more supportive of basic research than is the President's R&D budget request, which is the basis for the Democratic substitute. During Committee markup of the bill, the Chairman displayed a chart which purported to show a total authorization level for basic research in the bill that was $285 million above the President's budget request. However, the chart is misleading because it is based on an arbitrary classification of "basic" versus "applied" rather than the classification used by the Office of Management and Budget (OMB).[1]

[1] OMB Circular A-11, Budget Formulation / Submission Processes, specifies that agency R&D budgets be divided into the categories of basic research, applied research, and development. The

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For example, the Chairman's chart for basic research authorizations in the bill includes NOAA, which reports no basic research expenditures to OMB, but excludes EPA, which does report such expenditures. The chart also includes inappropriate shares of the budget subcomponents for NSF, NASA, and NIST that contain basic research activities, but excludes subcomponents of NSF and NASA for which basic research expenditures are reported. Table 1 shows the comparison of budget authority for basic research activities between the Republican bill, as reported, and the Democratic substitute.[2] Despite the Chairman's claims to the contrary, it is clear that the totals for basic research activities for the Republican bill and the Democratic substitute are essentially equivalent, the totals differing by less than 0.5 percent.

The two measures do differ, however, in important ways in the details of the allocations made and in the policies applied to the agencies. While the Majority has expressed a preference for NASA Space Science through a more generous allocation than in the Democratic substitute, NSF, the premier basic research funding agency in the Committee's jurisdiction and the agency with the broadest charter for advancing research and education in science and engineering, merits less than inflationary growth. The Republican bill provides growth of 2.2 percent above the FY 1996 Appropriations Conference Report, and less than 1 percent above the level in the final FY 1996 omnibus appropriation agreement. The equivalent increases for the Democratic substitute are 4.6 percent and 3.3 percent, respectively. For research project support, the differences are more striking, with the Democratic substitute providing 5 percent growth compared to 1 percent in the bill, relative to the FY 1996 omnibus appropriations agreement. As in the NSF authorization reported by the Committee during the first session of this Congress, the Majority seems determined to authorize NSF at levels that are inadequate for meeting the vital research and education mission of NSF and that will likely be ignored in the appropriations process. The Majority's implacable position led to an authorization level for FY 1996 that was $54 million below the Appropriations Conference agreement and $94 million below the final omnibus appropriations agreement.

The Republican bill also totally ignores a major component of the federal civilian basic research funding by excluding authorizations for the Department of Energy, which has the largest basic research

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agencies are required to submit to OMB data on budget allocations within these categories. The American Association for the Advancement of Science (AAAS), which has established an R&D Budget and Policy Project to track this information, has gathered the FY 1997 basic research allocations in the President's budget request, as reported by the agencies authorized in the bill. AAAS identifies only four of the agencies that are authorized by the bill, NSF, NASA, NIST, and EPA, as having reported budget allocations for basic research. The basic research activities are contained within specific subcomponents of their budgets. Historical data show that a percentage of each subcomponent is allocated for basic research, where the percentage may change slightly from year to year.

[2] Agencies report basic research activities for only some budget subaccounts. The names of these subaccounts and the amounts included in each subaccount that are reported to OMB as supporting basic research are shown in the table. Both FY 1997 columns in the table are estimates because the percentage of funding for each subaccount that is identified as supporting basic research is based on historical data, which may vary slightly from year to year. The numbers shown in the columns labeled "FY 1996" and "FY 1997, Brown Substitute" (same budget numbers as President's request) were reported by the AAAS R&D Budget and Policy Analysis Project. The numbers in the column labeled "FY 1997, Rep. Bill" result from applying the same percentages, which will generate the Brown substitute estimate for basic research funding, to the authorizations in the bill for the corresponding subaccounts for each agency.

budget, after NSF, in the Committee's jurisdiction. This negligence is hardly consistent with the Majority's claim to champion and protect basic research in the federal R&D budget. The Democratic substitute by contrast includes the President's request for DOE.

Further, unlike the Republican bill, the Democratic substitute places no bans or restrictions on legitimate areas of scientific inquiry, presuming that merit review will be used to select the most promising research directions to advance fundamental knowledge. In contrast, the Republican bill essentially eliminates EPA's ability to fund research related to global climate change and other examples of "liberal claptrap", and it continues an oblique attack on NSF's support of the behavioral and social sciences through elimination of a scientific directorate and specific guidance in the accompanying report language.

We object to the unfavorable characterization in the Committee View of the value and content of the research sponsored by NSF's Social, Behavioral, and Economic Sciences (SBE) Directorate in light of the lack of any hearing or oversight record to support these statements. The most recent testimony received by the Committee concerning the social sciences, obtained in hearings on March 2, 1995, May 20, 1993, and March 14, 1989, documents the important contributions of research in the social, behavioral, and economic sciences. None of these hearings provides a basis for questioning the priority or basic nature of the research sponsored by NSF in these fields.[3] [4]

The Majority characterizes the elimination of an NSF scientific directorate not as an attack on the social sciences, but as merely imposing needed management streamlining on the agency. The Ma-

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[3] For example, one accomplishment of basic research in the social sciences described in the March 2, 1995 hearing was the development of game theory, which deals with the study of rational behavior in situations involving interdependence. Recently, this body of knowledge provided the basis for the design of ground rules for the auction by the Federal Communications Commission (FCC) of the radio spectrum for personal communications services. Special rules were needed because, unlike traditional auctions in which goods are sold one at a time in sequence, the licenses had to be sold all at once in a series of rounds since the value of a particular license was dependent on what other licenses a particular bidder could obtain. The benefit to the government of the auction is apparent from the Explanation of the Conference Agreement on the Budget (H. Con. Res. 67), which in the discussion of Function 950, Undistributed Offsetting Receipts, states that, "The conference agreement assumes the FCC is providing sufficient authority to recover value from the spectrum amounting to $14 billion over seven years."

[4] Moreover, the overall importance of the social and behavioral sciences have been affirmed by the scientific community. The NSF Director in a May 22, 1995 letter to the Committee stated:

I am, however, concerned that we have not been more effective in informing Congress about the important role played by the social, behavioral, and economic sciences in the Nation's basic research enterprise. These areas of science have been an integral part of the portfolio of research that we have funded since the 1950s, and are important to our mission to maintain the health of the Nation's science and engineering enterprise. These disciplines have contributed significant advances in research.

Dr. Bruce Alberts, the President of the National Academy of Sciences, recently stated that:

The National Academy of Sciences strongly affirms that the social and behavioral sciences are important disciplines in which independent scholarship and basic research have made significant contributions to mankind's store of knowledge and to the ability to meet critical societal challenges...The National Institutes of Health and the National Science Foundation, through competitively awarded research grants, provide financial support for the generation of the basic scientific knowledge needed to devise solutions to ... pressing [social] problems. These programs are particularly valuable for the quality of the science they produce.

And finally, in a June 1, 1995 letter to the Committee, Rita Colwell, President of the American Associations for the Advancement of Science, stated:

These [social science] disciplines are an integral part of the U.S. research and development enterprise, as important to the Nation's future as physics, chemistry, engineering, and biology. They have been part of NSF's research portfolio for over four decades and have contributed in important ways to our growing understanding of the natural and human environment, to the improvement of our health and standard of living, and to the structure of our economy and government.

jority, however, produces no evidence to support this contention. The committee has no hearing record whatever on this matter. Neither NSF, nor any independent entity, has been asked by the Committee to develop a plan for reorganization that lays out the advantages and provides an estimate of cost savings of such a change. In fact, the bill asks for the plan for reorganization after the change is imposed. Section 111(c) of the bill bans use of FY 1997 funding for more than 6 directorates, while section 130 specifies that the agency has until November 15, 1996, one and a half months into the new fiscal year, to present a reorganization plan to Congress. In short, the agency is being forced into a significant internal realignment prior to assessment of the impact and development of an implementation plan. Adverse impacts on the agency will be felt by academic researchers, who may experience delays in funding for the FY 1997 increment of multi-year awards from a directorate that may suddenly disappear at the beginning of FY 1997.

Available evidence on the administrative efficiency of NSF suggests that the agency does not need micromanagement direction from Congress. NSF is not a bloated bureaucracy. Between fiscal years 1983 and 1993, NSF's full time staff positions remained constant, while its budget nearly tripled and the workload, measured by numbers of proposals processed, more than doubled. In the current fiscal year, the cost of operating NSF is 4% of the total budget, which is a modest amount of administrative overhead. NSF has been able to operate with increasing efficiency due to the dedication of its people and due to information infrastructure investments, which have resulted in productivity improvements.

During the markup, Rep. Cramer offered an amendment to the bill to replace the provisions that eliminate a directorate with a requirement for NSF to submit by February 15, 1997 a reorganization plan with several options to further improve operational effectiveness and to reduce administrative costs. The amendment required that one option included in the plan be elimination of one directorate. Approval of the Cramer amendment would have given the Committee time to consider the recommendations of the plan through the hearings process prior to preparation of the FY 1998 authorization legislation and to make an informed decision on necessary legislation. The amendment failed on a party line vote. If the Majority were serious that the provisions in the bill are about administrative efficiency, the reasonable approach recommended by the Cramer amendment would have found support on the merits of the argument.

The Republican bill also imposes ill-considered cuts to NSF's salaries and administrative expenses account of more than $7 million, or 5.5 percent, below the current fiscal year budget and $9 million below the Democratic substitute. NSF has pointed out that, after taking into account fixed costs for rent and utilities, such a cut would translate into a reduction of 120 staff positions—about 10 percent of the authorized staffing level. NSF estimates that a budget cut of this magnitude will result in layoffs of scientific and engineering personnel—the people who run the research programs B and will degrade the efficiency of operations by placing new burdens on the remaining, demoralized staff. Moreover, the cut would

result in a reduction of $1 to $2 million in the infrastructure investments that have been the basis of past productivity improvements.

The net result of the cut to internal operations will be to impede virtually all business operations of NSF from disbursement of payments to awardees to the timing and quality of award decisions. An amendment was offered by Rep. Cramer to restore funding for salaries and administrative expenses for NSF to the level of the Democratic substitute. The amendment failed on a party line vote. The Majority is remarkably immune to arguments against imposition of such disruptive effects on the administration of federal programs as evidenced by the government shutdowns imposed by the Republican congressional majority during the current fiscal year, when NSF suffered a backlog of 2500 proposals and had to delay $100 to $200 million in research grants. Significant delays occurred in newly-planned research competitions and in new awards, leading to disruptions in important research projects at universities throughout the nation. Similar results will obtain from the proposed drastic cuts to NSF staff.

TABLE 1. COMPARISON OF BASIC RESEARCH FUNDING
REPUBLICAN BILL VS. BROWN SUBSTITUTE

[$ millions]

AGENCY	FY 1996	FY 1997 Rep. Bill	FY 1997 Brown Subst.
NSF	1968	2018	2090
R&RA[1]		1947	2016
EHR[2]		71	74
NASA	1868	1928	1826
Space Sci.		1084	928
Life&Micro.		204	204
Aero. R&T		222	232
MPE[3]		41	56
Acad. Pgm.		91	96
Mission Spt.		286	307
NIST	37	39	38
STRS[4]		39	38
EPA	69	67	80
S&T Res.		67	80
TOTAL	3942	4052	4034

[1] Research & Related Activities
[2] Education and Human Resources
[3] Mission to Planet Earth
[4] Scientific and Technical Research and Services Technology

Technology

In General

The Republican bill, as reported, would do major damage to our country's efforts to stay competitive in international markets. The cuts in technology programs read almost as if someone has been given the assignment to go through the bill, find programs of use to struggling small businessmen, and remove all of them. These same Republicans, who would abolish the Department of Energy at a time of record gasoline imports and abolish the Commerce Department at a time of oppressive trade deficits, are going after like-minded programs wherever their location.

This systematic attack on US industry-government cooperation comes at a time when our major foreign competitors realize the benefits of such programs and are beefing up their sponsorship of industry-government cooperation as part of their overall research and development strategy. By supporting only basic research and leaving technology development to industry and other governments around the world, we are setting the table for other nations to eat our lunch.

A just-released study by Commerce's Office of Technology Policy entitled *"International Science and Technology: Emerging Trends in Government Policies and Expenditures"* shows that we are the only nation in retreat. It explains that:

- European nations are accelerating investment in commercial technologies through national programs and through European Union (EU) joint R&D initiatives.
- Japan plans to double the government science and technology budget by the year 2000.
- China plans to triple its investment in R&D by 2000 targeting computers, software, telecommunications, pharmaceuticals, and infrastructure.
- Korea has considerably boosted its R&D efforts in key industrial areas and is actively acquiring foreign technology.
- The Newly Emerging Asian economies are planning to significantly increase the percent of their GDP devoted to science and technology.

For these nations, technology policy is an integral part of their preparation for the 21st century marketplace. We, on the other hand, are being asked to ignore the contributions to technology development of competing nations and to attack the very cooperative programs that are giving our manufacturers a chance. Consider the following recommendations of the Republican bill:

- The Advanced Technology Program of the Department of Commerce is slated for elimination. Technologies funded by the ATP program are high risk, yet high payoff, programs that are too risky and too long-term to be of interest to venture capitalists. NIST systematically surveys industry for ATP research topics that can revolutionize industries and then uses merit review to make sure that only highly capable companies, willing to put up at least half of the money themselves, are assisted by the program. Time to market is essential in the high-tech marketplace; the difference between market leadership or being out-maneuvered by a foreign competitor is measured in months if not weeks. Virtually every company assisted by the ATP reported that it was able to move forward much faster because of ATP grants.
- The Manufacturing Extension Program is the one source of modernization advice that is available to the smallest of manufacturers. MEP Centers now serve most Congressional districts. Literally thousands of companies which have been aided by MEP, this country's premier program for assisting small businessmen who manufacture for a living. Yet, the Republican budget cuts this program off at the knees.

- The Republican bill also ends funding for a number of interagency initiatives which help US industry. The Partnership for a New Generation of Vehicles, for instance, is a cooperative effort with over 300 American auto companies and suppliers, to develop an automobile with all of today's advantages and three times the gas mileage. The Republican bill also attacks our government's efforts to help US industry keep up in high performance computing and environmental technology.

What is the Committee's hearing record to justify elimination of these programs? All but two businessmen who have testified about these programs over the last decade have sung these programs' praises. Thousands of businessmen have written the Congress explaining the difference these programs have made in their companies' ability to compete in world markets.

A clue to Republican opposition can be found in an April 18, 1996 letter from the Chairman to the editor of *Nature* in which he quotes the following passage from "Ending Corporate Welfare as We Know It," by Stephen Moore and Dean Stansel of the Cato Institute:

"Many of the top recipients of technology research grants awarded by the Clinton administration were also substantial contributors to the Clinton campaign or the Democratic National Committee. For example, Table 1 [on page 8 of the study] lists eight Fortune 500 firms that were multi-million-dollar winners of the Advanced Technology Program or the Technology Reinvestment Program in 1994 that were also large Democratic campaign contributors, according to Federal Election Commission (FEC) data compiled by Common Cause. At the very least, these golden handshake programs create an impression that government is for sale."

We decided to take a look at Table 1—the only Cato "documentation" of political chicanery—and found the devil is in the details. The five ATP award winners (AT&T, Boeing, Chevron, Shell, and Texaco) hardly have reputations as partisan Democratic companies. Each of these companies gives more heavily to Republican candidates than to Democrats. Even Cato should realize that the overriding political interests of these companies are telecommunications reform, space and defense procurements, and oil and gas policy, not ATP grants. For instance, the report mentions Boeing's $2 million from the ATP program, but overlooks its $6 billion contract for the space station. We are also struck that the Chairman would give credence to a study which also calls for elimination of many of the programs in the Republican bill, including NIST's laboratory programs, R&D support of university researchers, NOAA's Advanced Short-Term Forecast and Warning Services, FAA's research program, the Office of Science and Technology Policy, CRADAs, and all civilian research programs of the Department of Energy. Cato also is on record as calling both the space station and the space shuttle corporate welfare and calling for their elimination.

In short, by referencing the Cato "study", the Chairman may not have originated a sloppy, unsubstantiated assertion, but he has certainly repeated one.

This Republican bill's approach to technology would be laughable if the underlying problem were not so deadly serious. If we do not give our own companies the help they request and need, no one

will. It is time to understand that American companies are competing in the real world, not the ideal world. American manufacturers are our foot soldiers in international trade, and it is foolish, if not unpatriotic, to refuse them the tactical support they need. Any hockey fan knows it would be insane for our government to pull itself off the field while the European and East Asian industry-government power plays are underway. It is ironic that the "party of business" has suffered massive hearing loss when American businesses cry for help. We hope that when the budget plays itself out in FY 1997 saner heads will have prevailed, just as they did in FY 1996.

National Institute of Standards and Technology

The Democratic substitute seeks to achieve a balance between the short-term, medium-term, and long-term research goals of the Nation and represents our best effort to develop a research and development policy that reflects today's economic realities, within the context of balancing the Federal budget.

The Democratic substitute moves the debate over the direction of Federal research and development above partisan politics and follows the recommendations and guidance of the business and academic communities. For example, the April, 1996 Council on Competitiveness report, "Endless Frontier, Limited Resources", urges Congress to discard outdated distinctions between basic and applied research and to develop a comprehensive and seamless vision of Federal R&D policy.[5] The central finding of the report is "that R&D partnerships hold the key to meeting the challenge of transition that our Nation now faces." Examples of current partnerships included in the report are the Partnership for a New Generation of Vehicles, the Advanced Technology Program, the Manufacturing

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[5] *Endless Frontier, Limited Resources* is a recent study by the Council on Competitiveness, a non-profit, non-partisan forum of CEOs from all of our high-tech companies. The report is devoted to the new approaches to investment needed in the post-Cold War age of global economic competitiveness. Here are some excerpts from the study:

*... civilian and commercial interests are the primary drivers of leading-edge technology, rather than the defense sector

*...[We] call for a reasoned end to the unproductive ideological debate over the federal government's proper role in R&D.

**Battles over the proper limits of government activity have reinforced the outdated distinction between 'basic' and 'applied' research as the primary basis for decision-making.

*A national consensus on goals is needed ... *[but]* has not yet taken place because discussion is mired in symbols and code words. ... 'basic' and 'applied' no longer reflects the realities of the innovation process. The U.S. must adopt ... more up-to-date vocabulary, one that accounts for changing calculations of R&D risk and relevance over short-, medium- and long-term horizons:

**Federal R&D spending is ... an investment that can often have important economic and social multipliers. ... another core mission of R&D policy should be to stimulate the research required to keep the U.S. economically competitive, particularly research related to critical technologies that are out of reach of industry sectors by themselves... *The government, industry and academia should select these technologies together.[emphasis added]*

**The government should ... foster research partnerships to promote industrial innovation: The national labs' technology transfer efforts, the inter-agency Partnership for a New Generation of Vehicles and the Commerce Department's *Advanced Technology Program* are three different approaches to encourage partnering that appear to have merit.

**...the neglect of longer-term corporate research could undermine the viability of American industry. Incremental research is unlikely to produce the type of breakthrough inventions—like the transistor and laser—that have been so important to our economy and our standard of living. *[Note that the long-term research that lead to these two devices was 'applied research' in the sense that the objectives were the solutions of known problems.]*

**...policy makers must cut through the semantic quagmire and come to grips with two fundamental questions:1] What research is necessary to maintain the nation's scientific and technological competitiveness? and 2] Which of those research endeavors will not be accomplished without government investment?

Extension Program, and Cooperative Research and Development Agreements—four programs which are abolished or greatly constrained in the Republican bill.[6]

The Chairman has repeatedly said that the Science Committee is making itself relevant to the process of setting priorities. We remind our colleagues that the Democratic substitute offered last year would have provided overall funding of $754.1 million for the Technology Administration, including the NIST labs, ATP, and MEP. The Senate Commerce Committee unanimously approved funding of $755 million for these same programs—including funding for ATP and MEP. And the Omnibus Appropriations bill for fiscal year 1996 also includes funding for the Office of the Undersecretary of Technology, ATP, and MEP. In short, last year's Republican authorization bill was ultimately disregarded by the House, the Senate, and the White House, among others. This year's bill will no doubt suffer the same fate.

We are also concerned that the Majority, with no hearing record, is again micromanaging the NIST laboratory research functions. This year's actions are reminiscent of last year's report language which forbade NIST from performing basic metrology research in the areas of health, environment, fire, and information infrastructure. In the FY96 authorization process, overall "budget caps" set by the Chairman drove the decision-making process. In FY97 these same budget considerations apparently require an *increase* of almost $10 million over the President's request for NIST laboratory funding. The majority justifies these increases as "unfunded FY96 requests for increased funding" and then micromanages the windfall by specifying exactly which lab account should be increased and for what purpose.[7] In the absence of any outside expert testimony on the NIST laboratory program we fail to see the need to micromanage NIST's lab program—particularly in light of last year's actions.

We feel that the most important recommendation of the Council on Competitiveness report was for "a reasoned end to the unproductive ideological debate over the federal government's proper role in R&D." With Committee passage of the Republican bill, that unproductive debate will unfortunately continue.

Space

The Committee's treatment of the funding and programs of the National Aeronautics and Space Administration (NASA) is ill-advised and ultimately unsustainable. If enacted, the measures contained in the Republican bill will do real damage to the Nation's civil space program and will send a message that the Congress is no longer interested in maintaining American leadership in space.

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[6] The Advanced Technology Program supports government/industry/university partnerships to jointly fund prototype development of new enabling technology that could propel the U.S. technology base into the 21st century. The Manufacturing Extension Partnership also brings government, industry, and universities together to help America's small and medium-sized manufacturers modernize to meet the challenges of a technology-driven, world-wide economy.

[7] We note that the overall shortfall last year was $13.2 million which means that some FY96 requests will remain unfunded. What is perplexing is how and why the majority decided to micromanage the increased funding. For example, the majority increased funding for semiconductor metrology related to National Technology Roadmap for Semiconductors. However, the FY97 budget request includes a $3.4 million increase for this same objective.

There are several major objections that we have to the Republican approach, all of which were remedied in the Democratic substitute. First, the Republican bill slashes NASA's overall funding by more than $300 milllion relative to the President's request for Fiscal Year 1997 and is more than $400 million below the Fiscal Year 1996 funding level. These additional cuts are being imposed despite the fact that NASA's planned outyear funding has already been cut by more than a third over the past three years. In responding to those earlier funding reductions, NASA has restructured all of its major programs—including the Space Station and Mission to Planet Earth—cut its costs, and streamlined its operations. How would the Republican bill reward NASA's efforts to absorb major cuts while still maintaining its world-class research and development capabilities? It would reward all of NASA's hard work by making even deeper cuts to its budget! The Democratic substitute would have restored NASA's budget to the President's request level.

Second, specific NASA cuts contained in the Republican bill are quite troubling, and inconsistent with the input received by the Committee. Consider, for example, the cut made to Mission to Planet Earth (MTPE). The MTPE program is a major national environmental research and development initiative that seeks to increase our understanding of the interactions of the Earth's atmosphere, oceans, and biosphere, their impacts on climate and weather, and their implications for vital sectors of our economy, ranging from agriculture to insurance. The Republican bill would cut the request for MTPE by 27 percent, with the majority of the cuts allocated to the Earth Observing System. In particular, the Republican bill would essentially cancel the EOS PM-1 and CHEM-1 spacecraft projects, and cut funding for the EOS Data and Information System (EOSDIS) in half. The actions to cancel the PM-1 and CHEM-1 missions would, of course, be directly counter to the recommendations of the National Research Council review of Mission to Planet EarthCa review that was specifically requested last year by the Chairman. Sadly, the Mission to Planet Earth cuts represent additional evidence of Republican antipathy towards the Nation's environmental agenda. The Democratic substitute would have restored the requested funding for Mission to Planet Earth.

Another cut that is quite troubling is the $34 million reduction (almost 20 percent) to NASA's Advanced Subsonics aeronautics research program. With this action, the Advanced Subsonics program would be cut below the FY 1996 level. What sorts of research activities does the Advanced Subsonics program support? The R&D undertaken in the program is broad in scope and important in content: aging aircraft safety concerns; improvements to the Nation's overburdened air traffic management system; development of quieter, more fuel-efficient aircraft; improvements to general aviation and short-haul aircraft; and development of low cost unpiloted aircraft for environmental monitoring in the stratosphere, to name just a few of the areas addressed. It is research that is important in its own right, but it also is research that is directly relevant to America's continued competitive advantage in the world's aerospace markets—a competitive advantage that means good-paying, high-skilled jobs for American workers. Why the Republicans would

want to cut such beneficial research is a mystery. The Democratic substitute would have restored the Advanced Subsonics research funding.

Finally, the Committee's bill makes major cuts to NASA's personnel and maintenance accounts—cuts that are a particularly ill-advised and that will impose real hardships on the hardworking employees of all of NASA's Centers, including Kennedy Space Center, Johnson Space Center, Marshall Space Flight Center, the Langley, Lewis, and Ames Research Centers, and others. As the NASA Comptroller has noted, "unless a miracle occurs and we have both buyout authority and a lot of takers, *there is simply no way feasible to implement this reduction, without resorting to furloughs* [emphasis added]". The Republicans' delay in enacting an FY 1996 appropriation for NASA has already led to two governmental shutdowns. Do Republicans really want to put NASA's employees through another furlough in Fiscal Year 1997?

The arbitrary cuts to NASA's maintenance budget will have an equally negative impact on the ability of NASA's field Centers to carry out their missions. Reducing the NASA facilities account by one-third will seriously jeopardize the agency's ability to maintain the physical infrastructure at its Centers and to ensure the safety of those facilities. Cutting NASA's maintenance budget is simply one more example of an approach that strives for the appearance of fiscal responsibility while in reality costing the taxpayers more over the long run. The Democratic substitute would have restored the needed personnel and maintenance funding for the NASA Centers.

It is noteworthy that the Republican bill increases funding for the Space Science account by $300 million above the President's request for Fiscal Year 1997. Certainly, the Committee's record since the dawn of the space age demonstrates bipartisan support for a strong Space Science program. That bipartisan support continues to this day. Yet the approach taken in the Republican bill does nothing to advance the health of the Space Science program beyond what was already done in the President's FY 1997 request. Rather the Committee's large funding increase in FY 1997 fixes a largely non-existent problem.

Witnesses before the Science Committee have in general found the FY 1997 Space Science funding level in the President's request to be a good one; their concern has been with future funding. Unfortunately, increased funding in FY 1997 does nothing to address that potential out-year problem. Moreover, the ability of NASA to effectively spend the proposed increase in FY 1997 has never been seriously examined in the Committee's limited hearings this year. Thus, given the choice between seriously unbalancing and weakening NASA's overall program by arbitrarily increasing the Space Science account above the President's request or maintaining a balanced, robust space program with full funding for Space Science, the Democratic substitute took the latter approach.

One other element of the Republican bill should be mentioned—namely, a series of policy directives that have little or no basis of support or even discussion in this year's hearing record. Some of the proposals may have merit, but the Committee has had little opportunity to review them in any depth. For example, the Repub-

lican bill requests additional studies of the Mission to Planet Earth program that duplicate studies already undertaken—at the Committee's request—by the National Research Council. Such study requests call into question the Committee's willingness to give serious consideration to the advice it solicits and impose yet another burden on NASA at a time that the Committee is proposing to cut its budget.

Environment

During the same week that the Republican leadership brought bills to the House floor to demonstrate their Members' dedication to environmental protection, this Committee reported an authorization bill in stark contrast to that packaged pro-environment message. The Republican Committee bill authorizes 6% fewer funds for science programs than requested in the FY97 budget overall. However, environmental research and development programs were cut more than 20% below the Democratic alternative.

The Republican bill has numerous examples which illustrate the majority's bias against environmental R&D. Mission to Planet Earth, NASA's primary environmental science program, receives 27% fewer funds in this authorization bill than the Administration requested even though the overall NASA authorization is only 2% below the Administration's FY 97 request.

The Republican's NOAA authorization is 15% below the FY97 request. Overall, the Republican bill would reduce NOAA's funding by $316 million from the request level supported by Democratic members of the Science Committee. This is a steep cut in funding for NOAA's programs. However, these overall reductions appear mild in comparison to those suggested for the Coastal Zone Management Programs (CZMA) and the National Marine Fisheries Service (NMFS) in the budget tables adopted by the Committee. These two programs, under the jurisdiction of the Resources Committee, are cut by 83% and 22%, respectively, below the FY97 request.

The cuts in CZMA and NMFS are due to the fact that the Republican bill imposes an arbitrary budget cap on NOAA spending. The suggested cuts to the CZMA programs—from a $64.7 million request to $10.9 million—demonstrate a 180 degree reversal by Committee Republicans to the votes they cast just one day earlier on the floor of the House. In that vote, with the floor cameras on them, every Committee Republican voted in favor of reauthorization of the CZMA; the next day in the Science Committee, Republicans voted to slash funding for that program. By contrast, the Democratic substitute contained no budget caps and made no attempt to force cuts on programs in the Resources Committee's jurisdiction.

The Republican proposal to cut NMFS from the request level of $305.6 million to $240 million risks thousands of jobs in the commercial and recreational fishing industry as well as substantial loss of international competitiveness in the seafood export business. The Republican Majority is blissfully unaware of these consequences because the Committee has never held hearings on coastal, ocean or fisheries programs; fundamentally, the Republicans cut most what they understand least.

In another area at NOAA, the Republican bill makes a $13.8 million reduction from the $49.8 million requested for the Sea Grant program. The irony in this action is that it directly contradicts the warm praise offered by Republican Members for the Sea Grant program during the markup and the claim made by the Chair that the Sea Grant program was being increased in the Republican bill. Again, no hearings have been held on the Sea Grant program to support the Republicans' hostile position and budgetary actions.

Among other major reductions in the Republican bill is a $26 million reduction to the National Weather Service Operations and Research line which funds NWS personnel nationwide. In order to meet this reduction, the NWS has stated that it would need to reduce staffing in field offices and consider consolidation of existing field offices, and would be unable to provide additional weather services to the three additional areas recently identified by the National Research Council as being at risk in the weather service modernization plan.

The Republican bill again attempts to undercut NOAA's role in the Global Change program. This program was characterized by the Subcommittee Chair as "throwing money down a rat hole." This narrow minded view of environmental research and development epitomizes the uncompromising extremism of the Republican party towards an issue about which the public has expressed a clear concern. The irony in this case is that in the Republican attempt to undercut Global Change, other critical initiatives directed at near term environmental problems will suffer. For example, the reduction will jeopardize NOAA's Health of the Atmosphere program which was intended to develop a scientific data base on ozone noncompliance in the Southeast in order to structure a regulatory relief effort by those affected states.

With respect to the Environmental Protection Agency, the authorization in the Republican bill is 16% below the FY97 request. These cuts represent another direct contradiction between the Majority's rhetoric and their policy. Numerous debates have occurred in which Members have called for environmental protection policies based upon "sound science" and focused on problems that present the greatest risk to human health and the environment. We agree, but fail to see how decreasing the funding for the portion of EPA's budget that is devoted to environmental research and development will help us to achieve this goal.

It is our belief that funding a strong EPA research and development program will provide knowledge to retool our environmental protection programs so that society's scarce resources will be used to maximize environmental and social benefits and minimize costs. A lesser investment in environmental research and development may save federal dollars in FY97, but history has taught us that ignorance does not come cheap in the long term. Prevention of pollution is cheaper than mitigating pollution effects. If we want to focus our environmental and human health protection programs on the most pressing environmental problems we must have an understanding of what the problems are. If we are serious about reforming our regulatory structure to facilitate the use of more flexible, creative ways to achieve environmental goals, we must invest in the design of new environmental protection options. The public has

never called for a reduction in environmental and human health protection. They do, however, want the government to ensure that these protections are provided without undue burdens and costs to the health of our economy. A strong EPA research and development program is essential to meeting this goal.

We also are in strong disagreement with the imposition of bans on research included in the EPA authorization title. There is no testimony in the limited hearing record to support a ban on indoor air research, the Environmental Technology Initiative, or the Climate Change Action Plan. All three of these programs are directed toward the development of voluntary, non-regulatory means of achieving environmental and human health goals in cooperation with industry.

We fail to see how drastic cuts in environmental research funding and termination of voluntary, non-regulatory initiatives done in cooperation with industry will achieve a cleaner environment and adequate human health protection at lower cost. Although the Majority's rhetoric declares solid support for environmental protection, the policies and funding priorities contained in this bill make it clear they are unwilling to back up their rhetoric with real resources.

Energy

Unlike the bill reported last year, which included all of the agencies under the Committee's jurisdiction, and contrary to what seemed the intent of the Republican Majority only days before the markup, the Chairman chose to leave the Department of Energy—20 percent of the Committee's jurisdiction—orphaned in the Never-Never Land between future hearings, an elusive Subcommittee markup, and an increasingly-ephemeral full Committee markup.

The Chairman stated that a Department of Energy authorization was not needed, because H.R. 2405, the Omnibus Science Act of 1995 (passed by the House in October, 1995), already contained a DOE authorization for fiscal year 1997. But, by that argument, the Republican bill also should not have included the Fire Administration, NSF, or the Space Station, all of which had FY 1997 authorizations that passed the House last year. In addition, H.R. 2405 provided only the grossest level of detail for energy R&D accounts in FY 1997. The bill authorized $2.6 billion for Energy Supply R&D; $950 million for high energy and nuclear physics; $221 million for fossil energy R&D; and $230 million for energy conservation R&D. Furthermore, by authorizing the energy R&D programs for FY 1997 through a little-debated stealth floor amendment, the Chairman circumvented the Committee, which had never considered FY 1997 funding at DOE, despite claims to the contrary. By settling for the FY 1997 authorizations in H.R. 2405, the Committee has abrogated its responsibility to provide direction to DOE programs such as fusion energy research, high energy and nuclear physics, and basic energy sciences early in the budget process.

This state of affairs is especially egregious because the cuts required by the funding levels contained in H.R. 2405 are drastic. When compared with the President's budget, H.R. 2405 would require decreases on the order of 50 percent cut to solar and conservation research and development, one-third to renewables (even including a substantial increase for hydrogen R&D), 10 percent in

biological and environmental research, over 20 percent to fusion research, and one-third in fossil energy R&D (which the President already cut by over 15 percent).

In this light, a vote against the Democratic substitute can only be construed as a vote to leave in effect the House-passed FY 1997 authorizations for energy R&D in H.R. 2405 and the drastic cuts that accompany those authorizations. These cuts will be felt in research laboratories across the Nation. The Democratic substitute, on the other hand, offered the President's budget for energy R&D. Through the Strategic Realignment Initiative, which streamlined the DOE bureaucracy and cut red tape, and through several tough budgetary decisions, the President held the overall DOE budget level from FY 1996 to FY 1997. However, within that budget, the President chose to increase civilian energy R&D activities by $250 million in FY 1997. Furthermore, these budget figures fit integrally into the President's overall plan to reach a balanced budget in the year 2002. The Administration made tough choices in energy R&D to fund its priorities. These choices included scaling back fossil energy R&D and canceling several clean coal projects.

These decreases were applied in part to Presidential priorities. One of the strongest priorities in energy R&D is energy efficiency and renewables R&D. These programs have already proved themselves by providing tremendous returns to the taxpayer in the form of lower energy bills, environmental protection, greater energy security and high-tech jobs.

There are many examples of DOE success stories resulting from these programs that outweigh the taxpayers' funds that were used to support them. For instance, conservation R&D programs in the 1980s led to tremendous advances in domestic production of photovoltaic technologies. These advances have produced over $100 million in sales, which support 3,800 U.S. jobs. In another example, DOE R&D programs developed new fluorescent light ballasts that reduce the flicker and hum of traditional ballasts and have saved consumers $750 million in energy bills. These same programs also developed advanced energy efficient windows, which have produced energy savings of over $1.8 billion. Recently, a DOE laboratory developed a prototype window that loses less heat than a wall! Other example include the development of high-energy lithium batteries, which enabled the explosive growth of the multi-billion dollar portable electronics industry, which includes items like lap-top computers. A final example that almost all Americans now have in their homes is the development of a new refrigerator compressor that saved energy consumers $6 billion in energy costs from 1980 to 1990 alone.

Because of these success stories and others, the energy efficiency and renewables programs of the Department are tremendously popular with the public. In poll after poll, when asked what the highest priority should be in the Department of Energy, an overwhelming majority of Americans favors the energy efficiency and renewables programs. In addition, when asked to make a choice between decreasing the deficit or funding these programs, poll respondents heavily favor going into further debt rather than cutting off these valuable programs that they feel will lead to a higher standard of living for themselves and their children. The President and Demo-

crats share the views of the public, and are working hard to protect these programs that are so important to the economy and to the environment.

To cover their tracks, the Republican Majority says that they are increasing basic science and university research. However, the Democratic Substitute is better for basic research at DOE than the House-passed authorization numbers now in effect. Specifically, when compared with H.R. 2405, the Administration provides $60 million more for high energy and nuclear physics research and roughly $50 million more for basic research within the Energy Supply R&D account, which H.R. 2405 would cut by $300 million from the President's request (from $2.9 million to $2.6 million).

In total, the Administration provides almost $800 million more for energy R&D than does H.R. 2405. The President includes $2.9 billion for Energy Supply, $1 billion for high energy and nuclear physics; $350 million for fossil energy; and $540 million for conservation R&D for a total of $4.8 billion as opposed to the total of $4 billion authorized in H.R. 2405.

The Democratic substitute provided the President's request for fusion energy R&D. Many Members of the Science Committee, on both sides of the aisle, signed a letter in April, 1996 to Energy Secretary O'Leary requesting a funding level $10 million higher than was eventually contained in the President's budget. The Democratic substitute also provided full funding for such key initiatives as the Partnership for a New Generation of Vehicles, the Environmental Technologies Initiative, the U.S. Global Change Research Program, and the High Performance Computing and Communications program at DOE.

With their party-line vote on the Democratic substitute, Republicans were clearly intent on making drastic and unwise cuts in energy R&D. Once again, the Majority has put tax cuts for the wealthy ahead of programs that will promote the economy, high-tech jobs, international security, and environmental protection.

Conclusion

The Republican proposal for civilian science and technology programs represents a withdrawal from this generation's obligation to the next to insure that we make investments in new knowledge and technologies. Hiding behind the myth that they like basic research, Republicans ban specific types of research they fear. Hiding behind the myth that they are simply trying to balance the budget, Republicans slash civilian science and technology programs far beyond the demands of fiscal prudence. Hiding behind the myth that they oppose corporate pork, the Republicans hand out billions in regulatory and tax benefits to big industry while cutting millions of dollars in technology development programs that help bring new ideas and new firms into the market. All of this was done in a process that counts on limited time, knowledge and opportunity for debate to guarantee that the Chairman's bill cannot be improved or challenged. The new Republican majority, in a perfect analogue to their attitudes on certain types of research, would prefer to move a bill with little or no hearings record and with little notice or knowledge, because it is easier to make unwise cuts if you don't understand the first thing about the programs that you are cutting.

The Republicans of the Science Committee endorse the "hear no evil, see no evil, speak no evil" approach to legislation.

The Democratic alternative is as good for "basic research" as the Republican bill, but we also maintain funding in technology development and environmental research programs. Having no fear of new knowledge, the Democratic alternative contains not a single research ban. The Democratic alternative fully supports important, cross-agency Presidential initiatives—many of which were established under President Bush and which in a more bipartisan era received substantial Republican support. On balance, the Democratic alternative represents a stronger vote of confidence in our Nation's future expressed through fuller funding of R&D programs—all within the context of balancing the budget. We think we have a better idea and we hope our colleagues will set aside partisan considerations and join us in acting in the Nation's interests.

GEORGE BROWN, JR.
HAROLD VOLKMER
BART GORDON
JOHN TANNER
TIM ROEMER
ROBERT E. "BUD" CRAMER
PAUL MCHALE
JANE HARMAN
EDDIE BERNICE JOHNSON
JOHN OLVER
ALCEE HASTINGS
LYNN RIVERS
KAREN MCCARTHY
MIKE WARD
ZOE LOFGREN
SHEILA JACKSON LEE
LLOYD DOGGETT
MIKE DOYLE

XV. PROCEEDINGS OF FULL COMMITTEE MARKUP

FULL COMMITTEE MARKUP ON H.R. 3322—THE OMNIBUS CIVILIAN SCIENCE AUTHORIZATION ACT OF 1996

WEDNESDAY, APRIL 24, 1996

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC.

The CHAIRMAN. Pursuant to notice, the Committee will now consider the Omnibus Civilian Science Authorization Act of 1996, the Committee Print.

I ask unanimous consent the bill be considered as read and open to amendment by Title. I ask the members proceed with amendments in the order of the roster.

[Text of the amendment roster and the bill follow:]

COMMITTEE ON SCIENCE
FULL COMMITTEE MARKUP
APRIL 24, 1996

AMENDMENT ROSTER

The Omnibus Civilian Science Authorization Act of 1996.
--Motions to adopt the bill, as amended - Adopted by a roll call vote: Y-24; N-19
--Motion to order the bill reported - Adopted by a voice vote
--Motion to include summary charts in the legislative report - Adopted by a voice vote

No.	Sponsor	Description	Results
1.	Mr.. Brown	Amendment in the Nature of a Substitute	--Defeated by a roll call vote: Y-21; N-27
Title I -- National Science Foundation			
No.	**Sponsor**	**Description**	**Results**
2.	Mr. Cramer	Amendment calls for the development of a reorganization plan for reducing administrative costs.	--Defeated by a roll call vote: Y-19; N-24
3.	Mr. Barton	Rename the National Science Foundation and the National Science Board to: National Science and Engineering Foundation and the National Science and Engineering Board, respectively.	--Adopted by a roll call vote: Y-23; N-22
Title II – National Aeronautics and Space Administration			
No.	**Sponsor**	**Description**	**Results**
4.	Mr. Roemer	Amendment to cancel the Space Station.	--Defeated by a roll call vote: Y-11; N-33
5.	Mr. Roemer	Amendment to reduce funding for the Space Station.	--Defeated by a roll call vote: Y-12; N-32
6.	Mr. Bartlett & Ms. Harman	Amendment removes the provision which prohibits excess funds from being obligated to Mission to Planet Earth.	--Adopted by a voice vote
6(a)	Ms. Jackson Lee	Amendment adds a new section to the bill on Earth Observation System Implementation.	--Defeated by a roll call vote: Y-17; N-27

Title III – United States Fire Administration			
No.	**Sponsor**	**Description**	**Results**
Title IV – National Oceanic and Atmospheric Administration			
No.	**Sponsor**	**Description**	**Results**
7.	Mr. Cramer and Mr. Roemer	Substitute amendment to streamline the Weather Service Modernization program.	--Defeated by a roll call vote: Y-17; N-20
8.	Ms. Lofgren	Amendment would restore funding for Global Climate Research.	--Defeated by a roll call vote: Y-15; N-25
9.	Ms. Rivers	Amendment would remove the authorization cap for NOAA.	--Defeated by a roll call vote: Y-18; N-25
Title V – Environmental Protection Agency			
No.	**Sponsor**	**Description**	**Results**
10.	Mr. Graham	Amendment to Title V	--Adopted by a voice vote
Title VI – National Institute of Standards and Technology			
No.	**Sponsor**	**Description**	**Results**
11.	Mr. Tanner	Amendment creates a new section on Industrial Technology Services Authorization of Appropriations	--Point of Order was raised against the amendment --Chair ruled the amendment out of order --See Title X

Title VII – Federal Aviation Administration R, E, & D			
No.	**Sponsor**	**Description**	**Results**
12.	Mr. Tanner	Amendment would: (1) consolidate all of FAA's R&D activities into a single budget account; (2) strengthen the role of FAA's outside advisory committee for R&D; and (3) streamline the National Aviation Research Plan.	--Adopted by a voice vote
Title VIII – National Earthquake Hazards Reduction Program			
No.	**Sponsor**	**Description**	**Results**
		No amendments offered to this Title.	
Title IX – Miscellaneous			
No.	**Sponsor**	**Description**	**Results**
		No amendments offered to this Title.	

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Proposed Title X - Industrial Technology Services Authorization of Appropriations			
No.	**Sponsor**	**Description**	**Results**
13.	Mr. Tanner	Amendment creates a new Title X in the bill on Industrial Technology Services Authorization of Appropriations.	--Defeated by a roll call vote: Y-21; N-21

APRIL 22, 1996

104TH CONGRESS
2D SESSION

H. R. _____

IN THE HOUSE OF REPRESENTATIVES

Mr. WALKER (for himself, Mr. SENSENBRENNER, Mrs. MORELLA, Mr. ROHRABACHER, and Mr. SCHIFF) introduced the following bill; which was referred to the Committee on _____

A BILL

To authorize appropriations for fiscal year 1997 for civilian science activities of the Federal Government, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 "Omnibus Civilian Science Authorization Act of 1996".

6 (b) TABLE OF CONTENTS.—

Sec. 1. Short title; table of contents.

TITLE I—NATIONAL SCIENCE FOUNDATION

Sec. 101. Short title.
Sec. 102. Definitions.

Subtitle A—National Science Foundation Authorization

Sec. 111. Authorization of appropriations.
Sec. 112. Proportional reduction of research and related activities amounts.
Sec. 113. Consultation and representation expenses.
Sec. 114. Reprogramming.

Subtitle B—General Provisions

Sec. 121. Annual report.
Sec. 122. National research facilities.
Sec. 123. Eligibility for research facility awards.
Sec. 124. Administrative amendments.
Sec. 125. Indirect costs.
Sec. 126. Financial disclosure.
Sec. 127. Educational leave of absence for active duty.
Sec. 128. Science Studies Institute.
Sec. 129. Educational impact.
Sec. 130. Divisions of the Foundation.

TITLE II—NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Subtitle A—General Provisions

Sec. 201. Short title.
Sec. 202. Findings.
Sec. 203. Definitions.

Subtitle B—Authorization of Appropriations

CHAPTER 1—AUTHORIZATIONS

Sec. 211. Human space flight.
Sec. 212. Science, aeronautics, and technology.
Sec. 213. Mission support.
Sec. 214. Inspector General.
Sec. 215. Total authorization.
Sec. 216. Office of Commercial Space Transportation Authorization.
Sec. 217. Office of Space Commerce.

CHAPTER 2—RESTRUCTURING THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Sec. 221. Findings.
Sec. 222. Restructuring reports.

CHAPTER 3—LIMITATIONS AND SPECIAL AUTHORITY

Sec. 231. Use of funds for construction.
Sec. 232. Availability of appropriated amounts.
Sec. 233. Reprogramming for construction of facilities.
Sec. 234. Consideration by committees.
Sec. 235. Limitation on obligation of unauthorized appropriations.
Sec. 236. Use of funds for scientific consultations or extraordinary expenses.

Subtitle C—International Space Station

Sec. 241. Findings.
Sec. 242. Commercialization of Space Station.
Sec. 243. Sense of Congress.
Sec. 244. Space Station accounting report.

Subtitle D—Miscellaneous Provisions

Sec. 251. Commercial space launch amendments.
Sec. 252. Requirement for independent cost analysis.
Sec. 253. Office of Space Commerce.
Sec. 254. National Aeronautics and Space Act of 1958 amendments.
Sec. 255. Procurement.
Sec. 256. Additional National Aeronautics and Space Administration facilities.
Sec. 257. Purchase of space science data.
Sec. 258. Plan for Mission to Planet Earth.
Sec. 259. Acquisition of earth remote sensing data.
Sec. 260. Shuttle privatization.
Sec. 261. Launch voucher demonstration program amendments.
Sec. 262. Privatization of microgravity parabolic flight operations.
Sec. 263. Unitary Wind Tunnel Plan Act of 1949 amendments.
Sec. 264. Use of abandoned and underutilized buildings, grounds, and facilities.
Sec. 265. Cost effectiveness calculations.
Sec. 266. Procurement ombudsman.
Sec. 267. Authority to reduce or suspend contract payments based on substantial evidence of fraud.

TITLE III—UNITED STATES FIRE ADMINISTRATION

Sec. 301. Short title.
Sec. 302. Authorization of appropriations.
Sec. 303. Fire safety systems in Army housing.
Sec. 304. Successor fire safety standards.
Sec. 305. Termination or privatization of functions.
Sec. 306. Report on budgetary reduction.

TITLE IV—NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Sec. 401. Short title.
Sec. 402. Definitions.

Subtitle A—Atmospheric, Weather, and Satellite Programs

Sec. 411. National Weather Service.
Sec. 412. Atmospheric research.
Sec. 413. National Environmental Satellite, Data, and Information Service.

Subtitle B—Marine Research

Sec. 421. National Ocean Service.
Sec. 422. Ocean and Great Lakes research.

Subtitle C—Program Support

Sec. 431. Program support.

Subtitle D—Streamlining of Operations

Sec. 441. Programs.
Sec. 442. Limitations on appropriations.
Sec. 443. Termination of the Corps of Commissioned Officers.

Subtitle E—Miscellaneous

Sec. 451. Weather data buoys.
Sec. 452. Duties of the National Weather Service.
Sec. 453. National Oceanographic Partnership Program.

TITLE V—ENVIRONMENTAL PROTECTION AGENCY

Sec. 501. Short title.
Sec. 502. Definitions.
Sec. 503. Authorization of appropriations.
Sec. 504. Scientific research review.
Sec. 505. Graduate student fellowships.
Sec. 506. Science Advisory Board.

TITLE VI—NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Sec. 601. Authorization of appropriations.

TITLE VII—FEDERAL AVIATION ADMINISTRATION RESEARCH, ENGINEERING, AND DEVELOPMENT

Sec. 701. Short title.
Sec. 702. Findings.
Sec. 703. Definitions.
Sec. 704. Management principles.
Sec. 705. Document of April 1, 1996.
Sec. 706. Authorization of appropriations.

TITLE VIII—NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM

Sec. 801. Authorization of appropriations.

TITLE IX—MISCELLANEOUS

Sec. 901. Prohibition of lobbying activities.
Sec. 902. Limitation on appropriations.
Sec. 903. Eligibility for awards.

1 # TITLE I—NATIONAL SCIENCE
2 # FOUNDATION

3 **SEC. 101. SHORT TITLE.**

4 This title may be cited as the "National Science
5 Foundation Authorization Act of 1996".

1 SEC. 102. DEFINITIONS.

2 For purposes of this title—

3 (1) the term "Director" means the Director of
4 the Foundation;

5 (2) the term "Foundation" means the National
6 Science Foundation;

7 (3) the term "institution of higher education"
8 has the meaning given such term in section 1201(a)
9 of the Higher Education Act of 1965;

10 (4) the term "national research facility" means
11 a research facility funded by the Foundation which
12 is available, subject to appropriate policies allocating
13 access, for use by all scientists and engineers affili-
14 ated with research institutions located in the United
15 States; and

16 (5) the term "United States" means the several
17 States, the District of Columbia, the Commonwealth
18 of Puerto Rico, the Virgin Islands, Guam, American
19 Samoa, the Commonwealth of the Northern Mariana
20 Islands, and any other territory or possession of the
21 United States.

22 Subtitle A—National Science
23 Foundation Authorization

24 SEC. 111. AUTHORIZATION OF APPROPRIATIONS.

25 (a) FINDINGS.—The Congress finds that—

1 (1) the programs of the Foundation are impor-
2 tant for the Nation to strengthen basic research and
3 develop human resources in science and engineering,
4 and that those programs should be funded at an
5 adequate level;
6 (2) the primary mission of the Foundation con-
7 tinues to be the support of basic scientific research
8 and science education and the support of research
9 fundamental to the engineering process and engi-
10 neering education; and
11 (3) the Foundation's efforts to contribute to the
12 economic competitiveness of the United States
13 should be in accord with that primary mission.
14 (b) FISCAL YEAR 1997.—There are authorized to be
15 appropriated to the Foundation $3,250,500,000 for fiscal
16 year 1997, which shall be available for the following cat-
17 egories:
18 (1) Research and Related Activities,
19 $2,340,300,000.
20 (2) Education and Human Resources Activities,
21 $600,000,000.
22 (3) Major Research Equipment, $80,000,000.
23 (4) Academic Research Facilities Moderniza-
24 tion, $100,000,000.
25 (5) Salaries and Expenses, $120,000,000.

1 (6) Office of Inspector General. $5,000,000.

2 (7) Headquarters Relocation, $5,200,000.

3 (c) LIMITATION.—Consistent with the amendment
4 made by section 130(a) of this Act, funds appropriated
5 under subsection (b)(1) of this section shall be available
6 to not more than 6 scientific directorates. No funds appro-
7 priated under subsection (b)(1) may be obligated or ex-
8 pended by, for, or through a scientific directorate if funds
9 appropriated under subsection (b)(1) have been obligated
10 or expended for 6 other scientific directorates.

11 **SEC. 112. PROPORTIONAL REDUCTION OF RESEARCH AND**
12 **RELATED ACTIVITIES AMOUNTS.**

13 If the amount appropriated pursuant to section
14 111(b)(1) is less than the amount authorized under that
15 paragraph, the amount available for each scientific direc-
16 torate under that paragraph shall be reduced by the same
17 proportion.

18 **SEC. 113. CONSULTATION AND REPRESENTATION EX-**
19 **PENSES.**

20 From appropriations made under authorizations pro-
21 vided in this title, not more than $10,000 may be used
22 in each fiscal year for official consultation, representation,
23 or other extraordinary expenses at the discretion of the
24 Director. The determination of the Director shall be final

1 and conclusive upon the accounting officers of the Govern-
2 ment.

3 **SEC. 114. REPROGRAMMING.**

4 (a) $500,000 OR LESS.—In any given fiscal year, the
5 Director may transfer appropriated funds among the
6 subcategories of Research and Related Activities, so long
7 as the net funds transferred to or from any subcategory
8 do not exceed $500,000.

9 (b) GREATER THAN $500,000.—In addition, the Di-
10 rector may propose transfers to or from any subcategory
11 exceeding $500,000. An explanation of any proposed
12 transfer under this subsection must be transmitted in
13 writing to the Committee on Science of the House of Rep-
14 resentatives, and the Committees on Labor and Human
15 Resources and Commerce, Science, and Transportation of
16 the Senate. The proposed transfer may be made only when
17 30 calendar days have passed after transmission of such
18 written explanation.

19 Subtitle B—General Provisions

20 **SEC. 121. ANNUAL REPORT.**

21 Section 3(f) of the National Science Foundation Act
22 of 1950 (42 U.S.C. 1862(f)) is amended to read as fol-
23 lows:

24 "(f) The Foundation shall provide an annual report
25 to the President which shall be submitted by the Director

1 to the Congress at the time of the President's annual
2 budget submission. The report shall—
3 "(1) contain a strategic plan, or an update to
4 a previous strategic plan, which—
5 "(A) defines for a three-year period the
6 overall goals for the Foundation and specific
7 goals for each major activity of the Foundation,
8 including each scientific directorate, the edu-
9 cation directorate, and the polar programs of-
10 fice; and
11 "(B) describe how the identified goals re-
12 late to national needs and will exploit new op-
13 portunities in science and technology;
14 "(2) identify the criteria and describe the proce-
15 dures which the Foundation will use to assess
16 progress toward achieving the goals identified in ac-
17 cordance with paragraph (1);
18 "(3) review the activities of the Foundation
19 during the preceding year which have contributed to-
20 ward achievement of goals identified in accordance
21 with paragraph (1) and summarize planned activities
22 for the coming three years in the context of the
23 identified goals, with particular emphasis on the
24 Foundation's planned contributions to major multi-
25 agency research and education initiatives;

1 "(4) contain such recommendations as the
2 Foundation considers appropriate; and
3 "(5) include information on the acquisition and
4 disposition by the Foundation of any patents and
5 patent rights.".

6 **SEC. 122. NATIONAL RESEARCH FACILITIES.**

7 (a) FACILITIES PLAN.—The Director shall provide to
8 Congress annually, as a part of the report required under
9 section 3(f) of the National Science Foundation Act of
10 1950, a plan for the proposed construction of, and repair
11 and upgrades to, national research facilities. The plan
12 shall include estimates of the cost for such construction,
13 repairs, and upgrades, and estimates of the cost for the
14 operation and maintenance of existing and proposed new
15 facilities. For proposed new construction and for major
16 upgrades to existing facilities, the plan shall include fund-
17 ing profiles by fiscal year and milestones for major phases
18 of the construction. The plan shall include cost estimates
19 in the categories of construction, repair, and upgrades for
20 the year in which the plan is submitted to Congress and
21 for not fewer than the succeeding 4 years.

22 (b) LIMITATION ON OBLIGATION OF UNAUTHORIZED
23 APPROPRIATIONS.—No funds appropriated for any project
24 which involves construction of new national research facili-
25 ties or construction necessary for upgrading the capabili-

1 ties of existing national research facilities shall be obli-
2 gated unless the funds are specifically authorized for such
3 purpose by this title or any other Act which is not an ap-
4 propriations Act, or unless the total estimated cost to the
5 Foundation of the construction project is less than
6 $50,000,000. This subsection shall not apply to construc-
7 tion projects approved by the National Science Board
8 prior to June 30, 1995.

9 **SEC. 123. ELIGIBILITY FOR RESEARCH FACILITY AWARDS.**

10 Section 203(b) of the Academic Research Facilities
11 Modernization Act of 1988 is amended by striking the
12 final sentence of paragraph (3) and inserting in lieu there-
13 of the following: "The Director shall give priority to insti-
14 tutions or consortia that have not received such funds in
15 the preceding 5 years, except that this sentence shall not
16 apply to previous funding received for the same multiyear
17 project.".

18 **SEC. 124. ADMINISTRATIVE AMENDMENTS.**

19 (a) NATIONAL SCIENCE FOUNDATION ACT OF 1950
20 AMENDMENTS.—The National Science Foundation Act of
21 1950 (42 U.S.C. 1861 et seq.) is amended—

22 (1) by redesignating the subsection (k) of sec-
23 tion 4 (42 U.S.C. 1863(k)) that was added by sec-
24 tion 108 of the National Science Foundation Au-
25 thorization Act of 1988 as subsection (l);

1 (2) in section 5(e) (42 U.S.C. 1864(e)) by
2 amending paragraph (2) to read as follows:
3 "(2) Any delegation of authority or imposition of con-
4 ditions under paragraph (1) shall be promptly published
5 in the Federal Register and reported to the Committees
6 on Labor and Human Resources and Commerce, Science,
7 and Transportation of the Senate and the Committee on
8 Science of the House of Representatives.";
9 (3) by inserting "be entitled to" between
10 "shall" and "receive", and by inserting ", including
11 traveltime," after "Foundation" in section 14(c) (42
12 U.S.C. 1873(c));
13 (4) by striking section 14(j) (42 U.S.C.
14 1873(j)); and
15 (5) by striking "Atomic Energy Commission" in
16 section 15(a) (42 U.S.C. 1874(a)) and inserting in
17 lieu thereof "Secretary of Energy".
18 (b) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
19 TION ACT, 1976 AMENDMENTS.—Section 6(a) of the Na-
20 tional Science Foundation Authorization Act, 1976 (42
21 U.S.C. 1881a(a)) is amended by striking "social," the
22 first place it appears.
23 (c) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
24 TION ACT OF 1988 AMENDMENTS.—(1) Section
25 117(a)(1)(B)(v) of the National Science Foundation Au-

1 thorization Act of 1988 (42 U.S.C. 1881b(1)(B)(v)) is
2 amended to read as follows:
3 "(v) from schools established outside the several
4 States and the District of Columbia by any agency
5 of the Federal Government for dependents of its em-
6 ployees."
7 (2) Section 117(a)(3)(A) of such Act (42 U.S.C.
8 1881b(3)(A)) is amended by striking "Science and Engi-
9 neering Education" and inserting in lieu thereof "Edu-
10 cation and Human Resources".
11 (d) EDUCATION FOR ECONOMIC SECURITY ACT
12 AMENDMENTS.—Section 107 of Education for Economic
13 Security Act (20 U.S.C. 3917) is repealed.
14 (e) TECHNICAL AMENDMENT.—The second sub-
15 section (g) of section 3 of the National Science Foundation
16 Act of 1950 is repealed.
17 **SEC. 125. INDIRECT COSTS.**
18 (a) MATCHING FUNDS.—Matching funds required
19 pursuant to section 204(a)(2)(C) of the Academic Re-
20 search Facilities Modernization Act of 1988 (42 U.S.C.
21 1862c(a)(2)(C)) shall not be considered facilities costs for
22 purposes of determining indirect cost rates.
23 (b) REPORT.—The Director of the Office of Science
24 and Technology Policy, in consultation with other relevant

1 agencies, shall prepare a report analyzing what steps
2 would be needed to—
3 (1) reduce by 10 percent the proportion of Fed-
4 eral assistance to institutions of higher education
5 that are allocated for indirect costs; and
6 (2) reduce the variance among indirect cost
7 rates of different institutions of higher education,
8 including an evaluation of the relative benefits and bur-
9 dens of each option on institutions of higher education.
10 Such report shall be transmitted to the Congress no later
11 than December 31, 1996.

12 **SEC. 126. FINANCIAL DISCLOSURE.**

13 Persons temporarily employed by or at the Founda-
14 tion shall be subject to the same financial disclosure re-
15 quirements and related sanctions under the Ethics in Gov-
16 ernment Act of 1978 as are permanent employees of the
17 Foundation in equivalent positions.

18 **SEC. 127. EDUCATIONAL LEAVE OF ABSENCE FOR ACTIVE**
19 **DUTY.**

20 In order to be eligible to receive funds from the Foun-
21 dation after September 30, 1996, an institution of higher
22 education must provide that whenever any student of the
23 institution who is a member of the National Guard, or
24 other reserve component of the Armed Forces of the Unit-
25 ed States, is called or ordered to active duty, other than

1 active duty for training, the institution shall grant the
2 member a military leave of absence from their education.
3 Persons on military leave of absence from their institution
4 shall be entitled, upon release from military duty, to be
5 restored to the educational status they had attained prior
6 to their being ordered to military duty without loss of aca-
7 demic credits earned, scholarships or grants awarded, or
8 tuition and other fees paid prior to the commencement of
9 the military duty. It shall be the duty of the institution
10 to refund tuition or fees paid or to credit the tuition and
11 fees to the next semester or term after the termination
12 of the educational military leave of absence at the option
13 of the student.

14 **SEC. 128. SCIENCE STUDIES INSTITUTE.**

15 (a) AMENDMENT.—Section 822 of the National De-
16 fense Authorization Act for Fiscal 1991 (42 U.S.C. 6686)
17 is amended—

18 (1) by striking "Critical Technologies Institute"
19 in the section heading and in subsection (a), and in-
20 serting in lieu thereof "Science Studies Institute";

21 (2) in subsection (b) by striking "As deter-
22 mined by the chairman of the committee referred to
23 in subsection (c), the" and inserting in lieu thereof
24 "The";

1 (3) by striking subsection (c), and redesignating
2 subsections (d), (e), (f), and (g) as subsections (c),
3 (d), (e), and (f), respectively;
4 (4) in subsection (c), as so redesignated by
5 paragraph (3) of this subsection—
6 (A) by inserting "science and" after "de-
7 velopments and trends in" in paragraph (1);
8 (B) by striking "with particular emphasis"
9 in paragraph (1) and all that follows through
10 the end of such paragraph and inserting in lieu
11 thereof "and developing and maintaining rel-
12 evant informational and analytical tools.";
13 (C) by striking "to determine" and all that
14 follows through "technology policies" in para-
15 graph (2) and inserting in lieu thereof "with
16 particular attention to the scope and content of
17 the Federal science and technology research
18 and develop portfolio as it affects interagency
19 and national issues";
20 (D) by amending paragraph (3) to read as
21 follows:
22 "(3) Initiation of studies and analysis of alter-
23 natives available for ensuring the long-term strength
24 of the United States in the development and applica-
25 tion of science and technology, including appropriate

1 roles for the Federal Government, State govern-
2 ments, private industry, and institutions of higher
3 education in the development and application of
4 science and technology.";
5 (E) by inserting "science and" after "Ex-
6 ecutive branch on" in paragraph (4)(A); and
7 (F) by amending paragraph (4)(B) to read
8 as follows:
9 "(B) to the interagency committees and
10 panels of the Federal Government concerned
11 with science and technology.";
12 (5) in subsection (d), as so redesignated by
13 paragraph (3) of this subsection, by striking "sub-
14 section (d)" and inserting in lieu thereof "subsection
15 (c)"; and
16 (6) by amending subsection (f), as so redesig-
17 nated by paragraph (3) of this subsection, to read
18 as follows:
19 "(f) SPONSORSHIP.—The Director of the Office of
20 Science and Technology Policy shall be the sponsor of the
21 Institute.".
22 (b) CONFORMING USAGE.—All references in Federal
23 law or regulations to the Critical Technologies Institute
24 shall be considered to be references to the Science Studies
25 Institute.

1 SEC. 129. EDUCATIONAL IMPACT.

2 (a) FINDINGS.—The Congress finds that—

3 (1) Federal research funds made available to
4 institutions of higher education often create incen-
5 tives for such institutions to emphasize research over
6 undergraduate teaching and to narrow the focus of
7 their graduate programs; and

8 (2) National Science Foundation funds for Re-
9 search and Related Activities should be spent in the
10 manner most likely to improve the quality of under-
11 graduate and graduate education in institutions of
12 higher education.

13 (b) EDUCATIONAL IMPACT.—(1) The impact that a
14 grant or cooperative agreement by the National Science
15 Foundation would have on undergraduate and graduate
16 education at an institution of higher education shall be
17 a factor in any decision whether to award such grant or
18 agreement to that institution.

19 (2) Paragraph (1) shall be effective with respect to
20 any grant or cooperative agreement awarded after Sep-
21 tember 30, 1997.

22 (c) REPORT.—The Director shall provide a plan for
23 the implementation of subsection (b) of this section, no
24 later than December 31, 1996, to the Committee on
25 Science of the House of Representatives and the Commit-

1 tee on Commerce, Science, and Transportation and the
2 Committee on Labor and Human Resources of the Senate.

3 **SEC. 130. DIVISIONS OF THE FOUNDATION.**

4 (a) AMENDMENT.—Section 8 of the National Science
5 Foundation Act of 1950 (42 U.S.C. 1866) is amended by
6 inserting "The Director may appoint, in consultation with
7 the Board, not more than 6 Assistant Directors to assist
8 in managing the Divisions." after "time to time deter-
9 mine.".

10 (b) REPORT.—By November 15, 1996, the Director
11 shall transmit to the Congress a report on the reorganiza-
12 tion of the National Science Foundation required as a re-
13 sult of the amendment made by subsection (a).

14 TITLE II—NATIONAL AERO-
15 NAUTICS AND SPACE ADMIN-
16 ISTRATION

17 Subtitle A—General Provisions

18 **SEC. 201. SHORT TITLE.**

19 This title may be cited as the "National Aeronautics
20 and Space Administration Authorization Act, Fiscal Year
21 1997".

22 **SEC. 202. FINDINGS.**

23 The Congress makes the following findings:

24 (1) The National Aeronautics and Space Ad-
25 ministration should aggressively pursue actions and

1 reforms directed at reducing institutional costs, in-
2 cluding management restructuring, facility consoli-
3 dation, procurement reform, personnel base
4 downsizing, and convergence with other defense and
5 commercial sector systems.

6 (2) While institutional reforms, restructurings,
7 and downsizing hold the slim promise of reconciling
8 the disparity between projected needs of the Na-
9 tional Aeronautics and Space Administration with
10 funding levels requested by the Administration over
11 the next 4 years, such reforms provide no guarantee
12 against cancellation of missions or elimination of
13 centers in the event reform efforts fail to achieve
14 cost reduction targets.

15 (3) The National Aeronautics and Space Ad-
16 ministration must reverse its current trend toward
17 becoming an operational agency, and return to its
18 proud history as the Nation's leader in basic sci-
19 entific air and space research.

20 (4) Commercial space activity is in a delicate
21 state of growth. It has the potential to eclipse Fed-
22 eral space activity in its economic return to the Na-
23 tion, if it is not stifled.

24 (5) The United States is on the verge of creat-
25 ing and using new technologies in microsatellites, in-

1 formation processing, and space launches that could
2 radically alter the manner in which the Government
3 approaches its space mission.

4 (6) The overwhelming preponderance of the
5 Federal Government's requirements for routine, non-
6 emergency manned and unmanned space transpor-
7 tation can be met most effectively, efficiently, and
8 economically by a free and competitive market in
9 privately developed and operated launch services.

10 (7) In formulating a national space transpor-
11 tation service policy, the National Aeronautics and
12 Space Administration should aggressively promote
13 the pursuit by the commercial sector of development
14 of advanced space transportation technologies in-
15 cluding reusable space vehicles, single-stage-to-orbit
16 vehicles, and human space systems.

17 (8) The Federal Government should invest in
18 the types of research and innovative technology in
19 which the United States private sector does not in-
20 vest, while avoiding competition with the activities in
21 which the United States private sector does invest.

22 (9) International cooperation in space explo-
23 ration and science activities serves the United States
24 national interest—

25 (A) when it—

1 (i) reduces the cost of undertaking
2 missions the United States Government
3 would pursue unilaterally;
4 (ii) enables the United States to pur-
5 sue missions that it could not otherwise af-
6 ford to pursue unilaterally; or
7 (iii) enhances United States capabili-
8 ties to use and develop space for the bene-
9 fit of United States citizens; and
10 (B) when it does not—
11 (i) otherwise harm or interfere with
12 the ability of United States private sector
13 firms to develop or explore space commer-
14 cially;
15 (ii) interfere with the ability of Fed-
16 eral agencies to use space to complete their
17 missions;
18 (iii) undermine the ability of United
19 States private enterprise to compete favor-
20 ably with foreign entities in the commercial
21 space arena; or
22 (iv) transfer sensitive or commercially
23 advantageous technologies or knowledge
24 from the United States to other countries
25 or foreign entities except as required by

1 those countries or entities to make their
2 contribution to a multilateral space project
3 in partnership with the United States, or
4 on a quid pro quo basis.

5 (10) The National Aeronautics and Space Ad-
6 ministration and the Department of Defense can co-
7 operate more effectively in leveraging their mutual
8 capabilities to conduct joint space missions that im-
9 prove United States space capabilities and reduce
10 the cost of conducting space missions.

11 (11) The Reusable Launch Vehicle program,
12 and the acquisition by the Federal Government of
13 the vehicle resulting from that program, are nec-
14 essary for the protection of essential security inter-
15 ests for purposes of interpreting the obligations of
16 the United States under the General Agreement on
17 Tariffs and Trade.

18 **SEC. 203. DEFINITIONS.**

19 For purposes of this title—

20 (1) the term "Administrator" means the Ad-
21 ministrator of the National Aeronautics and Space
22 Administration;

23 (2) the term "cost threat" means a potential
24 change to the program baseline documented as a po-

1 tential cost by the Space Station Program Office;
2 and
3 (3) the term "institution of higher education"
4 has the meaning given such term in section 1201(a)
5 of the Higher Education Act of 1965 (20 U.S.C.
6 1141(a)).

7 Subtitle B—Authorization of 8 Appropriations

9 CHAPTER 1—AUTHORIZATIONS

10 **SEC. 211. HUMAN SPACE FLIGHT.**

11 There are authorized to be appropriated to the Na-
12 tional Aeronautics and Space Administration for fiscal
13 year 1997 for Human Space Flight the following amounts:
14 (1) For the Space Station, $1,840,200,000.
15 (2) For Space Shuttle Operations,
16 $2,514,900,000.
17 (3) For Space Shuttle Safety and Performance
18 Upgrades, $636,000,000, including for Construction
19 of Facilities relating to such programs—
20 (A) replacement of LC–39 Pad B Chillers
21 (KSC), $1,800,000;
22 (B) restoration of Pad B Fixed Support
23 Structure Elevator System (KSC), $1,500,000;
24 (C) rehabilitation of 480V Electrical Dis-
25 tribution System, Kennedy Space Center, Ex-

1 ternal Tank Manufacturing Building (MAF),
2 $2,500,000; and
3 (D) restoration of High Pressure Indus-
4 trial Water Plant, Stennis Space Center,
5 $2,500,000.
6 (4) For Payload and Utilization Operations,
7 $271,800,000.
8 (5) For Russian Cooperation, $100,000,000.
9 SEC. 212. SCIENCE, AERONAUTICS, AND TECHNOLOGY.
10 There are authorized to be appropriated to the Na-
11 tional Aeronautics and Space Administration for fiscal
12 year 1997 for Science, Aeronautics, and Technology the
13 following amounts:
14 (1) For Space Science, $2,167,400,000.
15 (2) For Life and Microgravity Sciences and Ap-
16 plications, $498,500,000, of which at least
17 $2,000,000 is reserved for research and early detec-
18 tion systems for breast and ovarian cancer and other
19 women's health issues.
20 (3) For Mission to Planet Earth,
21 $1,028,400,000, of which $50,000,000 shall be for
22 commercial data purchases under section 259(a).
23 Funds authorized by this paragraph may not be ob-
24 ligated to duplicate private sector or other Federal
25 activities or to procure systems to provide data un-

1 less the Administrator certifies to Congress that no
2 private sector entity, or Federal entity other than
3 the National Aeronautics and Space Administration,
4 can provide suitable data in a timely manner. Not-
5 withstanding any other provision of law, funds in ex-
6 cess of those authorized by this paragraph may not
7 be obligated for Mission to Planet Earth.
8 (4) For Space Access and Technology,
9 $711,000,000 of which—
10 (A) $324,700,000 are authorized for Ad-
11 vanced Space Transportation; and
12 (B) $10,000,000 shall be for continuing
13 the Launch Voucher Demonstration Program
14 authorized under section 504 of the National
15 Aeronautics and Space Administration Author-
16 ization Act, Fiscal Year 1993(15 U.S.C. 5803).
17 (5) For Aeronautical Research and Technology,
18 $823,400,000, of which—
19 (A) $354,400,000 are authorized for Re-
20 search and Technology Base activities;
21 (B) $254,300,000 are authorized for High
22 Speed Research;
23 (C) $152,800,000 are authorized for Ad-
24 vanced Subsonic Technology;

1 (D) $23,300,000 are authorized for High-
2 Performance Computing and Communications:
3 and
4 (E) $38,600,000 are authorized for Nu-
5 merical Aerodynamic Simulation.
6 (6) For Mission Communication Services,
7 $410,600,000.
8 (7) For Academic Programs, $95,500,000.
9 **SEC. 213. MISSION SUPPORT.**
10 There are authorized to be appropriated to the Na-
11 tional Aeronautics and Space Administration for fiscal
12 year 1997 for Mission Support the following amounts:
13 (1) For Safety, Reliability, and Quality Assur-
14 ance, $36,700,000.
15 (2) For Space Communication Services,
16 $281,250,000.
17 (3) For Construction of Facilities, including
18 land acquisition, $105,000,000, including the follow-
19 ing:
20 (A) Modernization of Electrical Distribu-
21 tion System, Ames Research Center,
22 $2,400,000.
23 (B) Modification of Aircraft Ramp and
24 Tow Way, Dryden Flight Research Center,
25 $3,000,000.

1 (C) Restoration of Hangar Building 4801.
2 Dryden Flight Research Center, $4,500,000.
3 (D) Modernization of Secondary Electrical
4 Systems, Goddard Space Flight Center,
5 $1,500,000.
6 (E) Restoration of Chilled Water Distribu-
7 tion System, Goddard Space Flight Center,
8 $4,000,000.
9 (F) Modification of Refrigeration Systems,
10 Various Buildings, Jet Propulsion Laboratory,
11 $2,800,000.
12 (G) Rehabilitation of Utility Tunnel Struc-
13 ture and Systems, Johnson Space Center,
14 $4,400,000.
15 (H) Replacement of DX Units with
16 Central Chilled Water System, Logistics Facil-
17 ity, Kennedy Space Center, $1,800,000.
18 (I) Rehabilitation of Central Air Equip-
19 ment Building, Lewis Research Center,
20 $6,500,000.
21 (J) Modification of Chilled Water System,
22 Marshall Space Flight Center, $6,700,000.
23 (K) Rehabilitation of Condenser Water
24 System, 202/207 Complex (MAF), $2,100,000.

1 (L) Rehabilitation of Electrical Distribu-
2 tion System, White Sands Test Facility,
3 $2,600,000.
4 (M) Minor Revitalization of Facilities at
5 Various Locations, not in excess of $1,500,000
6 per project, $19,600,000.
7 (N) Minor construction of new facilities
8 and additions to existing facilities at various lo-
9 cations, not in excess of $1,500,000 per project,
10 $3,400,000.
11 (O) Facility planning and design, not oth-
12 erwise provided for, $6,700,000.
13 (P) Environmental compliance and restora-
14 tion, $33,000,000.
15 (4) For Research and Program Management,
16 including personnel and related costs, travel, and re-
17 search operations support, $1,957,850,000.
18 **SEC. 214. INSPECTOR GENERAL.**
19 There are authorized to be appropriated to the Na-
20 tional Aeronautics and Space Administration for Inspector
21 General, $17,000,000 for fiscal year 1997.
22 **SEC. 215. TOTAL AUTHORIZATION.**
23 Notwithstanding any other provision of this subtitle,
24 the total amount authorized to be appropriated to the Na-
25 tional Aeronautics and Space Administration under this

1 title shall not exceed $13,495,500,000 for fiscal year
2 1997.

3 **SEC. 216. OFFICE OF COMMERCIAL SPACE TRANSPOR-**
4 **TATION AUTHORIZATION.**

5 There are authorized to be appropriated to the Sec-
6 retary of Transportation for the activities of the Office
7 of Commercial Space Transportation, $5,770,000 for fis-
8 cal year 1997.

9 **SEC. 217. OFFICE OF SPACE COMMERCE.**

10 There are authorized to be appropriated to the Sec-
11 retary of Commerce for the activities of the Office of
12 Space Commerce established by section 253 of this Act,
13 $500,000 for fiscal year 1997.

14 CHAPTER 2—RESTRUCTURING THE NA-
15 TIONAL AERONAUTICS AND SPACE AD-
16 MINISTRATION

17 **SEC. 221. FINDINGS.**

18 The Congress finds that—

19 (1) the restructuring of the National Aero-
20 nautics and Space Administration is essential to ac-
21 complishing the space missions of the United States
22 while simultaneously balancing the Federal budget;

23 (2) to restructure the National Aeronautics and
24 Space Administration rapidly without reducing mis-

1 sion content and safety requires objective financial
2 judgment; and
3 (3) a formal economic review of its missions
4 and the Federal assets that support them is required
5 in order to plan and implement needed restructuring
6 of the National Aeronautics and Space Administra-
7 tion.

8 **SEC. 222. RESTRUCTURING REPORTS.**

9 (a) IMPLEMENTATION REPORT.—The Administrator
10 shall transmit to Congress, no later than July 31, 1996,
11 a report on its restructuring activities by fiscal year con-
12 taining, at a minimum, a description of all actions taken
13 or planned to be taken after July 31, 1995, and before
14 October 1, 2002, including contracts terminated or con-
15 solidated; reductions in force; relocations of personnel and
16 facilities; sales, closures, or mothballing of capital assets
17 or facilities; and net savings to be realized from such ac-
18 tions by fiscal year.

19 (b) PROPOSED LEGISLATION.—The President shall
20 propose to Congress, not later than September 30, 1996,
21 all enabling legislation required to carry out actions de-
22 scribed by the Administrator's report under subsection
23 (a).

1 CHAPTER 3—LIMITATIONS AND SPECIAL
2 AUTHORITY

3 SEC. 231. USE OF FUNDS FOR CONSTRUCTION.

4 (a) AUTHORIZED USES.—Funds appropriated under
5 sections 211(1) through (5), 212, and 213(1) and (2), and
6 funds appropriated for research operations support under
7 section 213(4), may be used for the construction of new
8 facilities and additions to, repair of, rehabilitation of, or
9 modification of existing facilities at any location in support
10 of the purposes for which such funds are authorized.

11 (b) LIMITATION.—None of the funds pursuant to
12 subsection (a) may be expended for a project, the esti-
13 mated cost of which to the National Aeronautics and
14 Space Administration, including collateral equipment, ex-
15 ceeds $500,000, until 30 days have passed after the Ad-
16 ministrator has notified the Committee on Science of the
17 House of Representatives and the Committee on Com-
18 merce, Science, and Transportation of the Senate of the
19 nature, location, and estimated cost to the National Aero-
20 nautics and Space Administration of such project.

21 (c) TITLE TO FACILITIES.—If funds are used pursu-
22 ant to subsection (a) for grants to institutions of higher
23 education, or to nonprofit organizations whose primary
24 purpose is the conduct of scientific research, for purchase
25 or construction of additional research facilities, title to

1 such facilities shall be vested in the United States unless
2 the Administrator determines that the national program
3 of aeronautical and space activities will best be served by
4 vesting title in the grantee institution or organization.
5 Each such grant shall be made under such conditions as
6 the Administrator shall determine to be required to ensure
7 that the United States will receive therefrom benefits ade-
8 quate to justify the making of that grant.

9 **SEC. 232. AVAILABILITY OF APPROPRIATED AMOUNTS.**

10 To the extent provided in appropriations Acts, appro-
11 priations authorized under chapter 1 may remain available
12 without fiscal year limitation.

13 **SEC. 233. REPROGRAMMING FOR CONSTRUCTION OF FA-**
14 **CILITIES.**

15 (a) IN GENERAL.—Appropriations authorized under
16 any paragraph of section 211(6) or 213(3)—
17 (1) may be varied upward by 10 percent in the
18 discretion of the Administrator; or
19 (2) may be varied upward by 25 percent, to
20 meet unusual cost variations, after the expiration of
21 15 days following a report on the circumstances of
22 such action by the Administrator to the Committee
23 on Science of the House of Representatives and the
24 Committee on Commerce, Science, and Transpor-
25 tation of the Senate.

1 The aggregate amount authorized to be appropriated
2 under sections 211(6) and 213(3) shall not be increased
3 as a result of actions authorized under paragraphs (1) and
4 (2) of this subsection.

5 (b) SPECIAL RULE.—Where the Administrator deter-
6 mines that new developments in the national program of
7 aeronautical and space activities have occurred; and that
8 such developments require the use of additional funds for
9 the purposes of construction, expansion, or modification
10 of facilities at any location; and that deferral of such ac-
11 tion until the enactment of the next National Aeronautics
12 and Space Administration Authorization Act would be in-
13 consistent with the interest of the Nation in aeronautical
14 and space activities, the Administrator may use up to
15 $10,000,000 of the amounts authorized under section
16 211(6) or 213(3) for each fiscal year for such purposes.
17 No such funds may be obligated until a period of 30 days
18 has passed after the Administrator has transmitted to the
19 Committee on Commerce, Science, and Transportation of
20 the Senate and the Committee on Science of the House
21 of Representatives a written report describing the nature
22 of the construction, its costs, and the reasons therefor.

23 **SEC. 234. CONSIDERATION BY COMMITTEES.**

24 Notwithstanding any other provision of law—

1 (1) no amount appropriated to the National
2 Aeronautics and Space Administration may be used
3 for any program for which the President's annual
4 budget request included a request for funding, but
5 for which the Congress denied or did not provide
6 funding;
7 (2) no amount appropriated to the National
8 Aeronautics and Space Administration may be used
9 for any program in excess of the amount actually
10 authorized for the particular program under this
11 subtitle; and
12 (3) no amount appropriated to the National
13 Aeronautics and Space Administration may be used
14 for any program which has not been presented to
15 the Congress in the President's annual budget re-
16 quest or the supporting and ancillary documents
17 thereto,
18 unless a period of 30 days has passed after the receipt
19 by the Committee on Science of the House of Representa-
20 tives and the Committee on Commerce, Science, and
21 Transportation of the Senate of notice given by the Ad-
22 ministrator containing a full and complete statement of
23 the action proposed to be taken and the facts and cir-
24 cumstances relied upon in support of such proposed ac-
25 tion. The National Aeronautics and Space Administration

1 shall keep the Committee on Science of the House of Rep-
2 resentatives and the Committee on Commerce, Science,
3 and Transportation of the Senate fully and currently in-
4 formed with respect to all activities and responsibilities
5 within the jurisdiction of those committees. Except as oth-
6 erwise provided by law, any Federal department, agency,
7 or independent establishment shall furnish any informa-
8 tion requested by either committee relating to any such
9 activity or responsibility.

10 **SEC. 235. LIMITATION ON OBLIGATION OF UNAUTHORIZED**
11 **APPROPRIATIONS.**

12 (a) REPORTS TO CONGRESS.—Not later than 30 days
13 after the later of the date of enactment of an Act making
14 appropriations to the National Aeronautics and Space Ad-
15 ministration for fiscal year 1997 and the date of enact-
16 ment of this Act, the Administrator shall submit a report
17 to Congress and to the Comptroller General which speci-
18 fies—

19 (1) the portion of such appropriations which are
20 for programs, projects, or activities not authorized
21 under chapter 1 of this subtitle, or which are in ex-
22 cess of amounts authorized for the relevant program,
23 project, or activity under this title; and

24 (2) the portion of such appropriations which are
25 authorized under this title.

1 (b) FEDERAL REGISTER NOTICE.—The Adminis-
2 trator shall, coincident with the submission of the report
3 required by subsection (a), publish in the Federal Register
4 a notice of all programs, projects, or activities for which
5 funds are appropriated but which were not authorized
6 under this title, and solicit public comment thereon re-
7 garding the impact of such programs, projects, or activi-
8 ties on the conduct and effectiveness of the national aero-
9 nautics and space program.

10 (c) LIMITATION.—Notwithstanding any other provi-
11 sion of law, no funds may be obligated for any programs,
12 projects, or activities of the National Aeronautics and
13 Space Administration for fiscal year 1997 not authorized
14 under this title until 30 days have passed after the close
15 of the public comment period contained in the notice re-
16 quired in subsection (b).

17 **SEC. 236. USE OF FUNDS FOR SCIENTIFIC CONSULTATIONS**
18 **OR EXTRAORDINARY EXPENSES.**

19 Not more than $30,000 of the funds appropriated
20 under section 212 may be used for scientific consultations
21 or extraordinary expenses, upon the authority of the Ad-
22 ministrator.

1 **Subtitle C—International Space**
2 **Station**

3 **SEC. 241. FINDINGS.**

4 The Congress finds that—

5 (1) the development, assembly, and operation of
6 the International Space Station is in the national in-
7 terest of the United States;

8 (2) the National Aeronautics and Space Admin-
9 istration has restructured and redesigned the Inter-
10 national Space Station, consolidated contract re-
11 sponsibility, and achieved program management,
12 control, and stability;

13 (3) the significant involvement by private ven-
14 tures in marketing and using, competitively servic-
15 ing, and commercially augmenting the operational
16 capabilities of the International Space Station dur-
17 ing its assembly and operational phases will lower
18 costs and increase benefits to the international part-
19 ners;

20 (4) further rescoping or redesigns of the Inter-
21 national Space Station will lead to costly delays, in-
22 crease costs to its international partners, discourage
23 commercial involvement, and weaken the inter-
24 national space partnership necessary for future
25 space projects;

1 (5) total program costs for development, assem-
2 bly, and initial operations have been identified and
3 capped to ensure financial discipline and maintain
4 program schedule milestones;
5 (6) in order to contain costs, mission planning
6 and engineering functions of the National Space
7 Transportation System (Space Shuttle) program
8 should be coordinated with the Space Station Pro-
9 gram Office;
10 (7) the International Space Station represents
11 an important component of an adequately funded
12 civil space program which balances human space
13 flight with science, aeronautics, and technology;
14 (8) the International Space Station should be
15 an inspiration to society, particularly our young peo-
16 ple, and should provide new and expanded opportu-
17 nities to meet important educational goals; and
18 (9) when completed, the International Space
19 Station will be the largest, most capable micro-
20 gravity research facility ever developed. It will pro-
21 vide a lasting framework for conducting large-scale
22 science programs with international partners and it
23 is the next step in the human exploration of space.
24 The United States should commit to completing this

1 program, thereby reaping the benefits of scientific
2 research and international cooperation.

3 **SEC. 242. COMMERCIALIZATION OF SPACE STATION.**

4 (a) POLICY.—The Congress declares that a priority
5 goal of constructing the International Space Station is the
6 economic development of Earth orbital space. The Con-
7 gress further declares that the use of free market prin-
8 ciples in operating, allocating the use of, and adding capa-
9 bilities to the Space Station, and the resulting fullest pos-
10 sible engagement of commercial providers and participa-
11 tion of commercial users, will reduce Space Station oper-
12 ational costs for all partners and the Federal Govern-
13 ment's share of the United States burden to fund oper-
14 ations.

15 (b) REPORT.—The Administrator shall deliver to the
16 Congress, within 60 days after the date of the enactment
17 of this Act, a market study that examines the role of com-
18 mercial ventures which could supply, use, service, or aug-
19 ment the International Space Station, the specific policies
20 and initiatives the Administrator is advancing to encour-
21 age these commercial opportunities, the cost savings to be
22 realized by the international partnership from applying
23 commercial approaches to cost-shared operations, and the
24 cost reimbursements to the United States Federal Govern-
25 ment from commercial users of the Space Station.

1 **SEC. 243. SENSE OF CONGRESS.**

2 It is the sense of Congress that the "cost incentive
3 fee" single prime contract negotiated by the National Aer-
4 onautics and Space Administration for the International
5 Space Station, and the consolidation of programmatic and
6 financial accountability into a single Space Station Pro-
7 gram Office, are two examples of reforms for the
8 reinvention of all National Aeronautics and Space Admin-
9 istration programs that should be applied as widely and
10 as quickly as possible throughout the Nation's civil space
11 program.

12 **SEC. 244. SPACE STATION ACCOUNTING REPORT.**

13 (a) ANNUAL REPORT TO THE CONGRESS.—The Ad-
14 ministrator shall transmit a report to the Congress each
15 year containing a complete accounting of all costs of the
16 space station, including cash and other payments to Rus-
17 sia.

18 (b) QUARTERLY REPORTS FROM RUSSIA.—The Ad-
19 ministrator shall obtain quarterly reports from the Rus-
20 sian Space Agency during the term of the contract be-
21 tween the Russian Space Agency and the National Aero-
22 nautics and Space Administration which fully account for
23 the disposition of funds paid or transferred by the Na-
24 tional Aeronautics and Space Administration to Russia,
25 including—

1 (1) the amount of funds received from the Na-
2 tional Aeronautics and Space Administration and
3 the date of their receipt;
4 (2) the amount of funds converted from United
5 States currency by the Russian Space Agency, the
6 currency into which the funds have been converted,
7 and the dates and exchange rates of each such con-
8 version;
9 (3) the amount of non-United States currency,
10 and of United States currency, disbursed by the
11 Russian Space Agency to any contractor or sub-
12 contractor, the identity of such contractor or sub-
13 contractor, and the date on which the funds were
14 disbursed; and
15 (4) the balance of the funds provided by the
16 National Aeronautics and Space Administration
17 which have not been disbursed by the Russian Space
18 Agency as of the date of the report.

19 **Subtitle D—Miscellaneous**
20 **Provisions**

21 **SEC. 251. COMMERCIAL SPACE LAUNCH AMENDMENTS.**
22 (a) AMENDMENTS.—Chapter 701 of title 49, United
23 States Code, is amended—
24 (1) in the table of sections—

1 (A) by amending the item relating to sec-
2 tion 70104 to read as follows:

"70104. Restrictions on launches, operations, and reentries.";

3 (B) by amending the item relating to sec-
4 tion 70108 to read as follows:

"70108. Prohibition, suspension, and end of launches, operation of launch sites and reentry sites, and reentries.";

5 and
6 (C) by amending the item relating to sec-
7 tion 70109 to read as follows:

"70109. Preemption of scheduled launches or reentries.";

8 (2) in section 70101—
9 (A) by inserting "microgravity research,"
10 after "information services," in subsection
11 (a)(3);
12 (B) by inserting ", reentry," after "launch-
13 ing" both places it appears in subsection (a)(4);
14 (C) by inserting ", reentry vehicles," after
15 "launch vehicles" in subsection (a)(5);
16 (D) by inserting "and reentry services"
17 after "launch services" in subsection (a)(6);
18 (E) by inserting ", reentries," after
19 "launches" both places it appears in subsection
20 (a)(7);
21 (F) by inserting ", reentry sites," after
22 "launch sites" in subsection (a)(8);

(G) by inserting "and reentry services" after "launch services" in subsection (a)(8);

(H) by inserting "reentry sites," after "launch sites," in subsection (a)(9);

(I) by inserting "and reentry site" after "launch site" in subsection (a)(9);

(J) by inserting "reentry vehicles," after "launch vehicles" in subsection (b)(2);

(K) by striking "launch" in subsection (b)(2)(A);

(L) by inserting "and reentry" after "commercial launch" in subsection (b)(3);

(M) by striking "launch" after "and transfer commercial" in subsection (b)(3); and

(N) by inserting "and development of reentry sites," after "launch-site support facilities," in subsection (b)(4);

(3) in section 70102—

(A) by striking "and any payload" and inserting in lieu thereof "or reentry vehicle and any payload from Earth" in paragraph (3);

(B) by inserting "or reentry vehicle" after "means of a launch vehicle" in paragraph (8);

1 (C) by redesignating paragraphs (10)
2 through (12) as paragraphs (14) through (16),
3 respectively;
4 (D) by inserting after paragraph (9) the
5 following new paragraphs:
6 "(10) 'reenter' and 'reentry' mean to return or
7 attempt to return, purposefully, a reentry vehicle
8 and its payload, if any, from Earth orbit or from
9 outer space to Earth.
10 "(11) 'reentry services' means—
11 "(A) activities involved in the preparation
12 of a reentry vehicle and its payload, if any, for
13 reentry; and
14 "(B) the conduct of a reentry.
15 "(12) 'reentry site' means the location on Earth
16 to which a reentry vehicle is intended to return (as
17 defined in a license the Secretary issues or transfers
18 under this chapter).
19 "(13) 'reentry vehicle' means a vehicle designed
20 to return from Earth orbit or outer space to Earth,
21 or a reusable launch vehicle designed to return from
22 outer space substantially intact."; and
23 (E) by inserting "or reentry services" after
24 "launch services" each place it appears in para-

1 graph (15), as so redesignated by subparagraph
2 (C) of this paragraph;
3 (4) in section 70103(b)—
4 (A) by inserting "AND REENTRIES" after
5 "LAUNCHES" in the subsection heading;
6 (B) by inserting "and reentries" after
7 "space launches" in paragraph (1); and
8 (C) by inserting "and reentry" after
9 "space launch" in paragraph (2);
10 (5) in section 70104—
11 (A) by amending the section designation
12 and heading to read as follows:
13 **"§ 70104. Restrictions on launches, operations, and**
14 **reentries";**
15 (B) by inserting "or reentry site, or to re-
16 enter a reentry vehicle," after "operate a
17 launch site" each place it appears in subsection
18 (a);
19 (C) by inserting "or reentry" after "launch
20 or operation" in subsection (a)(3) and (4);
21 (D) in subsection (b)—
22 (i) by striking "launch license" and
23 inserting in lieu thereof "license";
24 (ii) by inserting "or reenter" after
25 "may launch"; and

1 (iii) by inserting "or reentering" after
2 "related to launching"; and
3 (E) in subsection (c)—
4 (i) by amending the subsection head-
5 ing to read as follows: "PREVENTING
6 LAUNCHES AND REENTRIES.—";
7 (ii) by inserting "or reentry" after
8 "prevent the launch"; and
9 (iii) by inserting "or reentry" after
10 "decides the launch";
11 (6) in section 70105—
12 (A) by inserting "or a reentry site, or the
13 reentry of a reentry vehicle," after "operation
14 of a launch site" in subsection (b)(1); and
15 (B) by striking "or operation" and insert-
16 ing in lieu thereof ", operation, or reentry" in
17 subsection (b)(2)(A);
18 (7) in section 70106(a)—
19 (A) by inserting "or reentry site" after
20 "observer at a launch site";
21 (B) by inserting "or reentry vehicle" after
22 "assemble a launch vehicle"; and
23 (C) by inserting "or reentry vehicle" after
24 "with a launch vehicle";
25 (8) in section 70108—

1 (A) by amending the section designation
2 and heading to read as follows:
3 **"§ 70108. Prohibition, suspension, and end of**
4 **launches, operation of launch sites and**
5 **reentry sites, and reentries";**
6 and
7 (B) in subsection (a)—
8 (i) by inserting "or reentry site, or re-
9 entry of a reentry vehicle," after "oper-
10 ation of a launch site"; and
11 (ii) by inserting "or reentry" after
12 "launch or operation";
13 (9) in section 70109—
14 (A) by amending the section designation
15 and heading to read as follows:
16 **"§ 70109. Preemption of scheduled launches or reen-**
17 **tries";**
18 (B) in subsection (a)—
19 (i) by inserting "or reentry" after
20 "ensure that a launch";
21 (ii) by inserting ", reentry site," after
22 "United States Government launch site";
23 (iii) by inserting "or reentry date
24 commitment" after "launch date commit-
25 ment";

(iv) by inserting "or reentry" after "obtained for a launch";

(v) by inserting ", reentry site," after "access to a launch site";

(vi) by inserting ", or services related to a reentry," after "amount for launch services"; and

(vii) by inserting "or reentry" after "the scheduled launch"; and

(C) in subsection (c), by inserting "or reentry" after "prompt launching";

(10) in section 70110—

(A) by inserting "or reentry" after "prevent the launch" in subsection (a)(2); and

(B) by inserting "or reentry site, or reentry of a reentry vehicle," after "operation of a launch site" in subsection (a)(3)(B);

(11) in section 70111—

(A) by inserting "or reentry" after "launch" in subsection (a)(1)(A);

(B) by inserting "and reentry services" after "launch services" in subsection (a)(1)(B);

(C) by inserting "or reentry services" after "or launch services" in subsection (a)(2);

1 (D) by inserting "or reentry" after "com-
2 mercial launch" both places it appears in sub-
3 section (b)(1);
4 (E) by inserting "or reentry services" after
5 "launch services" in subsection (b)(2)(C);
6 (F) by striking "or its payload for launch"
7 in subsection (d) and inserting in lieu thereof
8 "or reentry vehicle, or the payload of either, for
9 launch or reentry"; and
10 (G) by inserting ", reentry vehicle," after
11 "manufacturer of the launch vehicle" in sub-
12 section (d);
13 (12) in section 70112—
14 (A) by inserting "or reentry" after "one
15 launch" in subsection (a)(3);
16 (B) by inserting "or reentry services" after
17 "launch services" in subsection (a)(4);
18 (C) by inserting "or reentry services" after
19 "launch services" each place it appears in sub-
20 section (b);
21 (D) by inserting "applicable" after "car-
22 ried out under the" in paragraphs (1) and (2)
23 of subsection (b);
24 (E) by striking ", Space, and Technology"
25 in subsection (d)(1);

(F) by inserting "OR REENTRIES" after "LAUNCHES" in the heading for subsection (e); and

(G) by inserting "or reentry site or a reentry" after "launch site" in subsection (e);

(13) in section 70113(a)(1) and (d)(1) and (2), by inserting "or reentry" after "one launch" each place it appears;

(14) in section 70115(b)(1)(D)(i)—

(A) by inserting "reentry site," after "launch site,"; and

(B) by inserting "or reentry vehicle" after "launch vehicle" both places it appears; and

(15) in section 70117—

(A) by inserting "or reentry site, or to reenter a reentry vehicle" after "operate a launch site" in subsection (a);

(B) by inserting "or reentry" after "approval of a space launch" in subsection (d);

(C) by amending subsection (f) to read as follows:

"(f) LAUNCH NOT AN EXPORT; REENTRY NOT AN IMPORT.—A launch vehicle, reentry vehicle, or payload that is launched or reentered is not, because of the launch

1 or reentry, an export or import, respectively, for purposes
2 of a law controlling exports or imports."; and
3 (D) in subsection (g)—
4 (i) by striking "operation of a launch
5 vehicle or launch site," in paragraph (1)
6 and inserting in lieu thereof "reentry, op-
7 eration of a launch vehicle or reentry vehi-
8 cle, or operation of a launch site or reentry
9 site,"; and
10 (ii) by inserting "reentry," after
11 "launch," in paragraph (2).
12 (b) ADDITIONAL AMENDMENTS.—(1) Section 70105
13 of title 49, United States Code, is amended—
14 (A) by inserting "(1)" before "A person may
15 apply" in subsection (a);
16 (B) by striking "receiving an application" both
17 places it appears in subsection (a) and inserting in
18 lieu thereof "accepting an application in accordance
19 with criteria established pursuant to subsection
20 (b)(2)(D)";
21 (C) by adding at the end of subsection (a) the
22 following new paragraph:
23 "(2) In carrying out paragraph (1), the Secretary
24 may establish procedures for certification of the safety of
25 a launch vehicle, reentry vehicle, or safety system, proce-

1 dure, service, or personnel that may be used in conducting
2 licensed commercial space launch or reentry activities.";
3 (D) by striking "and" at the end of subsection
4 (b)(2)(B);
5 (E) by striking the period at the end of sub-
6 section (b)(2)(C) and inserting in lieu thereof ";
7 and";
8 (F) by adding at the end of subsection (b)(2)
9 the following new subparagraph:
10 "(D) regulations establishing criteria for ac-
11 cepting or rejecting an application for a license
12 under this chapter within 60 days after receipt of
13 such application."; and
14 (G) by inserting ", or the requirement to obtain
15 a license," after "waive a requirement" in subsection
16 (b)(3).
17 (2) The amendment made by paragraph (1)(B) shall
18 take effect upon the effective date of final regulations is-
19 sued pursuant to section 70105(b)(2)(D) of title 49, Unit-
20 ed States Code, as added by paragraph (1)(F) of this sub-
21 section.
22 (3) Section 70102(5) of title 49, United States Code,
23 is amended—
24 (A) by redesignating subparagraphs (A) and
25 (B) as subparagraphs (B) and (C), respectively; and

1 (B) by inserting before subparagraph (B), as so
2 redesignated by subparagraph (A) of this paragraph,
3 the following new subparagraph:
4 "(A) activities directly related to the prep-
5 aration of a launch site or payload facility for
6 one or more launches;".
7 (4) Section 70103(b) of title 49, United States Code,
8 is amended—
9 (A) in the subsection heading, as amended by
10 subsection (a)(4)(A) of this section, by inserting
11 "AND STATE SPONSORED SPACEPORTS" after "AND
12 REENTRIES"; and
13 (B) in paragraph (1), by inserting "and State
14 sponsored spaceports" after "private sector".
15 (5) Section 70105(a)(1) of title 49, United States
16 Code, as amended by subsection (b)(1) of this section, is
17 amended by inserting at the end the following: "The Sec-
18 retary shall submit to the Committee on Science of the
19 House of Representatives and the Committee on Com-
20 merce, Science, and Transportation of the Senate a writ-
21 ten notice not later than 7 days after any occurrence when
22 a license is not issued within the deadline established by
23 this subsection.".
24 (6) Section 70111 of title 49, United States Code,
25 is amended—

1 (A) in subsection (a)(1), by inserting after sub-
2 paragraph (B) the following:
3 "The Secretary shall establish criteria and procedures for
4 determining the priority of competing requests from the
5 private sector and State governments for property and
6 services under this section.";
7 (B) by striking "actual costs" in subsection
8 (b)(1) and inserting in lieu thereof "additive costs
9 only"; and
10 (C) by inserting after subsection (b)(2) the fol-
11 lowing new paragraph:
12 "(3) The Secretary shall ensure the establishment of
13 uniform guidelines for, and consistent implementation of,
14 this section by all Federal agencies.".
15 (7) Section 70112 of title 49, United States Code,
16 is amended—
17 (A) in subsection (a)(1), by inserting "launch,
18 reentry, or site operator" after "(1) When a";
19 (B) in subsection (b)(1), by inserting "launch,
20 reentry, or site operator" after "(1)A"; and
21 (C) in subsection (f), by inserting "launch, re-
22 entry, or site operator" after "carried out under a".
23 (c) REGULATIONS.—(1) Chapter 701 of title 49,
24 United States Code, is amended by adding at the end the
25 following new section:

1 **"§ 70120. Regulations**

2 "The Secretary of Transportation, within 6 months
3 after the date of the enactment of this section, shall issue
4 regulations to carry out this chapter that include—

5 "(1) guidelines for industry to obtain sufficient
6 insurance coverage for potential damages to third
7 parties;

8 "(2) procedures for requesting and obtaining li-
9 censes to operate a commercial launch vehicle and
10 reentry vehicle;

11 "(3) procedures for requesting and obtaining
12 operator licenses for launch and reentry; and

13 "(4) procedures for the application of govern-
14 ment indemnification.".

15 (2) The table of sections for such chapter 701 is
16 amended by adding after the item relating to section
17 70119 the following new item:

"70120. Regulations.".

18 (d) REPORT TO CONGRESS.—(1) Chapter 701 of title
19 49, United States Code, is further amended by adding at
20 the end the following new section:

21 **"§ 70121. Report to Congress**

22 "The Secretary of Transportation shall submit to
23 Congress an annual report to accompany the President's
24 budget request that—

1 "(1) describes all activities undertaken under
2 this chapter, including a description of the process
3 for the application for and approval of licenses under
4 this chapter and recommendations for legislation
5 that may further commercial launches and reentries;
6 and
7 "(2) reviews the performance of the regulatory
8 activities and the effectiveness of the Office of Com-
9 mercial Space Transportation.".
10 (2) The table of sections for such chapter 701 is fur-
11 ther amended by adding after the item relating to section
12 70120, as added by subsection (c)(2) of this section, the
13 following new item:

"70121. Report to Congress.".

14 **SEC. 252. REQUIREMENT FOR INDEPENDENT COST ANALY-**
15 **SIS.**

16 Before any funds may be obligated for Phase C of
17 a project that is projected to cost more than $75,000,000
18 in total project costs, the Chief Financial Officer for the
19 National Aeronautics and Space Administration shall con-
20 duct an independent cost analysis of such project and shall
21 report the results to Congress. In developing cost account-
22 ing and reporting standards for carrying out this section,
23 the Chief Financial Officer shall, to the extent practicable
24 and consistent with other laws, solicit the advice of exper-

1 tise outside of the National Aeronautics and Space Admin-
2 istration.

3 **SEC. 253. OFFICE OF SPACE COMMERCE.**

4 (a) ESTABLISHMENT.—There is established within
5 the Department of Commerce an Office of Space Com-
6 merce.

7 (b) FUNCTIONS.—The Office of Space Commerce
8 shall be the principal unit for the coordination of space-
9 related issues, programs, and initiatives within the De-
10 partment of Commerce. The Office's primary responsibil-
11 ities shall include—

12 (1) promoting private sector investment in
13 space activities by collecting, analyzing, and dissemi-
14 nating information on space markets, and conduct-
15 ing workshops and seminars to increase awareness
16 of commercial space opportunities;

17 (2) assisting United States commercial provid-
18 ers in their efforts to do business with the United
19 States Government, and acting as an industry advo-
20 cate within the executive branch to ensure that the
21 Federal Government meets its space-related require-
22 ment, to the fullest extent feasible, with commer-
23 cially available space goods and services;

24 (3) ensuring that the United States Govern-
25 ment does not compete with the private sector in the

1 provision of space hardware and services otherwise
2 available from the private sector;
3 (4) promoting the export of space-related goods
4 and services;
5 (5) representing the Department of Commerce
6 in the development of United States policies and in
7 negotiations with foreign countries to ensure free
8 and fair trade internationally in the area of space
9 commerce;
10 (6) seeking the removal of legal, policy, and in-
11 stitutional impediments to space commerce; and
12 (7) licensing private sector parties to operate
13 private remote sensing space systems and supporting
14 the private sector's role in the commercial develop-
15 ment of Landsat remote sensing data distribution.

16 **SEC. 254. NATIONAL AERONAUTICS AND SPACE ACT OF 1958**
17 **AMENDMENTS.**

18 (a) DECLARATION OF POLICY AND PURPOSE.—Sec-
19 tion 102 of the National Aeronautics and Space Act of
20 1958 (42 U.S.C. 2451) is amended—
21 (1) by striking subsection (f) and redesignating
22 subsections (g) and (h) as subsections (f) and (g),
23 respectively; and

1 (2) in subsection (g), as so redesignated by
2 paragraph (1) of this subsection, by striking "(f),
3 and (g)" and inserting in lieu thereof "and (f)".
4 (b) REPORTS TO THE CONGRESS.—Section 206(a) of
5 the National Aeronautics and Space Act of 1958 (42
6 U.S.C. 2476(a)) is amended—
7 (1) by striking "January" and inserting in lieu
8 thereof "May"; and
9 (2) by striking "calendar" and inserting in lieu
10 thereof "fiscal".
11 (c) DISCLOSURE OF TECHNICAL DATA.—Section 303
12 of the National Aeronautics and Space Act of 1958 (42
13 U.S.C. 2454) is amended—
14 (1) in subsection (a)(C), by inserting "or (c)"
15 after "subsection (b)"; and
16 (2) by adding at the end the following new sub-
17 section:
18 "(c)(1) The Administrator, at his discretion or at the
19 request of a private sector entity, shall delay for a period
20 of at least one day, but not to exceed 5 years, the unre-
21 stricted public disclosure of technical data in the posses-
22 sion of, or under the control of, the Administration that
23 has been generated in the performance of experimental,
24 developmental, or research activities or programs funded

1 jointly by the Administration and such private sector en-
2 tity.
3 "(2) Within 1 year after the date of the enactment
4 of the National Aeronautics and Space Administration Au-
5 thorization Act, Fiscal Year 1997, the Administrator shall
6 issue regulations to carry out this subsection. Paragraph
7 (1) shall not take effect until such regulations are issued.
8 "(3) Regulations issued pursuant to paragraph (2)
9 shall include—
10 "(A) guidelines for a determination of whether
11 data is technical data within the meaning of this
12 subsection;
13 "(B) provisions to ensure that technical data is
14 available for dissemination within the United States
15 to United States persons and entities in furtherance
16 of the objective of maintaining leadership or com-
17 petitiveness in civil and governmental aeronautical
18 and space activities by the United States industrial
19 base; and
20 "(C) a specification of the period or periods for
21 which the delay in unrestricted public disclosure of
22 technical data is to apply to various categories of
23 such data, and the restrictions on disclosure of such
24 data during such period or periods, including a re-
25 quirement that the maximum 5-year protection

1 under this subsection shall not be provided unless at
2 least 50 percent of the funding for the activities or
3 programs is provided by the private sector.
4 "(4) The Administrator shall annually report to the
5 Congress all determinations made under paragraph (1).
6 "(5) For purposes of this subsection, the term 'tech-
7 nical data' means any recorded information, including
8 computer software, that is or may be directly applicable
9 to the design, engineering, development, production, man-
10 ufacture, or operation of products or processes that may
11 have significant value in maintaining leadership or com-
12 petitiveness in civil and governmental aeronautical and
13 space activities by the United States industrial base.".
14 **SEC. 255. PROCUREMENT.**
15 (a) PROCUREMENT DEMONSTRATION PROGRAM.—
16 (1) IN GENERAL.—The Administrator shall es-
17 tablish within the Office of Space Access and Tech-
18 nology a program of expedited technology procure-
19 ment for the purpose of demonstrating how innova-
20 tive technology concepts can rapidly be brought to
21 bear upon space missions of the National Aero-
22 nautics and Space Administration.
23 (2) PROCEDURES AND EVALUATION.—The Ad-
24 ministrator shall establish procedures for actively
25 seeking from persons outside the National Aero-

1 nautics and Space Administration innovative tech-
2 nology concepts, relating to the provision of space
3 hardware, technology, or service to the National Aer-
4 onautics and Space Administration.

5 (3) REQUIREMENT.—At least 1 percent of
6 amounts authorized to be appropriated under section
7 212(4) shall be used for innovative technology pro-
8 curements that are determined under paragraph (2)
9 of this subsection to meet mission requirements.

10 (4) SPECIAL AUTHORITY.—In order to carry
11 out this subsection the Administrator shall recruit
12 and hire for limited term appointments persons from
13 outside the National Aeronautics and Space Admin-
14 istration with special expertise and experience relat-
15 ed to the innovative technology concepts with respect
16 to which procurements are made under this sub-
17 section.

18 (5) SUNSET.—This subsection shall cease to be
19 effective 10 years after the date of its enactment.

20 (b) TECHNOLOGY PROCUREMENT INITIATIVE.—

21 (1) IN GENERAL.—The Administrator shall co-
22 ordinate National Aeronautics and Space Adminis-
23 tration resources in the areas of procurement, com-
24 mercial programs, and advanced technology in order
25 to—

1 (A) fairly assess and procure commercially
2 available technology from the marketplace in
3 the most efficient manner practicable;
4 (B) achieve a continuous pattern of inte-
5 grating advanced technology from the commer-
6 cial sector, and from Federal sources outside
7 the National Aeronautics and Space Adminis-
8 tration, into the missions and programs of the
9 National Aeronautics and Space Administra-
10 tion;
11 (C) incorporate private sector buying and
12 bidding procedures, including fixed price con-
13 tracts, into procurements; and
14 (D) provide incentives for cost-plus con-
15 tractors of the National Aeronautics and Space
16 Administration to integrate commercially avail-
17 able technology in subsystem contracts on a
18 fixed-price basis.
19 (2) CERTIFICATION.—Upon solicitation of any
20 procurement for space hardware, technology, or serv-
21 ices that are not commercially available, the Admin-
22 istrator shall certify, by publication of a notice and
23 opportunity to comment in the Commerce Business
24 Daily, for each such procurement action, that no
25 functional equivalent, commercially, available space

1 hardware, technology, or service exists and that no
2 commercial method of procurement in available.

3 **SEC. 256. ADDITIONAL NATIONAL AERONAUTICS AND**
4 **SPACE ADMINISTRATION FACILITIES.**

5 The Administrator shall not construct or enter into
6 a new lease for facilities to support National Aeronautics
7 and Space Administration programs unless the Adminis-
8 trator notifies the Congress that the Administrator re-
9 viewed existing National Aeronautics and Space Adminis-
10 tration and other federally owned facilities, including mili-
11 tary facilities scheduled for closing or reduction, and found
12 no such facilities appropriate for the intended use.

13 **SEC. 257. PURCHASE OF SPACE SCIENCE DATA.**

14 (a) IN GENERAL.—To the maximum extent possible,
15 the National Aeronautics and Space Administration shall,
16 where cost effective, purchase space science data from the
17 United States private sector. Examples of such data in-
18 clude scientific data concerning the elemental and mineral-
19 ogical resources of the moon and the planets, Earth envi-
20 ronmental data obtained through remote sensing observa-
21 tions, and solar storm monitoring.

22 (b) COMPETITIVE BIDDING.—(1) Contracts for the
23 purchase of space data under this section shall be awarded
24 in a process of full, fair, and open competitive bidding.

1 (2) Submission of cost data, either for the purposes
2 of supporting the bid or fulfilling the terms of the con-
3 tract, shall not be required of bidders or awardees of the
4 contract.

5 (3) Reasonable performance specifications, rather
6 than design or construction specifications, shall be used
7 to the maximum extent feasible to define requirements for
8 United States private sector providers with respect to the
9 design, construction, or operation of equipment used in ob-
10 taining space science data under contracts entered into
11 under this section. This subsection shall not be construed
12 to prohibit the Federal Government from requiring com-
13 pliance with applicable safety standards.

14 (4) Contracts under this section shall not provide for
15 the Federal Government to obtain ownership of data not
16 specifically sought by the Federal Government.

17 **SEC. 258. PLAN FOR MISSION TO PLANET EARTH.**

18 (a) REQUIREMENT.—The Administrator shall, within
19 6 months after the date of the enactment of this Act,
20 transmit to the Congress a report containing a plan for
21 Mission to Planet Earth.

22 (b) CONTENTS.—The report required by subsection
23 (a) shall include—

24 (1) an analysis of Earth observation systems of
25 other countries and the ways in which the United

1 States could benefit from such systems, including by
2 eliminating duplication of effort;
3 (2) an analysis of how the Department of De-
4 fense's airborne and space sensor programs could be
5 used in Mission to Planet Earth;
6 (3) a plan for infusing advanced technology into
7 the Mission to Planet Earth program, including
8 milestones and an identification of available re-
9 sources;
10 (4) a plan to solicit proposals from the private
11 sector on how to innovatively accomplish the most
12 critical research on global climate change;
13 (5) an integrated plan for research in the Sci-
14 entific Research and Mission to Planet Earth enter-
15 prises described in the National Aeronautics and
16 Space Administration Strategic Plan issued in May,
17 1994;
18 (6) a plan for developing metrics and milestones
19 to quantify the performance of work on Mission to
20 Planet Earth; and
21 (7) a plan for the role, structure, and operation
22 of the Earth Observing Satellite Data Information
23 System.

1 SEC. 259. ACQUISITION OF EARTH REMOTE SENSING DATA.

2 (a) ACQUISITION.—To the maximum extent possible,
3 the Administrator shall, where cost effective, acquire
4 space-based and airborne Earth remote sensing data, serv-
5 ices, distribution, and applications provided by the United
6 States private sector to meet Government goals for Mis-
7 sion to Planet Earth.

8 (b) STUDY.—(1) The Administrator shall conduct a
9 study to determine the extent to which the baseline sci-
10 entific requirements of Mission to Planet Earth can be
11 met by the private sector, and how the National Aero-
12 nautics and Space Administration will meet such require-
13 ments which cannot be met by the private sector.

14 (2) The study conducted under this subsection
15 shall—

16 (A) make recommendations to promote the
17 availability of information from the National Aero-
18 nautics and Space Administration to the private sec-
19 tor to enable the private sector to better meet the
20 baseline scientific requirements of Mission to Planet
21 Earth;

22 (B) determine and prioritize the appropriate
23 baseline scientific requirements for Mission to Planet
24 Earth, and reevaluate, scientifically justify, and
25 prioritize the data sets necessary to fulfill those
26 baseline scientific requirements;

1 (C) make recommendations to promote the dis-
2 semination to the private sector of information on
3 advanced technology research and development per-
4 formed by or for the National Aeronautics and
5 Space Administration; and
6 (D) identify policy, regulatory, and legislative
7 barriers to the implementation of the recommenda-
8 tions made under this subsection.
9 (3) The results of the study conducted under this
10 subsection shall be transmitted to the Congress within 6
11 months after the date of the enactment of this Act.
12 (c) ADMINISTRATION.—This section shall be carried
13 out as part of the Commercial Remote Sensing Program
14 at the Stennis Space Center.
15 **SEC. 260. SHUTTLE PRIVATIZATION.**
16 (a) POLICY AND PREPARATION.—The Administrator
17 shall prepare for an orderly transition from the Federal
18 operation, or Federal management of contracted oper-
19 ation, of space transportation systems to the Federal pur-
20 chase of commercial space transportation services for all
21 nonemergency launch requirements, including human,
22 cargo, and mixed payloads. In those preparations, the Ad-
23 ministrator shall take into account the need for short-term
24 economies, as well as the goal of restoring the National
25 Aeronautics and Space Administration's research focus

1 and its mandate to promote the fullest possible commercial
2 use of space. As part of those preparations, the Adminis-
3 trator shall plan for the potential privatization of the
4 Space Shuttle program after the year 2012. Such plan
5 shall keep safety and cost effectiveness as high priorities.
6 Nothing in this section shall prohibit the National Aero-
7 nautics and Space Administration from studying, design-
8 ing, developing, or funding upgrades or modifications es-
9 sential to the safe and economical operation of the Space
10 Shuttle fleet.

11 (b) SAFE OPERATION.—In reviewing proposals for
12 moving to a single prime contractor the Administrator
13 shall give priority to continued safe operation of space
14 transportation systems.

15 (c) FEASIBILITY STUDY.—The Administrator shall
16 conduct a study of the feasibility of implementing the rec-
17 ommendation of the Independent Shuttle Management Re-
18 view Team that the National Aeronautics and Space Ad-
19 ministration transition toward the privatization of the
20 Space Shuttle. The study shall identify, discuss, and,
21 where possible, present options for resolving, the major
22 policy and legal issues that must be addressed before the
23 Space Shuttle is privatized, including—

1 (1) whether the Federal Government or the
2 Space Shuttle contractor should own the Space
3 Shuttle orbiters and ground facilities:
4 (2) whether the Federal Government should in-
5 demnify the contractor for any third party liability
6 arising from Space Shuttle operations, and, if so,
7 under what terms and conditions;
8 (3) whether payloads other than National Aero-
9 nautics and Space Administration payloads should
10 be allowed to be launched on the Space Shuttle, how
11 missions will be prioritized, and who will decide
12 which mission flies and when;
13 (4) whether commercial payloads should be al-
14 lowed to be launched on the Space Shuttle and
15 whether any classes of payloads should be made in-
16 eligible for launch consideration;
17 (5) whether National Aeronautics and Space
18 Administration and other Federal Government pay-
19 loads should have priority over non-Federal payloads
20 in the Space Shuttle launch assignments, and what
21 policies should be developed to prioritize among pay-
22 loads generally;
23 (6) whether the public interest requires that
24 certain Space Shuttle functions continue to be per-
25 formed by the Federal Government; and

1 (7) how much cost savings, if any, will be gen-
2 erated by privatization of the Space Shuttle.
3 (d) REPORT TO CONGRESS.—Within 60 days after
4 the date of the enactment of this Act, the National Aero-
5 nautics and Space Administration shall complete the study
6 required under subsection (c) and shall submit a report
7 on the study to the Committee on Commerce, Science, and
8 Transportation of the Senate and the Committee on
9 Science of the House of Representatives.

10 **SEC. 261. LAUNCH VOUCHER DEMONSTRATION PROGRAM**
11 **AMENDMENTS.**

12 Section 504 of the National Aeronautics and Space
13 Administration Authorization Act, Fiscal Year 1993 (15
14 U.S.C. 5803) is amended—
15 (1) in subsection (a)—
16 (A) by striking "the Office of Commercial
17 Programs within"; and
18 (B) by striking "Such program shall not
19 be effective after September 30, 1995.";
20 (2) by striking subsection (c); and
21 (3) by redesignating subsections (d) and (e) as
22 subsections (c) and (d), respectively.

1 **SEC. 262. PRIVATIZATION OF MICROGRAVITY PARABOLIC**
2 **FLIGHT OPERATIONS.**

3 (a) FINDING.—The Congress finds that no national
4 security or mission critical justification exists for the Na-
5 tional Aeronautics and Space Administration to maintain
6 its own fleet of aircraft to provide a short duration micro-
7 gravity environment via parabolic flight.

8 (b) PRIVATIZATION OF FLIGHT OPERATIONS.—(1)
9 The Administrator shall privatize all parabolic flight air-
10 craft operations conducted by or for the National Aero-
11 nautics and Space Administration in support of micro-
12 gravity research, astronaut training, and other functions,
13 whose total cost can be reduced through issuance of one
14 or more long-term, renewable, block purchase contracts
15 for the performance of such operations by United States
16 commercial sector providers.

17 (2) Within 90 days after the date of the enactment
18 of this Act, the Administrator shall issue a request for
19 proposals to provide services which meet all or part of the
20 microgravity flight needs of the National Aeronautics and
21 Space Administration, as described in paragraph (1) at
22 a net savings to the United States Government. The Ad-
23 ministrator shall coordinate the process of review of such
24 proposals, and shall oversee the transfer of such oper-
25 ations to the commercial sector as specified in paragraph
26 (3).

1 (3) Within 6 months after the issuance of a request
2 for proposals under paragraph (2), the Administrator
3 shall, where cost effective, award one or more contracts
4 for microgravity parabolic flight services to a microgravity
5 flight provider that is certified by the Federal Aviation Ad-
6 ministration. Except as provided in paragraph (4), the Ad-
7 ministrator shall cease all National Aeronautics and Space
8 Administration-operated parabolic aircraft flights, and
9 shall thereafter procure all microgravity parabolic flight
10 services from commercial sector providers. National Aero-
11 nautics and Space Administration experimenters, and Na-
12 tional Aeronautics and Space Administration-funded ex-
13 perimenters, who would otherwise use National Aero-
14 nautics and Space Administration-owned or operated
15 microgravity parabolic flight aircraft, shall be issued
16 vouchers for the procurement of microgravity parabolic
17 flight services from the commercial sector.
18 (4) The Administrator may, as necessary to ensure
19 the continuity of National Aeronautics and Space Admin-
20 istration operations, continue to operate parabolic aircraft
21 flights for up to 3 months after a contract is awarded
22 under paragraph (3). If the Administrator continues oper-
23 ations pursuant to this paragraph, the Administrator shall
24 concurrently transmit to the Congress an explanation of
25 the reasons for such action.

1 (5) Six months after the National Aeronautics and
2 Space Administration ceases all parabolic aircraft flights
3 under paragraph (3), the Administrator shall transmit a
4 report to Congress on the effectiveness of privatization
5 under this section.

6 **SEC. 263. UNITARY WIND TUNNEL PLAN ACT OF 1949**
7 **AMENDMENTS.**

8 The Unitary Wind Tunnel Plan Act of 1949 is
9 amended—
10 (1) in section 101 (50 U.S.C. 511) by striking
11 "transsonic and supersonic" and inserting in lieu
12 thereof "transonic, supersonic, and hypersonic"; and
13 (2) in section 103 (50 U.S.C. 513)—
14 (A) by striking "laboratories" in sub-
15 section (a) and inserting in lieu thereof "labora-
16 tories and centers";
17 (B) by striking "supersonic" in subsection
18 (a) and inserting in lieu thereof "transonic, su-
19 personic, and hypersonic"; and
20 (C) by striking "laboratory" in subsection
21 (c) and inserting in lieu thereof "facility".

22 **SEC. 264. USE OF ABANDONED AND UNDERUTILIZED**
23 **BUILDINGS, GROUNDS, AND FACILITIES.**

24 (a) IN GENERAL.—In meeting the needs of the Na-
25 tional Aeronautics and Space Administration for addi-

1 tional facilities, the Administrator, whenever feasible, shall
2 select abandoned and underutilized buildings, grounds,
3 and facilities in depressed communities that can be con-
4 verted to National Aeronautics and Space Administration
5 facilities at a reasonable cost, as determined by the Ad-
6 ministrator.

7 (b) DEFINITIONS.—For purposes of this section, the
8 term "depressed communities" means rural and urban
9 communities that are relatively depressed, in terms of age
10 of housing, extent of poverty, growth of per capita income,
11 extent of unemployment, job lag, or surplus labor.

12 **SEC. 265. COST EFFECTIVENESS CALCULATIONS.**

13 In calculating the cost effectiveness of the cost of the
14 National Aeronautics and Space Administration engaging
15 in an activity as compared to the private sector, the com-
16 parison shall be made based only on the price the private
17 sector provider will charge for such activity.

18 **SEC. 266. PROCUREMENT OMBUDSMAN.**

19 (a) ESTABLISHMENT.—The Administrator shall es-
20 tablish the position of Procurement Ombudsman for the
21 National Aeronautics and Space Administration.

22 (b) FUNCTIONS.—The Procurement Ombudsman
23 shall—

24 (1) be responsible, in consultation with the Of-
25 fice of Procurement, for reviewing proposed new

1 missions for the National Aeronautics and Space
2 Administration to determine if such missions, or ele-
3 ments thereof, can be fulfilled by United States com-
4 mercial providers; and
5 (2) serve as a point of contact for—
6 (A) persons with whom the National Aero-
7 nautics and Space Administration has entered
8 into a procurement contract, with respect to
9 concerns of those persons about that contract;
10 and
11 (B) United States commercial providers,
12 with respect to issues relating to competition
13 between those providers and the Federal Gov-
14 ernment.
15 (c) REPORTS TO CONGRESS.—The Procurement Om-
16 budsman shall annually, in conjunction with the Presi-
17 dent's annual budget request, transmit a report to Con-
18 gress describing the activities of the Ombudsman during
19 the previous year.

20 **SEC. 267. AUTHORITY TO REDUCE OR SUSPEND CONTRACT**
21 **PAYMENTS BASED ON SUBSTANTIAL EVI-**
22 **DENCE OF FRAUD.**

23 Section 2307(h)(8) of title 10, United States Code,
24 is amended by striking "and (4)" and inserting in lieu
25 thereof "(4), and (6)".

TITLE III—UNITED STATES FIRE ADMINISTRATION

SEC. 301. SHORT TITLE.

This title may be cited as the "Fire Administration Authorization Act of 1996".

SEC. 302. AUTHORIZATION OF APPROPRIATIONS.

Section 17(g)(1) of the Federal Fire Prevention and Control Act of 1974 (15 U.S.C. 2216(a)(1)) is amended—

(1) by striking "and" at the end of subparagraph (E);

(2) by striking the period at the end of subparagraph (F) and inserting in lieu thereof "; and"; and

(3) by adding at the end the following new subparagraph:

"(G) $27,560,000 for the fiscal year ending September 30, 1997.".

SEC. 303. FIRE SAFETY SYSTEMS IN ARMY HOUSING.

Section 31(c)(1)(A)(ii)(II) is amended by inserting ", or in the case of housing under the control of the Department of the Army, 6 years after such date of enactment" after "date of enactment".

SEC. 304. SUCCESSOR FIRE SAFETY STANDARDS.

The Federal Fire Prevention and Control Act of 1974 is amended—

1 (1) in section 29(a)(1), by inserting ", or any
2 successor standard thereto," after "Association
3 Standard 74";
4 (2) in section 29(a)(2), by inserting "or any
5 successor standards thereto," after "whichever is ap-
6 propriate,";
7 (3) in section 29(b)(2), by inserting ", or any
8 successor standards thereto" after "Association
9 Standard 13 or 13–R";
10 (4) in section 31(c)(2)(B)(i), by inserting "or
11 any successor standard thereto," after "Life Safety
12 Code),"; and
13 (5) in section 31(c)(2)(B)(ii), by inserting "or
14 any successor standard thereto," after "Association
15 Standard 101,".

16 **SEC. 305. TERMINATION OR PRIVATIZATION OF FUNC-**
17 **TIONS.**

18 The Administrator of the United States Fire Admin-
19 istration shall transmit to Congress a report providing no-
20 tice at least 60 days in advance of the termination or
21 transfer to a private sector entity of any significant func-
22 tion of the United States Fire Administration.

23 **SEC. 306. REPORT ON BUDGETARY REDUCTION.**

24 The Administrator of the United States Fire Admin-
25 istration shall transmit to Congress, within three months

1 after the date of the enactment of this Act, a report set-
2 ting forth the manner in which the United States Fire
3 Administration intends to implement the budgetary reduc-
4 tion represented by the difference between the amount ap-
5 propriated to the United States Fire Administration for
6 fiscal year 1997 and the amount requested in the Presi-
7 dent's budget request for such fiscal year. Such report
8 shall be prepared in consultation with the Alliance for Fire
9 and Emergency Management, the International Associa-
10 tion of Fire Chiefs, the International Association of Fire
11 Fighters, the National Fire Protection Association, the
12 National Volunteer Fire Council, the National Association
13 of State Fire Marshals, and the International Association
14 of Arson Investigators.

15 TITLE IV—NATIONAL OCEANIC 16 AND ATMOSPHERIC ADMINIS- 17 TRATION

18 **SEC. 401. SHORT TITLE.**

19 This title may be cited as the "National Oceanic and
20 Atmospheric Administration Authorization Act of 1996".

21 **SEC. 402. DEFINITIONS.**

22 For the purposes of this title, the term—

23 (1) "Act of 1890" means the Act entitled "An
24 Act to increase the efficiency and reduce the ex-
25 penses of the Signal Corps of the Army, and to

1 transfer the Weather Bureau to the Department of
2 Agriculture", approved October 1, 1890 (26 Stat.
3 653);
4 (2) "Act of 1947" means the Act entitled "An
5 Act to define the functions and duties of the Coast
6 and Geodetic Survey, and for other purposes", ap-
7 proved August 6, 1947 (33 U.S.C. 883a et seq.);
8 (3) "Act of 1970" means the Act entitled "An
9 Act to clarify the status and benefits of commis-
10 sioned officers of the National Oceanic and Atmos-
11 pheric Administration, and for other purposes", ap-
12 proved December 31, 1970 (33 U.S.C. 857–1 et
13 seq.);
14 (4) "Administrator" means the Administrator
15 of the National Oceanic and Atmospheric Adminis-
16 tration; and
17 (5) "Secretary" means the Secretary of Com-
18 merce.

19 Subtitle A—Atmospheric, Weather, 20 and Satellite Programs

21 **SEC. 411. NATIONAL WEATHER SERVICE.**

22 (a) OPERATIONS AND RESEARCH.—There are au-
23 thorized to be appropriated to the Secretary to enable the
24 National Oceanic and Atmospheric Administration to
25 carry out the operations and research duties of the Na-

1 tional Weather Service, $445,668,000 for fiscal year 1997.
2 Such duties include meteorological, hydrological, and
3 oceanographic public warnings and forecasts, as well as
4 applied research in support of such warnings and fore-
5 casts.

6 (b) SYSTEMS ACQUISITION.—(1) There are author-
7 ized to be appropriated to the Secretary to enable the Na-
8 tional Oceanic and Atmospheric Administration to carry
9 out the public warning and forecast systems duties of the
10 National Weather Service, $64,991,000 for fiscal year
11 1997. Such duties include the development, acquisition,
12 and implementation of major public warning and forecast
13 systems, including the upgrade of computer facilities.
14 None of the funds authorized under this subsection shall
15 be used for the purposes for which funds are authorized
16 under subsection (e). None of the funds authorized under
17 this subsection shall be used for the purposes for which
18 funds are authorized under section 102(b) of the National
19 Oceanic and Atmospheric Administration Authorization
20 Act of 1992 (Public Law 102–567). None of the funds
21 authorized by such section 102(b) shall be expended for
22 a particular NEXRAD installation unless—

23 (A) it is identified as a National Weather Serv-
24 ice NEXRAD installation in the National Implemen-
25 tation Plan for modernization of the National

1 Weather Service, required under section 703 of the
2 National Oceanic and Atmospheric Administration
3 Authorization Act of 1992 (Public Law 102–567);
4 or
5 (B) it is to be used only for spare parts, not as
6 an installation at a particular site.
7 (2) Of the amounts authorized under paragraph (1),
8 $42,935,000 shall be for NEXRAD program manage-
9 ment, operations, and maintenance.
10 (c) NEW NEXRAD INSTALLATIONS.—No funds may
11 be obligated for NEXRAD installations not identified in
12 the National Implementation Plan for 1996, unless the
13 Secretary certifies that such NEXRAD installations can
14 be acquired within the authorization of NEXRAD con-
15 tained in section 102(b) of the National Oceanic and At-
16 mospheric Administration Authorization Act of 1992.
17 (d) ASOS PROGRAM AUTHORIZATION.—Of the sums
18 authorized in subsection (b)(1), $10,056,000 for fiscal
19 year 1997 are authorized to be appropriated to the Sec-
20 retary, for the acquisition and deployment of—
21 (1) the Automated Surface Observing System
22 and related systems, including multisensor and
23 backup arrays for National Weather Service sites at
24 airports; and

1 (2) Automated Meteorological Observing Sys-
2 tem and Remote Automated Meteorological Observ-
3 ing System replacement units.
4 and to cover all associated activities, including program
5 management and operations and maintenance.
6 (e) AWIPS COMPLETE PROGRAM AUTHORIZA-
7 TION.—(1) Except as provided in paragraph (2), there are
8 authorized to be appropriated to the Secretary for all fiscal
9 years beginning after September 30, 1996, an aggregate
10 of $271,166,000, to remain available until expended, to
11 complete the acquisition and deployment of the Advanced
12 Weather Interactive Processing System and NOAA Port
13 and to cover all associated activities, including program
14 management and operations and maintenance through
15 September 30, 1999.
16 (2) No funds are authorized to be appropriated for
17 any fiscal year under paragraph (1) unless, within 60 days
18 after the submission of the President's budget request for
19 such fiscal year, the Secretary—
20 (A) certifies to the Congress that—
21 (i) the systems meet the technical perform-
22 ance specifications included in the system con-
23 tract as in effect on August 11, 1995;
24 (ii) the systems can be fully deployed,
25 sited, and operational without requiring further

1 appropriations beyond amounts authorized
2 under paragraph (1); and
3 (iii) the Secretary does not foresee any
4 delays in the systems deployment and oper-
5 ations schedule; or
6 (B) submits to the Congress a report which de-
7 scribes—
8 (i) the circumstances which prevent a cer-
9 tification under subparagraph (A);
10 (ii) remedial actions undertaken or to be
11 undertaken with respect to such circumstances;
12 (iii) the effects of such circumstances on
13 the systems deployment and operations schedule
14 and systems coverage; and
15 (iv) a justification for proceeding with the
16 program, if appropriate.
17 (f) CONSTRUCTION OF WEATHER FORECAST OF-
18 FICES.—There are authorized to be appropriated to the
19 Secretary to enable the National Oceanic and Atmospheric
20 Administration to carry out construction, repair, and
21 modification activities relating to new and existing weath-
22 er forecast offices, $11,000,000 for fiscal year 1997. Such
23 activities include planning, design, and land acquisition re-
24 lated to such offices.

1 (g) STREAMLINING WEATHER SERVICE MODERNIZA-
2 TION.—
3 (1) REPEALS.—Sections 706 and 707 of the
4 Weather Service Modernization Act (15 U.S.C. 313
5 note) are repealed.
6 (2) CONFORMING AMENDMENTS.—The Weather
7 Service Modernization Act (15 U.S.C. 313 note) is
8 amended—
9 (A) in section 702, by striking paragraph
10 (3) and redesignating paragraphs (4) through
11 (10) as paragraphs (3) through (9), respec-
12 tively; and
13 (B) in section 703—
14 (i) by striking "(a) NATIONAL IMPLE-
15 MENTATION PLAN.—";
16 (ii) by striking paragraph (3) and re-
17 designating paragraphs (4), (5), and (6) as
18 paragraphs (3), (4), and (5), respectively;
19 and
20 (iii) by striking subsections (b) and
21 (c).
22 **SEC. 412. ATMOSPHERIC RESEARCH.**
23 (a) CLIMATE AND AIR QUALITY RESEARCH.—There
24 are authorized to be appropriated to the Secretary to en-
25 able the National Oceanic and Atmospheric Administra-

1 tion to carry out its climate and air quality research du-
2 ties, $99,272,000 for fiscal year 1997. Such duties include
3 internannual and seasonal climate research and long-term
4 climate and air quality research.

5 (b) ATMOSPHERIC PROGRAMS.—There are author-
6 ized to be appropriated to the Secretary to enable the Na-
7 tional Oceanic and Atmospheric Administration to carry
8 out its atmospheric research duties, $43,182,000 for fiscal
9 year 1997. Such duties include research for developing im-
10 proved prediction capabilities for atmospheric processes,
11 as well as solar-terrestrial research and services.

12 **SEC. 413. NATIONAL ENVIRONMENTAL SATELLITE, DATA,**
13 **AND INFORMATION SERVICE.**

14 (a) SATELLITE OBSERVING SYSTEMS.—There are
15 authorized to be appropriated to the Secretary to enable
16 the National Oceanic and Atmospheric Administration to
17 carry out its satellite observing systems duties,
18 $308,473,000 for fiscal year 1997, to remain available
19 until expended. Such duties include spacecraft procure-
20 ment, launch, and associated ground station systems in-
21 volving polar orbiting and geostationary environmental
22 satellites, as well as the operation of such satellites. None
23 of the funds authorized under this subsection shall be used
24 for the purposes for which funds are authorized under sec-
25 tion 105(d) of the National Oceanic and Atmospheric Ad-

1 ministration Authorization Act of 1992 (Public Law 102–
2 567).

3 (b) POES PROGRAM AUTHORIZATION.—Of the sums
4 authorized in subsection (a), there are authorized to be
5 appropriated to the Secretary $147,664,000 for fiscal year
6 1997, to remain available until expended, for the procure-
7 ment and launch of, and supporting ground systems for,
8 Polar Orbiting Environmental Satellites, K, L, M, N, and
9 N[1].

10 (c) GEOSTATIONARY OPERATIONAL ENVIRONMENTAL
11 SATELLITES.—Of the sums authorized in subsection (a),
12 there are authorized to be appropriated to the Adminis-
13 trator $70,757,000 for fiscal year 1997, to remain avail-
14 able until expended to procure up to three additional Geo-
15 stationary Operational Environmental NEXT Satellites
16 (GOES I–M clones), instruments, and supporting ground
17 systems.

18 (d) NATIONAL POLAR-ORBITING OPERATIONAL EN-
19 VIRONMENTAL SATELLITE SYSTEM PROGRAM AUTHOR-
20 IZATION.—Of the sums authorized in subsection (a), there
21 are authorized to be appropriated to the Secretary, for fis-
22 cal year 1997, $39,500,000, to remain available until ex-
23 pended, for the procurement of the National Polar-Orbit-
24 ing Operational Environmental Satellite System, and the

1 procurement of the launching and supporting ground sys-
2 tems of such satellites.

3 (e) ENVIRONMENTAL DATA AND INFORMATION
4 SERVICES.—There are authorized to be appropriated to
5 the Secretary to enable the National Oceanic and Atmos-
6 pheric Administration to carry out its environmental data
7 and information services duties, $44,898,000 for fiscal
8 year 1997. Such duties include climate data services, geo-
9 physical data services, and environmental assessment and
10 information services.

11 Subtitle B—Marine Research

12 **SEC. 421. NATIONAL OCEAN SERVICE.**

13 (a) MAPPING AND CHARTING.—There are authorized
14 to be appropriated to the Secretary, to enable the National
15 Oceanic and Atmospheric Administration to carry out
16 mapping and charting activities under the Act of 1947 and
17 any other law involving those activities, $36,500,000 for
18 fiscal year 1997.

19 (b) GEODESY.—There are authorized to be appro-
20 priated to the Secretary, to enable the National Oceanic
21 and Atmospheric Administration to carry out geodesy ac-
22 tivities under the Act of 1947 and any other law involving
23 those activities, $20,163,000 for fiscal year 1997.

24 (c) OBSERVATION AND PREDICTION.—

1 (1) IN GENERAL.—There are authorized to be
2 appropriated to the Secretary, to enable the Na-
3 tional Oceanic and Atmospheric Administration to
4 carry out observation and prediction activities under
5 the Act of 1947 and any other law involving those
6 activities, $11,000,000 for fiscal year 1997.
7 (2) OCEAN AND EARTH SCIENCES.—In addition
8 to amounts authorized under paragraph (1), there
9 are authorized to be appropriated to the Secretary,
10 to enable the National Oceanic and Atmospheric Ad-
11 ministration to carry out ocean and earth science ac-
12 tivities, $3,000,000 for fiscal year 1997.
13 (d) ESTUARINE AND COASTAL ASSESSMENT.—
14 (1) IN GENERAL.—There are authorized to be
15 appropriated to the Secretary, to enable the Na-
16 tional Oceanic and Atmospheric Administration to
17 support estuarine and coastal assessment activities
18 under the Act of 1947 and any other law involving
19 those activities, $2,674,000 for fiscal year 1997.
20 (2) OCEAN ASSESSMENT.—In addition to
21 amounts authorized under paragraph (1), there are
22 authorized to be appropriated to the Secretary, to
23 enable the National Oceanic and Atmospheric Ad-
24 ministration to carry out the National Status and
25 Trends Program, the Strategic Environmental As-

1 sessment Program, and the Hazardous Materials
2 Response Program, $21,925,000 for fiscal year
3 1997.
4 (3) DAMAGE ASSESSMENT PROGRAM.—In addi-
5 tion to amounts authorized under paragraph (1),
6 there are authorized to be appropriated to the Sec-
7 retary, to enable the National Oceanic and Atmos-
8 pheric Administration to carry out the Damage As-
9 sessment Program, $1,200,000 for fiscal year 1997.
10 **SEC. 422. OCEAN AND GREAT LAKES RESEARCH.**
11 (a) MARINE PREDICTION RESEARCH.—There are au-
12 thorized to be appropriated to the Secretary, to enable the
13 National Oceanic and Atmospheric Administration to
14 carry out marine prediction research activities under the
15 Act of 1947, the Act of 1890, and any other law involving
16 those activities, $14,808,000 for fiscal year 1997.
17 (b) NATIONAL SEA GRANT COLLEGE PROGRAM.—(1)
18 Section 212(a) of the National Sea Grant College Pro-
19 gram Act (33 U.S.C. 1131(a)) is amended to read as fol-
20 lows:
21 "(a) GRANTS AND CONTRACTS; FELLOWSHIPS.—
22 There are authorized to be appropriated to carry out sec-
23 tions 205 and 208, $34,500,000 for fiscal year 1997.".
24 (2) Section 212(b)(1) of the National Sea Grant Col-
25 lege Program Act (33 U.S.C. 1131(b)(1)) is amended by

1 striking "an amount" and all that follows through "not
2 to exceed $2,900,000" and inserting in lieu thereof
3 "$1,500,000 for fiscal year 1997".

4 (3) Section 203(4) of the National Sea Grant College
5 Program Act (33 U.S.C. 1122(4)) is amended by striking
6 "discipline or field" and all that follows through "public
7 administration)" and inserting in lieu thereof "field or dis-
8 cipline involving scientific research".

9 (c) COASTAL OCEAN PROGRAM.—There are author-
10 ized to be appropriated to the Secretary, to enable the Na-
11 tional Oceanic and Atmospheric Administration to carry
12 out the Coastal Ocean Program, $17,300,000 for fiscal
13 year 1997.

14 Subtitle C—Program Support

15 **SEC. 431. PROGRAM SUPPORT.**

16 (a) EXECUTIVE DIRECTION AND ADMINISTRATIVE
17 ACTIVITIES.—There are authorized to be appropriated to
18 the Secretary, to enable the National Oceanic and Atmos-
19 pheric Administration to carry out executive direction and
20 administrative activities under the Act of 1970 and any
21 other law involving those activities, $20,000,000 for fiscal
22 year 1997.

23 (b) CENTRAL ADMINISTRATIVE SUPPORT.—There
24 are authorized to be appropriated to the Secretary, to en-
25 able the National Oceanic and Atmospheric Administra-

1 tion to carry out central administrative support activities
2 under the Act of 1970 and any other law involving those
3 activities, $33,000,000 for fiscal year 1997.
4 (c) RETIRED PAY.—There are authorized to be ap-
5 propriated to the Secretary, for retired pay for retired
6 commissioned officers of the National Oceanic and Atmos-
7 pheric Administration under the Act of 1970, $7,706,000
8 for fiscal year 1997.
9 (d) MARINE SERVICES.—
10 (1) SERVICE CONTRACTS.—Notwithstanding
11 any other provision of law and subject to the avail-
12 ability of appropriations, the Secretary shall enter
13 into contracts, including multiyear contracts, subject
14 to paragraph (3), for the use of vessels to conduct
15 oceanographic research and fisheries research, mon-
16 itoring, enforcement, and management, and to ac-
17 quire other data necessary to carry out the missions
18 of the National Oceanic and Atmospheric Adminis-
19 tration. The Secretary shall enter into these con-
20 tracts unless—
21 (A) the cost of the contract is more than
22 the cost (including the cost of vessel operation,
23 maintenance, and all personnel) to the National
24 Oceanic and Atmospheric Administration of ob-

1 taining those services on vessels of the National
2 Oceanic and Atmospheric Administration;
3 (B) the contract is for more than 7 years;
4 or
5 (C) the data is acquired through a vessel
6 agreement pursuant to paragraph (4).
7 (2) VESSELS.—The Secretary may not enter
8 into any contract for the construction, lease-pur-
9 chase, upgrade, or service life extension of any ves-
10 sel.
11 (3) MULTIYEAR CONTRACTS.—
12 (A) IN GENERAL.—Subject to subpara-
13 graphs (B) and (C), and notwithstanding sec-
14 tion 1341 of title 31, United States Code, and
15 section 11 of title 41, United States Code, the
16 Secretary may acquire data under multiyear
17 contracts.
18 (B) REQUIRED FINDINGS.—The Secretary
19 may not enter into a contract pursuant to this
20 paragraph unless the Secretary finds with re-
21 spect to that contract that there is a reasonable
22 expectation that throughout the contemplated
23 contract period the Secretary will request from
24 Congress funding for the contract at the level
25 required to avoid contract termination.

1 (C) REQUIRED PROVISIONS.—The Sec-
2 retary may not enter into a contract pursuant
3 to this paragraph unless the contract includes—
4 (i) a provision under which the obliga-
5 tion of the United States to make pay-
6 ments under the contract for any fiscal
7 year is subject to the availability of appro-
8 priations provided in advance for those
9 payments;
10 (ii) a provision that specifies the term
11 of effectiveness of the contract; and
12 (iii) appropriate provisions under
13 which, in case of any termination of the
14 contract before the end of the term speci-
15 fied pursuant to clause (ii), the United
16 States shall only be liable for the lesser
17 of—
18 (I) an amount specified in the
19 contract for such a termination; or
20 (II) amounts that were appro-
21 priated before the date of the termi-
22 nation for the performance of the con-
23 tract or for procurement of the type
24 of acquisition covered by the contract

1 and are unobligated on the date of the
2 termination.
3 (4) VESSEL AGREEMENTS.—The Secretary shall
4 use excess capacity of University National Oceano-
5 graphic Laboratory System vessels where appro-
6 priate and may enter into memoranda of agreement
7 with the operators of these vessels to carry out this
8 requirement.
9 (5) AUTHORIZATION OF APPROPRIATIONS.—
10 There are authorized to be appropriated to the Sec-
11 retary, to enable the National Oceanic and Atmos-
12 pheric Administration to carry out marine services
13 activities, $56,292,000 for fiscal year 1997.
14 (e) AIRCRAFT SERVICES.—There are authorized to be
15 appropriated to the Secretary, to enable the National Oce-
16 anic and Atmospheric Administration to carry out aircraft
17 services activities (including aircraft operations, mainte-
18 nance, and support) under the Act of 1970 and any other
19 law involving those activities, $9,153,000 for fiscal year
20 1997.
21 (f) FACILITIES REPAIRS AND RENOVATIONS.—There
22 are authorized to be appropriated to the Secretary, to en-
23 able the National Oceanic and Atmospheric Administra-
24 tion to carry out facilities repairs and renovations,
25 $7,546,000 for fiscal year 1997.

1 **Subtitle D—Streamlining of**
2 **Operations**

3 **SEC. 441. PROGRAMS.**

4 (a) PROGRAMS.—No funds are authorized to be ap-
5 propriated for the following programs and accounts:

6 (1) The National Undersea Research Program.

7 (2) The Fleet Modernization, Shipbuilding, and
8 Construction Account.

9 (3) The Charleston, South Carolina, Special
10 Management Plan.

11 (4) Chesapeake Bay Observation Buoys.

12 (5) Federal/State Weather Modification Grants.

13 (6) The Southeast Storm Research Account.

14 (7) National Institute for Environmental Re-
15 newal.

16 (8) The Lake Champlain Study.

17 (9) The Maine Marine Research Center.

18 (10) The South Carolina Cooperative Geodetic
19 Survey Account.

20 (11) Pacific Island Technical Assistance.

21 (12) VENTS program.

22 (13) National Weather Service non-Federal,
23 non-wildfire Fire Weather Service.

24 (14) National Weather Service Regional Cli-
25 mate Centers.

1 (15) National Weather Service Samoa Weather
2 Forecast Office Repair and Upgrade Account.
3 (16) Dissemination of Weather Charts (Marine
4 Facsimile Service).
5 (17) The Southeast United States Caribbean
6 Fisheries Oceanographic Coordinated Investigations
7 Program.
8 (18) National Coastal Research and Develop-
9 ment Institute Account.
10 (19) Global Learning and Observations to Ben-
11 efit the Environment program.
12 (b) REPORT.—Not later than 60 days after the date
13 of the enactment of this Act, the Secretary shall submit
14 to the Committee on Science of the House of Representa-
15 tives and the Committee on Commerce, Science, and
16 Transportation of the Senate a report certifying that all
17 the programs listed in subsection (a) will be terminated
18 no later than September 30, 1996.
19 (c) REPEAL OF SEA GRANT PROGRAMS.—
20 (1) REPEALS.—(A) Section 208(b) of the Na-
21 tional Sea Grant College Program Act (33 U.S.C.
22 1127(b)) is repealed.
23 (B) Section 3 of the Sea Grant Program Im-
24 provement Act of 1976 (33 U.S.C. 1124a) is re-
25 pealed.

1 (2) CONFORMING AMENDMENT.—Section 209
2 of the National Sea Grant College Program Act (33
3 U.S.C. 1128(b)(1)) is amended by striking "and sec-
4 tion 3 of the Sea Grant Program Improvement Act
5 of 1976".
6 (d) ADDITIONAL REPEAL.—The NOAA Fleet Mod-
7 ernization Act (33 U.S.C. 851 note) is repealed.

8 **SEC. 442. LIMITATIONS ON APPROPRIATIONS.**

9 (a) MAXIMUM AMOUNT.—No more than
10 $1,765,359,000 are authorized to be appropriated to the
11 Secretary for fiscal year 1997, by this Act and any other
12 Act, to enable the National Oceanic and Atmospheric Ad-
13 ministration to carry out all activities associated with Op-
14 erations, Research, and Facilities.
15 (b) REDUCTION IN TRAVEL BUDGET.—Of the sums
16 appropriated under this Act for Operations, Research, and
17 Facilities, no more than $20,000,000 may be used for re-
18 imbursement of travel and related expenses for National
19 Oceanic and Atmospheric Administration personnel.

20 **SEC. 443. TERMINATION OF THE CORPS OF COMMISSIONED**
21 **OFFICERS.**

22 (a) NUMBER OF OFFICERS.—Notwithstanding sec-
23 tion 8 of the Act of June 3, 1948 (33 U.S.C. 853g), no
24 commissioned officers are authorized for any fiscal year
25 after fiscal year 1996.

1 (b) SEVERANCE PAY.—Commissioned officers may be
2 separated from the active list of the National Oceanic and
3 Atmospheric Administration. In lieu of separation pay, of-
4 ficers so separated shall be eligible only for severance pay
5 in accordance with the terms and conditions of section
6 5595 of title 5, United States Code, and only to the extent
7 provided in advance in appropriations Acts.

8 (c) TRANSFER.—(1) Subject to the approval of the
9 Secretary of Defense and under terms and conditions
10 specified by the Secretary, commissioned officers subject
11 to subsection (a) may transfer to the armed services under
12 section 716 of title 10, United States Code.

13 (2) Subject to the approval of the Secretary of Trans-
14 portation and under terms and conditions specified by the
15 Secretary, commissioned officers subject to subsection (a)
16 may transfer to the United States Coast Guard under sec-
17 tion 716 of title 10, United States Code.

18 (3) Subject to the approval of the Administrator of
19 the National Oceanic and Atmospheric Administration
20 and under terms and conditions specified by that Adminis-
21 trator, a commissioned officer subject to subsection (a)
22 may be employed by the National Oceanic and Atmos-
23 pheric Administration as a member of the civil service, if
24 the Administrator considers that individual to be the best

1 available candidate for the position. No new civil service
2 position may be created pursuant to this paragraph.
3 (4) The Administrator shall, before December 1.
4 1996, transmit to the Committee on Science of the House
5 of Representatives and the Committee on Commerce,
6 Science, and Transportation of the Senate a report listing
7 all officers employed by the National Oceanic and Atmos-
8 pheric Administration under paragraph (3), a description
9 of their responsibilities as members of the NOAA Corps,
10 and a description of their responsibilities as civil service
11 employees of the National Oceanic and Atmospheric Ad-
12 ministration.
13 (d) REPEALS.—(1) The following provisions of law
14 are repealed:
15 (A) The Coast and Geodetic Survey Commis-
16 sioned Officers' Act of 1948 (33 U.S.C. 853a–853o,
17 853p–853u).
18 (B) The Act of February 16, 1929 (Chapter
19 221, section 5; 45 Stat. 1187; 33 U.S.C. 852a).
20 (C) The Act of January 19, 1942 (Chapter 6;
21 56 Stat. 6).
22 (D) Section 9 of Public Law 87–649 (76 Stat.
23 495).
24 (E) The Act of May 22, 1917 (Chapter 20, sec-
25 tion 16; 40 Stat. 87; 33 U.S.C. 854 et seq.).

1 (F) The Act of December 3, 1942 (Chapter
2 670; 56 Stat. 1038.
3 (G) Sections 1 through 5 of Public Law 91–621
4 (84 Stat. 1863; 33 U.S.C. 857–1 et seq.).
5 (H) The Act of August 10, 1956 (Chapter
6 1041, section 3; 70A Stat. 619; 33 U.S.C. 857a).
7 (I) The Act of May 18, 1920 (Chapter 190,
8 section 11; 41 Stat. 603; 33 U.S.C. 864).
9 (J) The Act of July 22, 1947 (Chapter 286; 61
10 Stat. 400; 33 U.S.C. 873, 874).
11 (K) The Act of August 3, 1956 (Chapter 932;
12 70 Stat. 988; 33 U.S.C. 875, 876).
13 (L) All other Acts inconsistent with this sub-
14 section.
15 Following the repeal of provisions under this paragraph,
16 all retirement benefits for the NOAA Corps which are in
17 existence on September 30, 1996, shall continue to apply
18 to eligible NOAA Corps officers and retirees.
19 (2) The effective date of the repeals under paragraph
20 (1) shall be October 1, 1996.
21 (e) ABOLITION.—The Office of the National Oceanic
22 and Atmospheric Administration Corps of Operations and
23 the Commissioned Personnel Center are abolished effective
24 September 30, 1996.

1 **Subtitle E—Miscellaneous**

2 **SEC. 451. WEATHER DATA BUOYS.**

3 (a) PROHIBITION.—It shall be unlawful for any unau-
4 thorized person to remove, change the location of, ob-
5 struct, willfully damage, make fast to, or interfere with
6 any weather data buoy established, installed, operated, or
7 maintained by the National Data Buoy Center.

8 (b) CIVIL PENALTIES.—The Administrator is author-
9 ized to assess a civil penalty against any person who vio-
10 lates any provision of this section in an amount of not
11 more than $10,000 for each violation. Each day during
12 which such violation continues shall be considered a new
13 offense. Such penalties shall be assessed after notice and
14 opportunity for a hearing.

15 (c) REWARDS.—The Administrator may offer and
16 pay rewards for the apprehension and conviction, or for
17 information helpful therein, of persons found interfering,
18 in violation of law, with data buoys maintained by the Na-
19 tional Data Buoy Center; or for information leading to
20 the discovery of missing National Weather Service prop-
21 erty or the recovery thereof.

22 **SEC. 452. DUTIES OF THE NATIONAL WEATHER SERVICE.**

23 (a) IN GENERAL.—To protect life and property and
24 enhance the national economy, the Secretary, through the

1 National Weather Service, except as outlined in subsection
2 (b), shall be responsible for—
3 (1) forecasts and shall serve as the sole official
4 source of weather warnings;
5 (2) the issue of storm warnings;
6 (3) the collection, exchange, and distribution of
7 meteorological, hydrological, climatic, and oceano-
8 graphic data and information; and
9 (4) the preparation of hydrometeorological guid-
10 ance and core forecast information.
11 (b) COMPETITION WITH PRIVATE SECTOR.—The
12 National Weather Service shall not compete, or assist
13 other entities to compete, with the private sector when a
14 service is currently provided or can be provided by com-
15 mercial enterprise, unless—
16 (1) the Secretary finds that the private sector
17 is unwilling or unable to provide the services; and
18 (2) the service provides vital weather warnings
19 and forecasts for the protection of lives and property
20 of the general public.
21 (c) AMENDMENTS.—The Act of 1890 is amended—
22 (1) by striking section 3 (15 U.S.C. 313); and
23 (2) in section 9 (15 U.S.C. 317), by striking all
24 after "Department of Agriculture" and inserting in
25 lieu thereof a period.

1 (d) REPORT.—Not later than 60 days after the date
2 of the enactment of this Act, the Secretary shall submit
3 to the Committee on Science of the House of Representa-
4 tives and the Committee on Commerce, Science, and
5 Transportation of the Senate a report detailing all Na-
6 tional Weather Service activities which do not conform to
7 the requirements of this section and outlining a timetable
8 for their termination.

9 **SEC. 453. NATIONAL OCEANOGRAPHIC PARTNERSHIP PRO-**
10 **GRAM.**

11 (a) PROGRAM REQUIRED.—(1) Subtitle C of title 10,
12 United States Code, is amended by adding after chapter
13 663 the following new chapter:

14 **"CHAPTER 665—NATIONAL OCEANO-**
15 **GRAPHIC PARTNERSHIP PROGRAM**

"Sec.
"7901. National Oceanographic Partnership Program.
"7902. National Ocean Research Leadership Council.
"7903. Ocean Research Partnership Coordinating Group.
"7904. Ocean Research Advisory Panel.

16 **"§ 7901. National Oceanographic Partnership Pro-**
17 **gram**

18 "(a) ESTABLISHMENT.—The Secretary of the Navy
19 shall establish a program to be known as the 'National
20 Oceanographic Partnership Program'.

21 "(b) PURPOSES.—The purposes of the program are
22 as follows:

1 "(1) To promote the national goals of assuring
2 national security, protecting quality of life, and
3 strengthening science and education through im-
4 proved knowledge of the ocean.
5 "(2) To coordinate and strengthen oceano-
6 graphic efforts in support of those goals by—
7 "(A) identifying and carrying out partner-
8 ships among Federal agencies, academia, indus-
9 try, and other members of the oceanographic
10 scientific community in the areas of data, re-
11 sources, and education; and
12 "(B) reporting annually to Congress on the
13 program.
14 **"§ 7902. National Ocean Research Leadership Council**
15 "(a) COUNCIL.—There is established a National
16 Ocean Research Leadership Council (hereinafter in this
17 chapter referred to as the "Council").
18 "(b) MEMBERSHIP.—The Council is composed of the
19 following members:
20 "(1) The Secretary of the Navy, who shall be
21 the chairman of the Council.
22 "(2) The Administrator of the National Oceanic
23 and Atmospheric Administration, who shall be the
24 vice chairman of the Council.

1 "(3) The Director of the National Science
2 Foundation.
3 "(4) The Administrator of the National Aero-
4 nautics and Space Administration.
5 "(5) The Deputy Secretary of Energy.
6 "(6) The Administrator of the Environmental
7 Protection Agency.
8 "(7) The Commandant of the Coast Guard.
9 "(8) The Director of the Geological Survey of
10 the Department of the Interior.
11 "(9) The Director of the Defense Advanced Re-
12 search Projects Agency.
13 "(10) The Director of the Minerals Manage-
14 ment Service of the Department of the Interior.
15 "(11) The President of the National Academy
16 of Sciences, the President of the National Academy
17 of Engineering, and the President of the Institute of
18 Medicine.
19 "(12) The Director of the Office of Science and
20 Technology.
21 "(13) The Director of the Office of Manage-
22 ment and Budget.
23 "(14) One member appointed by the Chairman
24 from among individuals who will represent the views
25 of ocean industries.

1 "(15) One member appointed by the Chairman
2 from among individuals who will represent the views
3 of State governments.
4 "(16) One member appointed by the Chairman
5 from among individuals who will represent the views
6 of academia.
7 "(17) One member appointed by the Chairman
8 from among individuals who will represent such
9 other views as the Chairman considers appropriate.
10 "(c) TERM OF OFFICE.—The term of office of a
11 member of the Council appointed under paragraph (14),
12 (15), (16), or (17) of subsection (b) shall be two years,
13 except that any person appointed to fill a vacancy occur-
14 ring before the expiration of the term for which his prede-
15 cessor was appointed shall be appointed for the remainder
16 of such term.
17 "(d) RESPONSIBILITIES.—The Council shall have the
18 following responsibilities:
19 "(1) To establish the Ocean Research Partner-
20 ship Coordinating Group as provided in section
21 7903.
22 "(2) To establish the Ocean Research Advisory
23 Panel as provided in section 7904.
24 "(3) To submit to Congress an annual report
25 pursuant to subsection (e).

1 "(e) ANNUAL REPORT.—Not later than March 1 of
2 each year, the Council shall submit to Congress a report
3 on the National Oceanographic Partnership Program. The
4 report shall contain the following:
5 "(1) A description of activities of the program
6 carried out during the fiscal year before the fiscal
7 year in which the report is prepared. The description
8 also shall include a list of the members of the Ocean
9 Research Partnership Coordinating Group, the
10 Ocean Research Advisory Panel, and any working
11 groups in existence during the fiscal year covered.
12 "(2) A general outline of the activities planned
13 for the program during the fiscal year in which the
14 report is prepared.
15 "(3) A summary of projects continued from the
16 fiscal year before the fiscal year in which the report
17 is prepared and projects expected to be started dur-
18 ing the fiscal year in which the report is prepared
19 and during the following fiscal year.
20 "(4) A description of the involvement of the
21 program with Federal interagency coordinating enti-
22 ties.
23 "(5) The amounts requested, in the budget sub-
24 mitted to Congress pursuant to section 1105(a) of
25 title 31 for the fiscal year following the fiscal year

1 in which the report is prepared, for the programs,
2 projects, and activities of the program and the esti-
3 mated expenditures under such programs, projects,
4 and activities during such following fiscal year.

5 **"§ 7903. Ocean Research Partnership Coordinating**
6 **Group**

7 "(a) ESTABLISHMENT.—The Council shall establish
8 an entity to be known as the 'Ocean Research Partnership
9 Coordinating Group' (hereinafter in this chapter referred
10 to as the 'Coordinating Group').

11 "(b) MEMBERSHIP.—The Coordinating Group shall
12 consist of members appointed by the Council, with one
13 member appointed from each Federal department or agen-
14 cy having an oceanographic research or development pro-
15 gram.

16 "(c) CHAIRMAN.—The Council shall appoint the
17 Chairman of the Coordinating Group.

18 "(d) RESPONSIBILITIES.—Subject to the authority,
19 direction, and control of the Council, the Coordinating
20 Group shall have the following responsibilities:

21 "(1) To prescribe policies and procedures to im-
22 plement the National Oceanographic Partnership
23 Program.

1 "(2) To review, select, and identify and allocate
2 funds for partnership projects for implementation
3 under the program, based on the following criteria:
4 "(A) Whether the project addresses critical
5 research objectives or operational goals, such as
6 data accessibility and quality assurance, sharing
7 of resources, or education.
8 "(B) Whether the project has broad par-
9 ticipation within the oceanographic community.
10 "(C) Whether the partners have a long-
11 term commitment to the objectives of the
12 project.
13 "(D) Whether the resources supporting the
14 project are shared among the partners.
15 "(E) Whether the project has been sub-
16 jected to adequate peer review.
17 "(3) To promote participation in partnership
18 projects by each Federal department and agency in-
19 volved with oceanographic research and by prescrib-
20 ing guidelines for participation in the program.
21 "(4) To submit to the Council an annual report
22 pursuant to subsection (i).
23 "(e) PARTNERSHIP PROGRAM OFFICE.—The Coordi-
24 nating Group shall establish, using competitive proce-
25 dures, and oversee a partnership program office to carry

1 out such duties as the Chairman of the Coordinating
2 Group considers appropriate to implement the National
3 Oceanographic Partnership Program, including the follow-
4 ing:

5 "(1) To establish and oversee working groups
6 to propose partnership projects to the Coordinating
7 Group and advise the Group on such projects.

8 "(2) To manage peer review of partnership
9 projects proposed to the Coordinating Group and
10 competitions for projects selected by the Group.

11 "(3) To submit to the Coordinating Group an
12 annual report on the status of all partnership
13 projects and activities of the office.

14 "(f) CONTRACT AND GRANT AUTHORITY.—The Co-
15 ordinating Group may authorize one or more of the de-
16 partments or agencies represented in the Group to enter
17 into contracts and make grants, using funds appropriated
18 pursuant to an authorization for the National Oceano-
19 graphic Partnership Program, for the purpose of imple-
20 menting the program and carrying out the Coordinating
21 Group's responsibilities.

22 "(g) FORMS OF PARTNERSHIP PROJECTS.—Partner-
23 ship projects selected by the Coordinating Group may be
24 in any form that the Coordinating Group considers appro-
25 priate, including memoranda of understanding, coopera-

1 tive research and development agreements, and similar in-
2 struments.
3 "(h) ANNUAL REPORT.—Not later than February 1
4 of each year, the Coordinating Group shall submit to the
5 Council a report on the National Oceanographic Partner-
6 ship Program. The report shall contain, at a minimum,
7 copies of any recommendations or reports to the Coordi-
8 nating Group by the Ocean Research Advisory Panel.
9 **"§ 7904. Ocean Research Advisory Panel**
10 "(a) ESTABLISHMENT.—The Council shall appoint
11 an Ocean Research Advisory Panel (hereinafter in this
12 chapter referred to as the 'Advisory Panel') consisting of
13 not less than 10 and not more than 18 members.
14 "(b) MEMBERSHIP.—Members of the Advisory Panel
15 shall be appointed from among persons who are eminent
16 in the field of marine science, or related fields, and who
17 are representative, at a minimum, of the interests of gov-
18 ernment, academia, and industry.
19 "(c) RESPONSIBILITIES.—(1) The Coordinating
20 Group shall refer to the Advisory Panel, and the Advisory
21 Panel shall review, each proposed partnership project esti-
22 mated to cost more than $500,000. The Advisory Panel
23 shall make any recommendations to the Coordinating
24 Group that the Advisory Panel considers appropriate re-
25 garding such projects.

1 "(2) The Advisory Panel shall make any rec-
2 ommendations to the Coordinating Group regarding activi-
3 ties that should be addressed by the National Oceano-
4 graphic Partnership Program that the Advisory Panel
5 considers appropriate.".

6 (2) The table of chapters at the beginning of subtitle
7 C of title 10, United States Code, and at the beginning
8 of part IV of such subtitle, are each amended by inserting
9 after the item relating to chapter 663 the following:

"665. National Oceanographic Partnership Program ..... 7901".

10 (b) INITIAL APPOINTMENTS OF COUNCIL MEM-
11 BERS.—The Secretary of the Navy shall make the ap-
12 pointments required by section 7902(b) of title 10, United
13 States Code, as added by subsection (a)(1), not later than
14 December 1, 1996.

15 (c) INITIAL APPOINTMENTS OF ADVISORY PANEL
16 MEMBERS.—The National Ocean Research Leadership
17 Council established by section 7902 of title 10, United
18 States Code, as added by subsection (a)(1), shall make
19 the appointments required by section 7904 of such title
20 not later than January 1, 1997.

21 (d) FIRST ANNUAL REPORT OF NATIONAL OCEAN
22 RESEARCH LEADERSHIP COUNCIL.—The first annual re-
23 port required by section 7902(e) of title 10, United States
24 Code, as added by subsection (a)(1), shall be submitted

1 to Congress not later than March 1, 1997. The first report
2 shall include, in addition to the information required by
3 such section, information about the terms of office, proce-
4 dures, and responsibilities of the Ocean Research Advisory
5 Panel established by the Council.

6 (e) AUTHORIZATION OF APPROPRIATIONS.—No
7 funds are authorized to be appropriated by this Act for
8 the National Oceanographic Partnership Program for fis-
9 cal year 1997.

10 TITLE V—ENVIRONMENTAL 11 PROTECTION AGENCY

12 **SEC. 501. SHORT TITLE.**

13 This title may be cited as the "Environmental Re-
14 search, Development, and Demonstration Authorization
15 Act of 1996".

16 **SEC. 502. DEFINITIONS.**

17 For the purposes of this title, the term—

18 (1) "Administrator" means the Administrator
19 of the Environmental Protection Agency;

20 (2) "Agency" means the Environmental Protec-
21 tion Agency; and

22 (3) "Assistant Administrator" means the As-
23 sistant Administrator for Research and Development
24 of the Agency.

1 SEC. 503. AUTHORIZATION OF APPROPRIATIONS.

2 (a) IN GENERAL.—There are authorized to be appro-
3 priated to the Administrator $487,126,600 for fiscal year
4 1997 for Science and Technology activities, including pro-
5 gram management and support, in the areas specified in
6 subsection (b).

7 (b) SPECIFIC PROGRAMS AND ACTIVITIES.—Of the
8 amount authorized in subsection (a), there are authorized
9 to be appropriated the following:

10 (1) For air related research, $74,119,900.

11 (2) For global change research, $1,400,000.

12 (3) For water quality related research,
13 $26,294,000.

14 (4) For drinking water related research,
15 $26,593,700.

16 (5) For toxic substances related research,
17 $12,341,500.

18 (6) For lab and field expenses, $73,031,600.

19 (7) For headquarters expenses of the Office of
20 Research and Development, $9,254,800.

21 (8) For multimedia related research expenses,
22 $174,060,100, of which $5,000,000 shall be for
23 graduate student fellowships.

24 (9) For program management expenses,
25 $6,399,000.

1 (10) For pesticide related research,
2 $20,632,000.
3 (11) For research related to hazardous waste,
4 $12,000,000.
5 (12) For environmental research laboratories,
6 $51,000,000.
7 (c) ADDITIONAL AUTHORIZATIONS.—There are au-
8 thorized to be appropriated to the Administrator for fiscal
9 year 1997—
10 (1) for oil pollution related research,
11 $2,076,900; and
12 (2) for research related to leaking underground
13 storage tanks, $769,000.
14 (d) LIMITATIONS.—No funds are authorized to be ap-
15 propriated by this title for—
16 (1) the Environmental Technology Initiative;
17 (2) the Climate Change Action Plan;
18 (3) Indoor Air Research;
19 (4) North Dakota Center for Air Toxic Metals
20 Research;
21 (5) drinking water research conducted by the
22 American Water Works Association Research Foun-
23 dation, other than amounts awarded through a com-
24 petitive process;

1 (6) the Water Environmental Research Founda-
2 tion;
3 (7) the EPSCoR program;
4 (8) the National Urban Air Toxics Research
5 Center;
6 (9) the Gulf Coast Hazardous Substances Re-
7 search Center;
8 (10) urban waste management research at the
9 University of New Orleans, other than amounts
10 awarded through a competitive process;
11 (11) the Resources and Agricultural Policy Sys-
12 tems Program at Iowa State University; or
13 (12) the Oil Spill Remediation Research Center.
14 **SEC. 504. SCIENTIFIC RESEARCH REVIEW.**
15 (a) IN GENERAL.—The Administrator shall assign to
16 the Assistant Administrator the duties of—
17 (1) developing a strategic plan for scientific and
18 technical research activities throughout the Agency;
19 (2) integrating that strategic plan into ongoing
20 Agency planning activities; and
21 (3) reviewing all Agency research to ensure the
22 research—
23 (A) is of high quality; and
24 (B) does not duplicate any other research
25 being conducted by the Agency.

1 (b) REPORT.—The Assistant Administrator shall
2 transmit annually to the Administrator and to the Com-
3 mittee on Science of the House of Representatives and the
4 Committee on Environment and Public Works of the Sen-
5 ate a report detailing—
6 (1) all Agency research the Assistant Adminis-
7 trator finds is not of sufficiently high quality; and
8 (2) all Agency research the Assistant Adminis-
9 trator finds duplicates other Agency research.

10 **SEC. 505. GRADUATE STUDENT FELLOWSHIPS.**

11 In carrying out the graduate student fellowship pro-
12 gram for which funds are authorized to be appropriated
13 by this title, the Administrator shall ensure that any fel-
14 lowship award to a student selected after the date of the
15 enactment of this Act is used only to support scientific
16 research that would further missions of the Office of Re-
17 search and Development in fields in which there exists or
18 is projected to exist a shortage in the number of scientists.

19 **SEC. 506. SCIENCE ADVISORY BOARD.**

20 (a) ANNUAL REPORT.—The Science Advisory Board
21 shall submit to Congress and to the Administrator an an-
22 nual report that contains the views of the Science Advisory
23 Board on proposed research programs as described in the
24 President's budget for research, development, and dem-
25 onstration activities at the Environmental Protection

1 Agency. Such report shall be submitted to Congress as
2 soon as practicable after the submission of the President's
3 budget to Congress. The Administrator shall cooperate
4 with the Director of the Science Advisory Board, particu-
5 larly with respect to the timely provision of budget infor-
6 mation to the Science Advisory Board, to allow the Science
7 Advisory Board to carry out its duties under this sub-
8 section.

9 (b) EVALUATION.—The Science Advisory Board shall
10 conduct periodic evaluations of selected areas of the cur-
11 rent and planned research, development, and demonstra-
12 tion activities of the Environmental Protection Agency.
13 The areas of evaluation shall be selected by the Science
14 Advisory Board in consultation with the Administrator,
15 the Office of Research and Development, other Agency
16 programs, and appropriate committees of the Congress.
17 Reports containing the Science Advisory Board's evalua-
18 tions and recommendations shall be filed with such com-
19 mittees and the Administrator. The Administrator shall
20 provide to such committees a written response to the
21 Science Advisory Board's evaluation and recommendations
22 within 60 days after the Science Advisory Board's report
23 has been submitted.

24 (c) REVIEW OF CERTAIN RESEARCH ACTIVITIES.—
25 The Science Advisory Board shall annually review the re-

1 search activities of the Environmental Protection Agency
2 and shall include the results of such review in the annual
3 report required by subsection (a).

4 (d) SUBMISSION TO CONGRESS.—The Administrator
5 shall submit to the Congress any report required by law
6 to be submitted to the Administrator by the Science Advi-
7 sory Board. The Administrator shall make any such sub-
8 mission not later than 60 days after the Administrator
9 receives the report from the Science Advisory Board.

10 TITLE VI—NATIONAL INSTITUTE 11 OF STANDARDS AND TECH- 12 NOLOGY

13 SEC. 601. AUTHORIZATION OF APPROPRIATIONS.

14 There are authorized to be appropriated the follow-
15 ing:

16 (1) For Scientific and Technical Research and
17 Services of the National Institute of Standards and
18 Technology, $280,600,000 for fiscal year 1997, of
19 which—

20 (A) $38,407,000 shall be for Electronics
21 and Electrical Engineering;

22 (B) $18,747,000 shall be for Manufactur-
23 ing Engineering;

24 (C) $33,939,000 shall be for Chemical
25 Science and Technology;

1 (D) $28,048,000 shall be for Physics;
2 (E) $54,589,000 shall be for Material
3 Science and Engineering;
4 (F) $13,085,000 shall be for Building and
5 Fire Research;
6 (G) $43,076,000 shall be for Computer
7 Science and Applied Mathematics;
8 (H) $18,950,000 shall be for Technical As-
9 sistance;
10 (I) $28,772,000 shall be for Research Sup-
11 port; and
12 (J) $2,987,000 shall be for the Malcolm
13 Baldrige National Quality Program under sec-
14 tion 17 of the Stevenson-Wydler Technology In-
15 novation Act of 1980 (15 U.S.C. 3711a); and
16 (2) for Construction of Research Facilities of
17 the National Institute of Standards and Technology,
18 $105,240,000 for fiscal year 1997.

TITLE VII—FEDERAL AVIATION ADMINISTRATION RESEARCH, ENGINEERING, AND DEVELOPMENT

SEC. 701. SHORT TITLE.

This title may be cited as the "FAA Research, Engineering, and Development Management Reform Act of 1996".

SEC. 702. FINDINGS.

The Congress finds that—

(1) considerable effort and expenditure has been devoted since 1981 to the modernization of the National Airspace System, with limited results;

(2) long-standing management, organizational, and cultural impediments at the Federal Aviation Administration have led to cost overruns, schedule delays, program terminations, and other wasteful inefficiencies;

(3) a lack of coordination between the technology developers and operational sections of the Federal Aviation Administration has led to research, engineering, and development programs that are unbalanced because they either are too technology driven or have operational requirements that are unrealistic or unwarranted;

1 (4) the research, engineering, and development
2 functions of the Federal Aviation Administration
3 have been carried out without the benefit of critical
4 management education and competencies;
5 (5) the failure to employ contemporary manage-
6 ment techniques and industry best practices has led
7 to inadequate contractor oversight and poor risk
8 management; and
9 (6) significant improvements in modernizing the
10 National Airspace System will require fundamental
11 changes in the Federal Aviation Administration's ac-
12 quisition management system and in the orientation
13 of the officials who implement the system.
14 **SEC. 703. DEFINITIONS.**
15 For purposes of this title—
16 (1) the term "affordable" means having life-
17 cycle costs that are in consonance with the long-
18 range funding and operational design plans for the
19 National Airspace System;
20 (2) the term "evolutionary acquisition" means
21 an acquisition strategy in which a core capability is
22 fielded with a modular structure that allows for
23 changes as requirements are refined;
24 (3) the term "life-cycle costs" means the total
25 costs to the Federal Government of a system over its

1 useful life, including the costs of research, develop-
2 ment, acquisition, support, and disposal;
3 (4) the term "nondevelopmental" means not re-
4 quiring significant further development to be made
5 usefully operational; and
6 (5) the term "pre-planned product improve-
7 ment" means an acquisition strategy that defers
8 technically difficult or unknown system requirements
9 to mitigate risks or to field a system that incor-
10 porates design considerations that facilitate future
11 changes.

12 **SEC. 704. MANAGEMENT PRINCIPLES.**

13 The Federal Aviation Administration shall develop,
14 implement, and maintain a disciplined acquisition man-
15 agement system that facilitates the transforming of broad-
16 ly stated requirements into affordable, operationally effec-
17 tive and suitable products and services to meet the needs
18 of users of the National Airspace System. Such acquisition
19 management system shall be based on and incorporate the
20 following principles:
21 (1) The employment and integration of—
22 (A) a process to establish and validate re-
23 quirements;
24 (B) full life-cycle acquisition management;
25 and

1 (C) planning, programming, and budget-
2 ing.
3 (2) Full involvement of both acquisition and
4 operational Federal Aviation Administration person-
5 nel in the processes described in paragraph (1)(A),
6 (B), and (C).
7 (3) Early and continuous involvement of Na-
8 tional Airspace System operators and users, advisory
9 committees, and industry vendors and experts in es-
10 tablishing and stabilizing sound, realistic operational
11 requirements.
12 (4) Assignment of acquisition officials based on
13 demonstrated leadership, professionalism, and prov-
14 en acquisition management competencies, consistent
15 with their positional responsibility and authority.
16 (5) Full life-cycle, event-driven acquisition
17 strategies which explicitly link major interim pro-
18 gram decisions and contractual commitments to
19 demonstrated accomplishments in research, engi-
20 neering, and development.
21 (6) The balancing of system design require-
22 ments and constraints based on cost-benefit sensitiv-
23 ity analysis.
24 (7) Consideration of maximum practicable use
25 of nonmaterial, nondevelopmental, or commercial so-

1 lutions before embarking on protracted research, en-
2 gineering, and development activities by the Federal
3 Aviation Administration.
4 (8) Consideration of evolutionary acquisition
5 and pre-planned product improvement strategies to
6 mitigate risks and expeditiously field products and
7 services.
8 (9) Use of contemporary management tech-
9 niques and industry best practices to—
10 (A) compare the current status of a pro-
11 gram to where it should be;
12 (B) reassess the goals of a program and
13 the plans for achieving those goals;
14 (C) assess program risks and strategies for
15 mitigating those risks; and
16 (D) assess whether the program is afford-
17 able.
18 **SEC. 705. DOCUMENT OF APRIL 1, 1996.**
19 The Congress recognizes that the acquisition man-
20 agement system set forth in the document dated April 1,
21 1996, issued by the Federal Aviation Administration, is
22 substantially compatible with the principles stated in sec-
23 tion 704 of this title. The Federal Aviation Administration
24 may implement that proposed system as a suitable compli-
25 ance with the requirements of this title, and may modify

1 elements of that system to the extent that those modifica-
2 tions conform with the principles stated in section 704 of
3 this title.

4 **SEC. 706. AUTHORIZATION OF APPROPRIATIONS.**

5 Section 48102(a) of title 49, United States Code, is
6 amended—

7 (1) by striking "and" at the end of paragraph
8 (1)(J);

9 (2) by striking the period at the end of para-
10 graph (2)(J) and inserting in lieu thereof "; and";
11 and

12 (3) by adding at the end the following new
13 paragraph:

14 "(3) for fiscal year 1997—

15 "(A) $10,000,000 for system development
16 and infrastructure projects and activities;

17 "(B) $39,911,000 for capacity and air
18 traffic management technology projects and ac-
19 tivities;

20 "(C) $20,371,000 for communications,
21 navigation, and surveillance projects and activi-
22 ties;

23 "(D) $6,411,000 for weather projects and
24 activities;

"(E) $6,000,000 for airport technology projects and activities;

"(F) $37,978,000 for aircraft safety technology projects and activities;

"(G) $36,045,000 for system security technology projects and activities;

"(H) $23,682,000 for human factors and aviation medicine projects and activities;

"(I) $3,800,000 for environment and energy projects and activities;

"(J) $1,500,000 for innovative/cooperative research projects and activities; and

"(K) such sums as may be necessary for other research, engineering, and development activities described in the President's fiscal year 1997 budget request to the Congress under the category 'Engineering, development, test, and evaluation' of Facilities and Equipment.".

TITLE VIII—NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM

SEC. 801. AUTHORIZATION OF APPROPRIATIONS.

Section 12 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7706) is amended—

1 (1) in subsection (a)(7) by striking "and
2 $25,750,000 for the fiscal year ending September
3 30, 1996" and inserting in lieu thereof
4 "$25,750,000 for the fiscal year ending September
5 30, 1996, and $18,825,000 for the fiscal year end-
6 ing September 30, 1997";
7 (2) in subsection (b) by striking "and
8 $50,676,000 for the fiscal year ending September
9 30, 1996" and inserting in lieu thereof
10 "$50,676,000 for the fiscal year ending September
11 30, 1996, and $46,130,000 for the fiscal year end-
12 ing September 30, 1997";
13 (3) in subsection (c) by adding at the end the
14 following new sentence: "There are authorized to be
15 appropriated, out of funds otherwise authorized to
16 be appropriated to the National Science Foundation,
17 $28,400,000 for fiscal year 1997, including
18 $17,500,000 for engineering research and
19 $10,900,000 for geosciences research."; and
20 (4) in subsection (d) by adding at the end the
21 following new sentence: "There are authorized to be
22 appropriated, out of funds otherwise authorized to
23 be appropriated to the National Institute of Stand-
24 ards and Technology, $1,932,000 for fiscal year
25 1997.".

TITLE IX—MISCELLANEOUS

SEC. 901. PROHIBITION OF LOBBYING ACTIVITIES.

None of the funds authorized by this Act shall be available for any activity whose purpose is to influence legislation pending before the Congress, except that this shall not prevent officers or employees of the United States or of its departments or agencies from communicating to Members of Congress on the request of any Member or to Congress, through the proper channels, requests for legislation or appropriations which they deem necessary for the efficient conduct of the public business.

SEC. 902. LIMITATION ON APPROPRIATIONS.

(a) EXCLUSIVE AUTHORIZATION FOR FISCAL YEAR 1997.—Notwithstanding any other provision of law, no sums are authorized to be appropriated for fiscal year 1997 for the activities for which sums are authorized by this Act unless such sums are specifically authorized to be appropriated by this Act.

(b) SUBSEQUENT FISCAL YEARS.—No sums are authorized to be appropriated for any fiscal year after fiscal year 1997 for the activities for which sums are authorized by this Act unless such sums are specifically authorized to be appropriated by Act of Congress with respect to such fiscal year.

1 **SEC. 903. ELIGIBILITY FOR AWARDS.**

2 (a) IN GENERAL.—The head of each Federal agency
3 for which funds are authorized under this Act shall ex-
4 clude from consideration for awards of financial assistance
5 made by that agency after fiscal year 1996 any person
6 who received funds, other than those described in sub-
7 section (b), appropriated for a fiscal year after fiscal year
8 1996, from any Federal funding source for a project that
9 was not subjected to a competitive, merit-based award
10 process. Any exclusion from consideration pursuant to this
11 section shall be effective for a period of 5 years after the
12 person receives such Federal funds.

13 (b) EXCEPTION.—Subsection (a) shall not apply to
14 awards to persons who are members of a class specified
15 by law for which assistance is awarded to members of the
16 class according to a formula provided by law.

NATIONAL SCIENCE FOUNDATION FY 1997 BUDGET REQUEST SUMMARY

[In millions of dollars]

ACCOUNT TITLE	FY 1996 Estimate	FY 1997 Request	FY 1997 Auth.
Research and Related Activities	2274	2472	2340.3
Education and Human Resources	599	619	600
Major Research Equipment	70	95	80
Academic Research Facilities Modernization	100	0	100
Salaries and Expenses	127.3	*134	120
Office of Inspector General	4.5	5	5
Headquarters Relocation	5.2	—	5.2
TOTAL	3180	3325	3250.5

*Includes $5.2 million for HQ Relocation.

FY97 NASA Authorization

ACCOUNT	FY96 est.	FY97 Req.	FY97 Mark	FY97 Diff.	FY96 Diff.
HUMAN SPACE FLIGHT	**5456.60**	**5362.90**	**5362.90**	**0.00**	**-93.70**
Space Station	1863.60	1802.00	1802.00	0.00	-61.60
Mir Support (w/i $2.1B cap)	29.20	38.20	38.20	0.00	+9.00
Shuttle Operations	2485.40	2514.90	2514.90	0.00	+29.50
Shuttle Upgrades	663.40	636.00	636.00	0.00	-27.40
Payload & Utilization	315.00	271.80	271.80	0.00	-43.20
U.S./Russian Cooperation	100.00	100.00	100.00	0.00	0.00
SCIENCE, AERO AND TECH	**5845.90**	**5862.10**	**5734.80**	**-127.30**	**-111.10**
Space Science	**2032.60**	**1857.30**	**2167.40**	**+310.10**	**+134.80**
AXAF	237.60	178.60	178.60	0.00	-59.00
Cassini	191.50	106.70	106.70	0.00	-84.80
GP-B	51.50	59.60	59.60	0.00	+8.10
Payload/Instrument Dev.	30.70	16.90	32.50	+15.60	+1.80
Astro-E	7.40	5.60	5.60	0.00	-1.80
Mars Instruments	1.40	0.60	0.60	0.00	-0.80
Shuttle/International Payloads	16.20	10.70	26.30	+15.60	+10.10
Tethered Satellite System	5.70	0.00	0.00	0.00	-5.70
Explorers	132.20	135.00	160.00	+25.00	+27.80
ACE	31.50	24.70	24.70	0.00	-6.80
FUSE	39.00	39.60	39.60	0.00	+0.60
MIDEX	0.00	19.80	19.80	0.00	+19.80
SMEX	39.50	38.70	38.70	0.00	-0.80
Explorer Planning	22.20	12.20	37.20	+25.00	+15.00
Discovery	102.20	74.80	104.80	+30.00	+2.60
Lunar Prospector	36.40	19.80	19.80	0.00	-16.60
Future Missions	23.80	55.00	85.00	+30.00	+61.20
Mars Pathfinder	33.70	0.00	0.00	0.00	-33.70
NEAR	8.30	0.00	0.00	0.00	-8.30
Mars Surveyor	111.90	90.00	120.00	+30.00	+8.10
Mars Global Surveyor	58.20	9.40	9.40	0.00	-48.80
Mars Surveyor '98	52.30	77.50	77.50	0.00	+25.20
Future Missions	1.40	3.10	33.10	+30.00	+31.70
New Millennium	30.00	21.50	40.00	+18.50	+10.00
MO&DA	563.80	592.40	642.40	+50.00	+78.60
Supporting R&T	238.90	259.20	309.20	+50.00	+70.30
Suborbital Program	88.00	69.10	97.10	+28.00	+9.10
SOFIA	30.00	26.30	46.30	+20.00	+16.30
KAO	3.40	0.00	0.00	0.00	-3.40
Balloon Program	16.00	14.00	16.00	+2.00	0.00
Sounding Rockets	38.60	28.80	34.80	+6.00	-3.80
Launch Services	254.30	253.50	282.50	+29.00	+28.20
Space Science Data Purchase	0.00	0.00	34.00	+34.00	+34.00
Life & Microgravity Science	**488.50**	**498.50**	**498.50**	**0.00**	**+10.00**
Life Sciences	136.40	106.20	106.20	0.00	-30.20
Microgravity Science	133.00	144.30	144.30	0.00	+11.30

FY97 NASA Authorization—Continued

ACCOUNT	FY96 est.	FY97 Req.	FY97 Mark	FY97 Diff.	FY96 Diff.
Shuttle/Spacelab Missions	77.60	54.40	54.40	0.00	-23.20
Aerospace Medicine	8.00	6.50	6.50	0.00	-1.50
Station Payload Facilities	133.50	187.10	187.10	0.00	+53.60
Mission to Planet Earth	**1289.40**	**1402.10**	**1028.40**	**-373.70**	**-261.00**
Earth Observing System					
AM-1 Spacecraft	81.20	40.00	40.00	0.00	-41.20
AM-1 Instruments	25.10	3.80	3.80	0.00	-21.30
AM-1 Management	63.70	31.10	31.10	0.00	-32.60
all other AM series	0.00	9.80	4.00	-5.80	+4.00
Landsat 7 Spacecraft	61.70	29.10	29.10	0.00	-32.60
Landsat 7 ETM+	4.20	4.00	4.00	0.00	-0.20
Landsat 7 Ground System	4.00	0.00	0.00	0.00	-4.00
Landsat 7 Management	8.90	40.80	40.80	0.00	+31.90
PM-1 Spacecraft	20.80	82.10	0.00	-82.10	-20.80
PM-1 Instruments	69.40	44.20	44.20	0.00	-25.20
PM-1 Management	11.60	44.90	0.00	-44.90	-11.60
Chem-1 Spacecraft	0.50	1.20	0.00	-1.20	-0.50
Chem-1 Instruments	25.50	68.00	0.00	-68.00	-25.50
Chem-1 Management	1.30	8.20	0.00	-8.20	-1.30
Special Spacecraft:	71.70	66.70	63.30	-3.40	-8.40
Alt Radar-1	8.60	9.30	9.30	0.00	+0.70
Alt Laser-1	1.90	5.50	3.50	-2.00	+1.60
Solstice Instrument	0.30	0.30	0.30	0.00	0.00
CERES on TRMM	0.40	0.20	0.20	0.00	-0.20
LIS on TRMM	0.30	0.30	0.30	0.00	0.00
CERES Follow-On	1.40	3.30	3.30	0.00	+1.90
ACRIM	4.90	3.80	2.40	-1.40	-2.50
Seawinds	23.70	21.00	21.00	0.00	-2.70
Ocean Color	5.40	5.00	5.00	0.00	-0.40
SAGE-III (Russian)	14.80	11.40	11.40	0.00	-3.40
SAGE-III (Station payload)	3.70	9.00	9.00	0.00	+5.30
all other special spacecraft	6.30	-2.40	-2.40	0.00	-8.70
New Millennium Program (NMP)	10.00	10.00	10.00	0.00	0.00
Algorithms	75.70	101.80	88.80	-13.00	+13.10
EOS Data Information System	244.20	261.10	130.00	-131.10	-111.20
Earth Probes	46.00	47.10	47.10	0.00	+1.10
Research & Data Analysis	337.80	379.10	368.10	-11.00	+30.30
MTPE Science	248.20	277.10	277.10	0.00	+28.90
data purchase	0.00	50.00	50.00	0.00	+50.00
research and analysis	145.00	145.00	145.00	0.00	0.00
science teams	19.40	16.80	16.80	0.00	-2.60
EOS science	56.50	47.50	47.50	0.00	-9.00
Airborne science	27.30	17.80	17.80	0.00	-9.50
Ops/Data Retrieval/Storage	89.60	102.00	91.00	-11.00	+1.40
MO&DA	53.90	65.10	65.10	0.00	+11.20
HPCC	26.10	28.30	17.30	-11.00	-8.80
Information Systems	9.60	8.60	8.60	0.00	-1.00
Earth System Science Building	17.00				
GLOBE	5.00	5.00	5.00	0.00	0.00
Launch Services	107.10	124.10	119.10	-5.00	+12.00
Aeronautical Research & Tech	**845.90**	**857.80**	**823.40**	**-34.40**	**-22.50**
Research & Technology Base	350.30	354.40	354.40	0.00	+4.10
HPCC	32.20	23.30	23.30	0.00	-8.90
# Aerondynamic Simulation	48.10	38.60	38.60	0.00	-9.50
High-Speed Research	245.50	254.30	254.30	0.00	+8.80
Advanced Subsonic Tech.	169.80	187.20	152.80	-34.40	-17.00
Space Access & Tech	**641.30**	**725.00**	**711.00**	**-14.00**	**+69.70**
Advanced Space Transportation	188.50	324.70	324.70	0.00	+136.20
Spacecraft & Remote Sensing	174.10	151.00	151.00	0.00	-23.10
Advanced Smallsat Tech.	39.10	30.00	30.00	0.00	-9.10
Space Processing	54.00	41.80	41.80	0.00	-12.20
Flight Programs	8.80	0.00	0.00	0.00	-8.80
Commercial Tech. Programs	27.40	24.20	11.80	-12.40	-15.60

FY97 NASA Authorization—Continued

ACCOUNT	FY96 est.	FY97 Req.	FY97 Mark	FY97 Diff.	FY96 Diff.
Tech. Transfer Agent/NTTC	17.10	7.30	0.00	-7.30	-17.10
SBIR Funding Allocation			-0.50	-0.50	-0.50
Advanced Concepts	6.60	3.80	10.00	+6.20	+3.40
SBIR	125.70	142.20	142.20	0.00	+16.50
Mission Communication	**441.30**	**420.60**	**410.60**	**-10.00**	**-30.70**
Academic Programs	**106.90**	**100.80**	**95.50**	**-5.30**	**-11.40**
MISSION SUPPORT	**2502.20**	**2562.20**	**2380.80**	**-181.40**	**-121.40**
SRQA	37.60	36.70	36.70	0.00	-0.90
Space Communication	269.40	291.40	281.25	-10.15	+11.85
Space Ntwk. (includes TDRS)	156.70	185.10	185.10	0.00	+28.40
Telecommunications	112.70	106.30	96.15	-10.15	-16.55
Research & Program Mgt.	2052.80	2078.80	1957.85	-120.95	-94.95
Personnel & Related Costs	1565.10	1611.00	1529.50	-81.50	-35.60
Travel	45.50	45.50	40.00	-5.50	-5.50
Research Operations Support	442.20	422.30	388.30	-34.00	-53.90
facilities services	137.00	141.90	120.90	-21.00	-16.10
technical services	150.60	132.40	132.40	0.00	-18.20
mgt. and operations	154.60	148.00	135.00	-13.00	-19.60
Construction of Facilities	142.40	155.30	105.00	-50.30	-37.40
INSPECTOR GENERAL	**16.00**	**17.00**	**17.00**	**0.00**	**+1.00**
TOTAL	**13820.70**	**13804.20**	**13495.50**	**-308.70**	**-325.20**
Office of Space Commerce	0.46	0.50	0.50	0.00	+0.04
OCST	5.76	6.17	5.77	-0.40	+0.01

UNITED STATES FIRE ADMINISTRATION FY 1997 BUDGET REQUEST SUMMARY

[In millions of dollars]

ACCOUNT TITLE	FY 1996 Estimate	FY 1997 Request	FY 1997 Auth.
United States Fire Administration	28.491	27.56	27.56

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With	
					(+ or -) FY 1996 Estimate	(+ or -) FY 1997 Request
NATIONAL OCEAN SERVICE:						
Mapping, charting, and geodesy	52,816	56,667	58,916	56,663	-4	-2,253
Observation and assessment	64,659	59,249	65,874	46,075	-13,174	-19,799
Ocean and coastal management*	66,811	59,385	64,716	10,927	-48,458	-53,789
Total, National Ocean Service	**184,286**	**175,301**	**189,506**	**113,665**	**-61,636**	**-75,841**
OCEANIC AND ATMOSPHERIC RESEARCH:						
Climate and air quality research	105,042	101,772	122,681	99,272	-2,500	-23,409
Atmospheric programs	46,946	43,446	43,766	43,182	-264	-584
Ocean and Great Lakes programs	88,591	80,726	66,101	68,108	-12,618	2,007
Total, Oceanic and Atmospheric Research	**240,579**	**225,944**	**232,548**	**210,562**	**-15,382**	**-21,986**
NATIONAL WEATHER SERVICE:						
Operations and research	513,269	473,758	471,672	445,668	-28,090	-26,004
Systems acquisition	145,429	132,287	198,994	180,201	47,914	-18,793

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With (+ or -) FY 1996 Estimate	Mark Compared With (+ or -) FY 1997 Request
Total, National Weather Service	**658,698**	**606,045**	**670,666**	**625,869**	**19,824**	**-44,797**
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE (NESDIS)						
Satellite observing systems	351,741	430,371	486,933	419,094	-11,277	-67,839
Environmental data management systems	35,665	41,165	44,898	41,165	0	-3,733
Total, NESDIS	**387,406**	**471,536**	**531,831**	**460,259**	**-11,277**	**-71,572**
PROGRAM SUPPORT:						
Administration and services	74,697	62,206	64,694	60,706	-1,500	-3,988
Marine services	62,011	61,100	56,292	56,292	-4,808	0
Aircraft services	10,453	9,153	10,182	9,153	0	-1,029
Total, program support	**147,161**	**132,459**	**131,168**	**126,151**	**-6,308**	**-5,017**
NATIONAL MARINE FISHERIES SERVICE (NMFS)*						
Total, NMFS	**321,650**	**281,642**	**305,640**	**240,000**	**-41,642**	**-65,640**
General reduction to operations, research and facilities	0	0	0	-11,147	-11,147	-10,000
Total, Operations, Research and Facilities	**1,939,780**	**1,892,927**	**2,061,359**	**1,765,359**	**-127,568**	**-296,000**
Construction	79,883	50,000	37,366	29,570	-20,430	-7,796
NOAA fleet modernization	22,936	8,000	12,000	0	-8,000	-12,000
Other	2,199	2,477	3	0	-2,477	-3
TOTAL, NOAA	**2,044,798**	**1,953,404**	**2,110,728**	**1,794,929**	**-158,475**	**-315,799**
NATIONAL OCEAN SERVICE:						
MAPPING, CHARTING, AND GEODESY:						
Mapping and charting	30,899	34,000	36,086	34,000	0	-2,086
Automated nautical charting system II	1,250	2,500	2,500	2,500	0	0
Subtotal, mapping and charting	32,149	36,500	38,586	36,500	0	-2,086
Subtotal, geodesy	20,667	20,167	20,330	20,163	-4	-167
Total, mapping, charting, and geodesy	**52,816**	**56,667**	**58,916**	**56,663**	**-4**	**-2,253**
OBSERVATION AND ASSESSMENT:						
OBSERVATION AND PREDICTION:						
Observation and prediction	12,358	11,000	11,679	11,000	0	-679
Circulatory Survey Program	700	0	0	0	0	0
Chesapeake Bay observation buoys	400	400	0	0	-400	0
Ocean services	4,418	3,000	3,000	3,000	0	0
Subtotal, Observation and prediction	**17,876**	**14,400**	**14,679**	**14,000**	**-400**	**-679**
ESTUARINE AND COASTAL ASSESSMENT:						
Estuarine and coastal assessment	2,674	2,674	2,674	2,674	0	0
Ocean Assessment Program	24,528	21,925	24,204	21,925	0	-2,279
Damage assessment	1,200	1,200	3,200	1,200	0	-2,000
Transfer from damage assessment fund*	7,838	6,550	5,276	5,276	-1,274	0
Oil Pollution Act of 1990*	1,300	1,000	1,000	1,000	0	0
Subtotal, estuarine and coastal assessment	**37,540**	**33,349**	**36,354**	**32,075**	**-1,274**	**-4,279**
COASTAL OCEAN SCIENCE:						
Coastal Ocean Program	9,243	11,500	14,841	Moved to OAR	NA	NA

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With (+ or -) FY 1996 Estimate	Mark Compared With (+ or -) FY 1997 Request
Subtotal, Coastal Ocean Science	**9,243**	**11,500**	**14,841**	**0**	**NA**	**NA**
Total, Observation and assessment	**64,659**	**59,249**	**65,874**	**46,075**	**-13,174**	**-19,799**
Total, Ocean and Coastal Management*	**66,811**	**59,385**	**64,716**	**10,927**	**-48,458**	**-53,789**
TOTAL, NATIONAL OCEAN SERVICE	184,286	175,301	189,506	113,665	-61,636	-75,841
OCEANIC AND ATMOSPHERIC RESEARCH (OAR)						
CLIMATE AND AIR QUALITY RESEARCH:						
Interannual & Seasonal Climate Research/and related Global Climate Change	64,770	65,500	76,712	65,500	0	-11,212
Long-Term Climate and Air Quality Research	27,772	27,272	29,402	27,272	0	-2,130
Vents	0	2,500	0	0	-2,500	0
High Performance Computing	5,500	6,500	9,567	6,500	0	-3,067
Globe	7,000	0	7,000	0	0	-7,000
Total, Climate and Air Quality Research	**105,042**	**101,772**	**122,681**	**99,272**	**-2,500**	**-23,409**
ATMOSPHERIC PROGRAMS:						
Weather Research	37,113	33,613	33,905	33,613	0	-292
Wind Profiler	4,350	4,350	4,350	4,350	0	0
Subtotal, Weather Research	41,463	37,963	38,255	37,963	0	-292
Solar-Terrestrial Services and Research	5,483	5,483	5,511	5,219	-264	-292
Total, Atmospheric Programs	**46,946**	**43,446**	**43,766**	**43,182**	**-264**	**-584**
OCEAN AND GREAT LAKES PROGRAMS:						
Marine Prediction Research	15,175	15,026	14,808	14,808	-218	0
Southeast Fisheries Oceanographic Coordinated Investigations	450	400	0	0	-400	0
Lake Champlain Study	150	0	0	0	0	0
Pacific Island Technical Assistance	190	0	0	0	0	0
Vents	2,496	0	2,500	0	0	-2,500
Total, Marine Prediction Research	**18,461**	**15,426**	**17,308**	**14,808**	**-618**	**-2,500**
SEA GRANT/COP:						
Sea Grant College Program	51,698	53,300	48,793	36,000	-17,300	-12,793
Sea Grant-Oyster Disease	1,500	0	0	0	0	0
National Coastal R&D Institute	1,000	0	0	0	0	0
Subtotal, Sea Grant	54,198	53,300	48,793	36,000	-17,300	-12,793
Subtotal, Coastal Ocean Program	0	0	0	17,300	NA	NA
Total, Sea Grant/COP	**54,198**	**53,300**	**48,793**	**53,300**	**0**	**4,507**
UNDERSEA RESEARCH PROGRAM:						
Total, Undersea Research Program	**15,932**	**12,000**	**0**	**0**	**-12,000**	**0**
Total, Ocean & Great Lakes Programs	**88,591**	**80,726**	**66,101**	**68,108**	**-12,618**	**2,007**
TOTAL, OCEANIC AND ATMOSPHERIC RESEARCH	**240,579**	**225,944**	**232,548**	**210,562**	**-15,382**	**-21,986**
NATIONAL WEATHER SERVICE						
OPERATIONS AND RESEARCH:						
Local Warnings and Forecasts	321,671	405,300	409,020	391,950	-13,350	-17,070

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[DOLLARS IN THOUSANDS]

Account Title	FY 1995 Actual	FY 1996 Conference	FY 1997 Request	FY 1997 Mark	Mark Compared With (+ or -) FY 1996 Estimate	Mark Compared With (+ or -) FY 1997 Request
Modernization and Restructuring Demonstration and Implementation (MARDI)	115,946	0	0	0	0	0
Radiosonde replacement	1,339	0	4,255	4,255	4,255	0
Susquehanna River Basin Flood System	1,250	669	669	669	0	0
Agricultural and Fruit Frost Program	2,316	0	0	0	0	0
Fire Weather Services	449	0	0	0	0	0
Aviation Forecasts	35,596	35,596	35,596	35,596	0	0
Regional Climate Centers	3,200	2,000	0	0	-2,000	0
De-certification/Privatization	na	na	-10,000	-17,000		-7,000
Subtotal, Local Warnings and Forecasts	**481,767**	**443,565**	**439,540**	**415,470**	**-28,095**	**-24,070**
Central Forecast Guidance	29,015	28,193	29,543	28,198	5	-1,345
Atmospheric and Hydrological Research	2,487	2,000	2,589	2,000	0	-589
Total, Operations and Research	**513,269**	**473,758**	**471,672**	**445,668**	**-28,090**	**-26,004**
SYSTEMS ACQUISITIONS:						
Public Warning and Forecast Systems:						
Next Generation Weather Radar (NEXRAD)	82,982	53,335	53,145	53,145	-190	0
Automated Surface Observing System (ASOS)	17,515	16,952	10,056	10,056	-6,896	0
Advanced Weather Interactive Processing System (AWIPS)/NOAA Port	34,947	50,000	119,800	105,000	55,000	-14,800
Computer Facility Upgrades	9,985	12,000	15,993	12,000	0	-3,993
Total, Systems Acquisition	**145,429**	**132,287**	**198,994**	**180,201**	**47,914**	**-18,793**
TOTAL, NATIONAL WEATHER SERVICE	**658,698**	**606,045**	**670,666**	**625,869**	**19,824**	**-44,797**
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE (NESDIS)						
SATELLITE OBSERVING SYSTEMS:						
Polar Spacecraft and Launching	146,228	174,765	147,644	147,664	-27,101	20
Polar Convergence/Joint Program Office	16,000	39,500	78,200	39,500	0	-38,700
Geostationary Spacecraft and Launching	132,242	153,106	205,922	181,378	28,272	-24,544
Ocean Remote Sensing	6,000	4,000	1,552	1,552	-2,448	0
Environmental Observing Services	51,271	49,000	53,615	49,000	0	-4,615
LandSat Operations	0	10,000	0	0	-10,000	0
Total, Satellite Observing Systems	**351,741**	**430,371**	**486,933**	**419,094**	**-11,277**	**-67,839**
ENVIRONMENTAL DATA MANAGEMENT SYSTEMS:						
Data and Information Services	24,365	29,865	30,098	29,865	0	-233
Environmental Services Data and Information Management (ESDIM)	11,300	11,300	14,800	11,300	0	-3,500
Total, Environmental Data Management Systems	**35,665**	**41,165**	**44,898**	**41,165**	**0**	**-3,733**
TOTAL, NESDIS	**387,406**	**471,536**	**531,831**	**460,259**	**-11,277**	**-71,572**

Proposed Authorization Figures for the EPA Science and Technology Account
[Dollars in Thousands]

Account Title	FY1996 Authorization	Estimated FY1996 App.	FY1997 Request	FY1997 Mark	Mark V FY1997 Request	Mark V FY1996 App.
Total, AIR RESEARCH	**96,300.9**	**95,000.0**	**88,163.2**	**75,519.9**	**-12,643**	**-19,480.1**
Air Quality Research	**93,915.2**	**75,000.0**	**69,723.5**	**74,119.9**	**4,396**	**-880.1**
Criteria Air	57,145.1		26,782.2	41,000.0	14,218	
Air Toxics	6,319.60		9,102.0	12,000.0	2,898	
Indoor Air	0		3,664.2	0	-3,664	
Infrastructure	26,803.8		30,175.1	21,119.9	-9,055	
Global Climate Change	**2,385.7**	**20,000.0**	**18,439.7**	**1,400.0**	**-17,040**	**-18,600.0**
Stratospheric Ozone Depletion	2,385.7		1,256.5	1,400.0	144	
Climate Change Action Plan	0.0		6,200.0	0.0	-6,200	
Climate C. Research/ Infrastruct.	0		10,983.2	0.0	-10,983	
WATER QUALITY RESEARCH	**21,243.1**	**20,000.0**	**26,293.8**	**26,294.0**	**0**	**6,294.0**
Ecosystem Protection	9,188.9		12,007.7	12,007.7	0	
Infrastructure	12,054.2		14,286.1	14,286.1	0	
DRINKING WATER RESEARCH	**20,652.4**	**20,000.0**	**26,593.7**	**26,593.7**	**0**	**6,593.7**
Drinking Water	10,376.5		12,156.6	13,361.6	1,205	
Infrastructure	10,275.9		14,437.1	13,232.1	-1,205	
PESTICIDE RESEARCH	**13,345.2**	**12,000.0**	**20,632.0**	**20,632.0**	**0**	**8,632.0**
Ecosystem Protection	0.0		4,232.9	4,232.9	0	
Human Health Protection	5,531.1		6,270.8	6,887.3	617	
Special Envir. Problems	1,243.3		0.0	0.0	0	
Infrastructure	6,152.4		10,128.3	9,511.8	-617	
TOXIC SUBSTANCES RESEARCH	**11,053.9**	**14,000.0**	**12,341.5**	**12,341.5**	**0**	**-1,658.5**
Ecosystem Protection	974.4		2,982.8	2,982.8	0	
Human Health Project	2,941.2		2,279.7	2,400.0	120	
Special Envir. Problems	1,113.0		220.9	220.9	220.9	0
Infrastructure	6,025.3		6,858.1	6,738.1	-120	
HAZARDOUS WASTE RESEARCH	**21,020.2**	**20,000.0**	**10,343.9**	**12,000.0**	**1,656**	**-8,000.0**
Waste/Site/Risk	1,430.8		1,498.7	3,154.8	1,656	
Waste Management	8,868.1		3,718.1	3,718.1	0	
New Technology	678.8		173.1	173.1	0	
Infrastructure	10,042.5		4,954.0	4,954.0	0	
Total, MULTIMEDIA	**240,943.2**	**265,000.0**	**300,837.0**	**256,346.5**	**-44,491**	**-8,653.5**
Multimedia Research	**158,656.8**	**210,000.0**	**211,786.2**	**174,060.1**	**-37,726**	**-35,939.9**
Ecosystem Protection	47,351.7		58,887.2	58,887.2	0	
New Technologies	12,610.0		40,741.3	13,121.9	-27,619	
Human Health Project	21,983.0		16,065.4	17,000.0	935	
Special Environmental Prob.	1,706.8		7,137.1	8,000.0	863	
Infrastructure	75005.3		88,955.2	77,051.0	-11,904	
Headquarters Infrastructure	**9,254.8**	**7,000.0**	**10,837.2**	**9,254.8**	**-1,582**	**2,254.8**
Lab and Field Expenses	**73,031.6**	**48,000.0**	**78,213.6**	**73,031.6**	**-5,182**	**25,031.6**
MISSION & POLICY MANAGEMENT	**6,399.3**	**7,500.0**	**8,184.7**	**6,399.0**	**-1,786**	**-1,101.0**
Infrastructure	6,399.3		8,184.7	6,399.0	-1,786	
Environmental Research Labs	**na**	**51,000.0**	**85,358.2**	**51,000.0**	**-34,358**	**0.0**
Total, SCIENCE & TECHNOLOGY*	**430,958.2**	**504,500.0**	**578,748.0**	**487,126.6**	**-91,621**	**-17,373.4**
LUST	**769.4**	**650.0**	**681.0**	**769.0**	**88**	**119.0**
Waste Management	589.5		500.0	601.2	101	
New Technologies	12.1		0.0	0.0	0	
Infrastructure	167.8		181.3	167.8	-14	
OIL SPILL RESEARCH	**2,076.9**	**1,500.0**	**1,031.0**	**2,076.9**	**1,046**	**576.9**
Waste Management	**na**		**900.1**	**1,850.0**	**950**	

Proposed Authorization Figures for the EPA Science and Technology Account
[Dollars in Thousands]

Account Title	FY1996 Authorization	Estimated FY1996 App.	FY1997 Request	FY1997 Mark	Mark V FY1997 Request	Mark V FY1996 App.
Infrastructure	na		131.0	226.9	96	

*Excluding Superfund which will be authorized as part of Superfund Reauthorization.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY SCIENTIFIC AND TECHNICAL RESEARCH SERVICES & CONSTRUCTION FISCAL YEAR 1997 PROPOSED AUTHORIZATION

	FY96 Estimate*	FY97 Request	FY97 Proposed
Electronics & electrical engineering		$38,114,000	$38,407,000 [1]
Manufacturing engineering		18,747,000	18,747,000
Chemical science & technology		31,939,000	33,939,000 [2]
Physics		28,048,000	28,048,000
Materials science & engineering		51,026,000	54,589,000 [3]
Building & fire research		13,085,000	13,085,000
Computer science & applied mathematics		43,076,000	43,076,000
Technology assistance		14,950,000	18,950,000 [4]
National Quality Program		2,987,000	2,987,000
Research support activities		28,772,000	28,772,000
STRS Appropriations	**259,000,000***	**270,744,000**	**280,600,000**
Construction of Research Facilities	**60,000,000***	**105,240,000**	**105,240,000**

*As funded in the FY96 Commerce Appropriations bill, which was vetoed by the President

[1] Exceeds the President's request by authorizing unfunded FY96 requested increase to develop and deliver new measurement tools and services to the semiconductor device, equipment, and materials industries, as called for in the National Technology Roadmap for Semiconductors.

[2] Exceeds the President's request by authorizing unfunded FY96 requested increase to develop biotechnology measurement and data tools needed by United States industry to accelerate commercialization of bioproducts through improved product design, process optimization, and quality assurance.

[3] Exceeds the President's request by authorizing unfunded FY96 requested increase to permit work with industry to accelerate the commercialization of advanced materials through projects that emphasize the measurement science/characterization elements of synthesis and processing and the process integration of relevant materials.

[4] Exceeds the President's request by authorizing unfunded FY96 requested increase to provide a new generation of physical standards, measurements, test methods, and reference data needed by emerging instrumentation industries, focusing on metrology. This increase would also provide funds to implement the requirements of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) to make NIST the lead governmental coordinating agency on standards and conformity assessment.

FEDERAL AVIATION ADMINISTRATION RESEARCH, ENGINEERING, AND DEVELOPMENT (RE&D) FY97 PROPOSED AUTHORIZATION

[In millions of dollars]

	FY96 Appropriated	FY97 PB Request	FY97 Proposed Authorization
Sys Dev/Infrastructure	10.000	16.822	10.000
Capacity/ATM technology	37.200	40.570	39.911
Comm/Nav/Surveillance	23.000	20.371	20.371
Weather	6.493	6.411	6.411
Airport Technology	6.000	6.000	6.000
Air Safety Technology	37.978	38.999	37.978
System Security	36.045	36.045	36.045
Human Factors/Aviation Medicine	23.682	23.682	23.682
Environment/Energy	3.800	3.800	3.800
Innovative/Cooperative Research	1.500	3.000	1.500
	185.698	**195.700**	**185.698**

NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM FY 1997 BUDGET REQUEST SUMMARY

[In millions of dollars]

ACCOUNT TITLE	FY 1996 Estimate	FY 1997 Request	FY 1997 Auth.
Federal Emergency Management Agency	19.93	18.825	18.825
United States Geological Survey	46.13	46.13	46.13
National Science Foundation	27.1	28.4	28.4
National Institute of Standards and Technology	1.932	1.932	1.932
TOTAL	95.092	95.287	95.287

The CHAIRMAN. And, the Chair would begin with an opening statement. The Committee has before it today the Omnibus Civilian Science Authorization Act of 1996, a bill providing Fiscal Year 1997 authorizations for the National Science Foundation, NASA, the U.S. Fire Administration, NOAA, the research programs of EPA, the National Institute of Standards and Technology, the research programs of the FAA and the Earthquake Hazards Reduction Program.

This bill, drafted and presented with the subcommittee Chairs, is a sound and responsible approach to the funding of our nation's federal civilian research and development efforts. It authorizes $19.7 billion for Fiscal Year 1997. The President's request for these programs is $20.9 billion.

The difference is largely reflected in reductions to NIST's Industrial Technology Services, NASA's Mission to Planet Earth and some areas of NOAA and EPA.

We are fulfilling our commitment to basic research by providing a $250 million increase in basic research, a 5 percent increase. NSF research grants are up by $66 million over 1996.

NASA's Space Science and Life and Microgravity research are up by $145 million. NOAA Climate and Air Quality Research Coastal Ocean Science, Sea Grant Research and Marine Research are up by $14 million. And, NIST core Scientific and Technical Research is up by $21 million.

NASA's space science account is $310 million over the President's request which, when aggregated with Life and Microgravity Research, achieves the number one recommendation of the Augustine Commission, a 20 percent share of the NASA budget. NIST's core is $10 million above the President's request. And, the President's $170 million in oceanic and atmospheric basic research is matched.

This bill also makes tremendous progress with regard to the budget limitations for Fiscal Year 1997 that were delineated in last year's balanced budget resolution. As Chairman of the Science Committee, I am recommending, and as Vice Chairman of the Budget Committee, I am seeking, a $430 million net adjustment in our overall Fiscal Year 1997 cap in regard to the subject matter of this bill.

That is represented by a Fiscal Year 1997 NASA number that is adjusted upward of $230 million from the $13.265 up to $13.5 billion. NOAA is adjusted up $116 million to $1.8 billion.

NSF is raised $77 million for basic research grants and South Pole environmental restoration, while NIST is raised $37 million in order to build a much needed Advanced Lab for use as soon as pos-

sible. FAA and EPA R&D are maintained at or close to current funding levels.

The U.S. Fire Administration and earthquake programs are authorized at the President's request.

All of this is on top of a $350 million upward adjustment to the 1997 cap that we, as the authorizing committee, already made on the House Floor last year for DOE programs—$170 million for Energy Supply R&D to $2.6 billion, $95 million for Conservation R&D to $230 million and $86 million for Fossil R&D to $221 million.

I am also seeking this adjustment in the 1997 budget resolution. Furthermore, although we do not repeat the DOE authorization in this measure, it is my expectation that the Energy and Environment Subcommittee could take this measure up for authorization in the coming weeks if that is the desire of the Subcommittee Chairman and the membership.

Some members have questioned why we are proceeding immediately to Full Committee rather than going to subcommittee markups. The answer is that we have Floor time in early May, giving us the opportunity to pass an authorization bill in the House before the appropriations subcommittees begin their markups.

We have held authorization hearings in every subcommittee. And, the policy statements in the bill reflect both last year's work and this year's oversight.

There has been a great deal of name-calling in the media over the past couple of months, with Republicans being accused of all sorts of nefarious intentions with regard to science funding. This legislation speaks for itself.

There are at least 70 programs which are funded at higher levels than current funding and 40 programs that are funded above the President's request.

What we have done in the remainder of the bill is make tough choices necessary for this Committee's priorities to be seriously considered. Yes, it would have been easy to pump up every account to accommodate every proposal.

But, as I said last year, I don't believe that our role as authorizers is to act as cheerleaders for all of the programs under our jurisdiction. Cultivating public recognition and support for science is an important role.

And, all of us have a responsibility to get that message out. We are also here to evaluate the effectiveness of these programs and, in conjunction with the budget realities, make choices about funding levels.

I make no apologies for the approach this Committee has taken to science during my tenure as Chairman. Because of our responsible work, this Committee has been able to work closely, credibly and effectively with the Budget and Appropriations Committees on funding levels to achieve Committee priorities and balance the budget.

The tenor of the policy debate has changed within the Congress and the science community, as the focus has shifted from industrial policy to basic research and from status quo subsidies to new knowledge. Quite simply, we have proven to our colleagues and to the science community that this Committee is serious about its responsibilities.

I know that there are honest disagreements about the direction of science policy. I welcome that discussion as it will occur today.

I hope that we can keep the quality of the debate high and focused on the legislation.

[The opening statement of Chairman Walker follows:]

OPENING STATEMENT OF THE HONORABLE ROBERT S. WALKER,

MARK-UP OF OMNIBUS CIVILIAN SCIENCE AUTHORIZATION ACT OF 1996

The Committee has before it today the Omnibus Civilian Science Authorization Act of 1996, a bill providing FY 1997 authorizations for the National Science Foundation, NASA, the U.S. Fire Administration, NOAA, the research programs of EPA, the National Institute of Standards and Technology, the research programs of the Federal Aviation Administration and the earthquake hazards reduction program.

This bill, drafted and presented with the subcommittee chairs, is a sound and responsible approach to the funding of our nation's federal civilian research and development efforts. It authorizes $19.7 billion for FY 1997; the President's request for these programs is $20.9 billion. The difference is largely reflected in reductions to NIST's Industrial Technology Services, NASA's Mission to Planet Earth, some areas of NOAA, and EPA.

We are fulfilling our commitment to basic research by providing a $250 million increase in basic research, a five percent increase. NSF research grants are up $66 million over FY 1996. NASA Space Science and Life and Microgravity research are up $145 million. NOAA Climate and Air Quality Research, Coastal Ocean Science, Sea Grant Research, and Marine Research are up $14 million, and NIST "core" Scientific and Technical Research is up $21 million.

NASA's space science account is $310 million over the President's request, which when aggregated with Life and Microgravity Research, achieves the number one recommendation of the Augustine Commission—a 20 percent share of the NASA budget. NIST's core is $10 million above the President's request. The President's $170 million in oceanic and atmospheric basic research is matched.

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All of this is on top of a $350 million upward adjustment to the 1997 cap that we, as the authorizing committee, already made on the House Floor last year for DOE programs ($170 million for Energy Supply R&D to $2.6 billion; $95 million for Conservation R&D to $230 million; and $86 million for Fossil R&D to $221 million). I am also seeking this adjustment in the FY 1997 budget resolution. Furthermore, although we do not repeat the DOE authorization in this measure, it is my expectation that the Energy and Environment Subcommittee could take up this measure for authorization in the coming weeks, if that is the desire of the Chairman and his membership.

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last year, I don't believe that our role as authorizers is to act as cheerleaders for all of the programs under our jurisdiction. Cultivating public recognition and support for science is an important role, and all of us have a responsibility to get that message out. We are also here to evaluate the effectiveness of these programs, and in conjunction with the budget realities, make choices about funding levels.

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I know that there are honest disagreements about the direction of science policy. I welcome the discussion that will occur today. I hope that we can keep the quality of the debate high and focused on the legislation.

The CHAIRMAN. I now recognize the Ranking Member for any statement that he might wish to make.

Mr. BROWN. Thank you very much, Mr. Chairman. I would like to make a somewhat longer statement than I did on the previous bill.

As the Chairman has noted, the processes of this Committee have changed radically after his tenure. Last year, we started with a process which devoted about 40 or 50 hours to markup in subcommittee and Full Committee before the bill was reported to the Floor. On the Floor, all the various bills for the first time—and I'm not criticizing this at all—were combined into one omnibus bill and taken up on the Floor as one bill and passed on the Floor.

This year, at an even further refinement—and I trust an improvement—we are short-circuiting that 40 to 50 hours of markup. As the Chairman has indicated that there has been no subcommittee markup and that this is a Full Committee markup on all of the bills together, which again differs from last year, as I pointed out.

Presumably, the bill will be reported out as an omnibus bill. There may be hearings that markup later on portions of the bill in the subcommittee. I'm not sure what the Chairman has in mind.

But, this will bring the bill directly to the Floor in the fashion that I've described. Now, I don't know what you can do for an encore to that.

Possibly, we won't have even Full Committee markups on all of the bills next year and we will take it directly to the Floor, as happened in the Committee on Agriculture this year when the Chair of that Committee was unable to get Committee approval of the authorization bill. So, it was removed from the Committee, taken up by the leadership of the Rules Committee and subsequently reported to the Floor.

Now, that may be the epitome of streamlining and efficiency. And, pretty soon, we may be able to completely do away with the Committee and maybe even the Congress if this continues.

But, I point out that this is the trend which we are following. Now, to get on with the specifics of the bill.

I wish to state that, "I am pleased to be here today, however, I am not pleased with the process that got us here." That is a direct quote from Mr. Walker's opening statement at our Committee markup for the National Energy Policy Act four years ago.

He went on to say, "What we have before us for markup is a bill that was purposely drafted without Minority input." Mr. Walker made his comments after my staff had spent almost four months trying to work with the Republican staff in drafting that bill.

We shared drafts of our bill and sought perfecting language and advice on policy direction as we moved towards consideration. We were also working with the Bush Administration in shaping that bill.

If that sort of collaboration provokes a charge of no Minority input, I shudder to think what Mr. Walker, as Ranking Minority Member today, would say about the process we have before us in which no Minority Member saw any version of the bill until 48 hours before markup. I suspect he might say something along the following lines:

What a difference a year makes. Last year, members of this Committee met to markup authorization bills under the pressure of firm caps that had been brought back from the Budget Committee by Chairman Walker.

We were constrained to respect those caps as if they were handed down from on high. Amendments which did not offer off-setting cuts were opposed by the Republican leadership of this Committee as "budget busters." That's a quote.

This was, as I pointed out at the time, all a carefully crafted charade with no basis in Committee rules, House rules or law. There are no authorizing caps associated with the Budget Committee's work.

That was a point that the Chairman disputed on many occasions. But, so long as his members found that fiction convenient cover for their actions, he could treat his tall tale as gospel.

Of course, we watched the Chair's numbers change every time his red phone rang to let him know the appropriators had ignored Budget's advice and gone further in funding our programs than he had. This Committee had so much impact on the appropriators that our numbers almost came to match theirs by the time they had finished telling us what their numbers were going to be so we could alter ours.

Some of you may be interested to know that the final appropriations numbers for FY-1996 were closer to the Democratic alternative numbers we offered in this Committee than to the original numbers in Mr. Walker's bill.

This year's fiction is going to be hard to reconcile with last year's best seller. Last year, members were led to be believe that they couldn't move an authorization at all until the Budget Committee had finished its work and once that work was finished, the numbers were carved in stone.

This year, we are told that if we want to have an impact on the Budget Committee's process, we need to move early. Isn't this standing last year's fiction on its head?

Of course, there is a constant between last year's bill and this year's Omnibus proposal. Members are again told they have to respect the caps in each title of the bill.

What caps? Where have they come from? Who established them?

If, as the Chairman explained last year, the caps came from the Budget Committee, how can we possibly have caps this year before

the Budget Committee has even acted? Perhaps the Chairman's red phone has been ringing again with secret information on what the Budget Committee is going to do.

An area where broad discussion among all the members would seem fruitful and necessary is the authorization for the Department of Energy. The bill before us today does not include DOE authorization numbers or language.

This is interesting, because it is my understanding that the Chair had intended to include a DOE title. And, you know, the Chair isn't the only one with a red phone.

Mine rang on Friday and, lo and behold, I was faxed a copy of the Chair's anticipated numbers for the Department of Energy which included this statement for the broadest possible distribution. Only the Chair can explain why a title he expected to offer on Friday had disappeared by Monday. But, I bet it makes for a great story.

Instead of tackling an authorization for the Department of Energy, we've been told that the DOE Fiscal Year 1997 authorization numbers have already been settled in a little debated or noted amendment Mr. Walker offered on the Floor last year to the 1995 Omnibus Civilian Science Authorization Act. However, those numbers are at the crudest level of detail and there is virtually no policy guidance.

I think that the existing authorization constitutes an uncontrolled spending plan of lump sum authorizations conceding all specifics and project decisions to the appropriators. I believe this is an abdication of our responsibilities as policymakers.

And, the answer to any appropriation porker's dream—"I cannot agree to lump sum authorizations that set no priorities and make no real choices." That's a quotation.

And, those last words were not mine, though I think they are more accurate today than when they were first spoken. Again, they come from Mr. Walker's opening statement of four years ago on the National Energy Policy Act markup.

Imitation is the sincerest form of flattery. So, I hope the Chair will be duly flattered by my weak efforts to imitate the role he played so well as Ranking Minority Member.

And, I yield back the balance of my time.

[The opening statement and attachments of Mr. Brown follow:]

OPENING STATEMENT OF THE HONORABLE GEORGE E. BROWN, JR. ON THE OMNIBUS CIVILIAN SCIENCE AUTHORIZATION ACT OF 1996

Mr. Chairman,

"I am pleased to be here today, however, I am not pleased with the process that got us here." That is a direct quote from Mr. Walker's opening statement at our Committee's markup of the National Energy Policy Act four years ago. He went on to say, "What we have before us for markup is a bill that was purposely drafted without Minority input..."

Mr. Walker made his comments after my staff had spent almost four months trying to work with Republican Committee staff in drafting that bill. We shared drafts of our bill and sought perfecting language and advice on policy direction as we moved towards consideration. We were also working with the Bush Administration in shaping that bill.

If that is what provokes a charge of no Minority input, I shudder to think what Mr. Walker as Minority ranking Member would say about a process in which no Minority Member sees any version of the bill until forty-eight hours before markup. I suspect he might say something along the following lines:

What a difference a year makes. Last year, Members of this Committee met to mark-up authorization bills under the pressure of firm caps that had been brought back from the Budget Committee by Chairman Walker. We were constrained to respect those caps as if they were handed down from on high. Amendments which did not offer off-setting cuts were opposed by the Republican leadership of this Committee as "budget busters."

This was, as I pointed out at the time, all a carefully crafted charade with no basis in Committee rules, House rules or law. There are no authorizing caps associated with the Budget Committee's work. That was a point that the Chairman disputed on many occasions with me, but so long as his Members found that fiction convenient cover for their actions, he could treat his tall tale as gospel.

Of course we watched the Chair's numbers change every time his "red phone" rang to let him know the Appropriators had ignored Budget's numbers and gone further in funding our programs than he had. This Committee had so much impact on the Appropriators that our numbers almost came to match theirs by the time they had finished telling us what their numbers were going to be so we could alter ours. Some of you may be interested to know that the final appropriations numbers for FY1996 were closer to the Democratic alternative numbers we offered in this Committee than to the original numbers in Mr. Walker's bills.

This year's best seller is going to be hard to reconcile with last year's fiction. Last year, Members were led to believe that they couldn't move an authorization at all until the Budget Committee had finished its work and once that work was finished, the numbers were carved in stone. This year, we are told that if we want to have an impact on the Budget Committee's process, we need to move early. Isn't this standing last year's fiction on its head?

Of course there is a constant between last year's bills and this year's Omnibus proposal: Members are again told they have to respect the caps in each title of the bill? What caps? Where have they come from? Who established them? If, as the Chairman explained last year, the caps come from the Budget Committee, how can we possibly have caps this year before the Budget Committee has even acted? Perhaps the Chairman's red phone has been ringing again with secret information on what the Budget Committee is going to do, but if the Chairman already knows what the Budget Committee is going to do, who are we fooling in claiming that we are acting to influence the Budget Committee?

I also want to express my disappointment in a process that continues to exclude Minority Members from discussion and drafting of these bills. Perhaps no Members on the Chairman's side of the aisle feel as if the process by which these bills are drafted and numbers arrived at is arbitrary and capricious. Some accounts get plussed up based on no testimony or record before the Committee. Other accounts are cut or terminated with extreme prejudice, again with no Committee record.

We on the Democratic side feel that this is an undemocratic and irresponsible way to make policy. We would like it if the Chairman would find a way to work with us in those areas where he can, to take advantage of the expertise and interest that lies on our side of the aisle, even as we understand that the demands of ideological purity on particular issues ban compromise or even meaningful dialogue.

An area where broad discussion among all the Members would seem fruitful and necessary is authorizing the Department of Energy accounts. The bill before us today does not include DOE authorization numbers or language. This is interesting because it is my understanding that the Chair had intended to include a DOE title. And you know, the Chair isn't the only one with a red phone. Mine rang on Friday and, low and behold, I was faxed a copy of the Chair's anticipated numbers for DOE which I include with this statement for the broadest possible distribution. Only the Chair can explain why a title he expected to offer on Friday had disappeared by Monday, but I bet it makes for a great story.

Instead of tackling an authorization for the Department of Energy, the Republican Chief of Staff claims that the Chair's attitude is that the DOE FY1997 authorization numbers have already been settled in a little debated or noted amendment Mr. Walker offered on the Floor last year to the 1995 Omnibus Civilian Science Authorization act. However, those numbers are at the crudest level of detail and there is virtually no policy guidance. Further, there were no hearings held before those numbers were developed by the Chair, again, without consultation with any Members on our side.

I think that this constitutes an "uncontrolled spending plan of lump sum authorizations conceding all specifics and project decisions to the appropriators. I believe this is an abdication of our responsibilities as policymakers. And the answer to any appropriation porker's dream....I cannot agree to... lump-sum authorizations that set no priorities and make no real choices."

Those last words were not mine, though I think they are more accurate today than when they were first spoken. Again, they come from Mr. Walker's opening statement of four years ago at the National Energy Policy Act markup. Imitation is the sincerest form of flattery, so I hope the Chair will be duly flattered by my weak efforts to imitate the role he played so well as ranking Minority Member.

Let me close by encouraging Members who care about setting to join me in supporting the Democratic alternative to the Chairman's bill. That alternative is based on the President's request which takes the next step towards responsibly balancing the budget while protecting programs that are vital to our Nation's future. Unlike the Walker bill, it is a true Omnibus Civilian Science act because it provides authorization details for the Department of Energy as well as all the other programs under our jurisdiction and I know many Members on both sides of the aisle care deeply about this issue.

Thank you, Mr. Chairman.

Fiscal Year 1997 Authorization of Department of Energy Civilian Research, Development, Demonstration, and Commercialization Activities
(In Thousands of Dollars)

Account Title	FY 1996 Estimate	FY 1997 Request	FY 1997 Committee Bill	Committee Bill Compared With (+ or -) FY 1996 Estimate	Committee Bill Compared With (+ or -) FY 1997 Request
ENERGY SUPPLY R&D					
Energy Efficiency and Renewable Energy					
Solar and Renewable Resources Technologies					
Solar Energy					
Solar Building Appliances R&D	1,942	5,000	0	-1,942	-5,000
Photovoltaic Energy Systems	61,559	86,994	61,559	0	-25,435
Solar Thermal Energy Systems	24,270	23,750	21,413	-2,857	-2,337
Biofuels Energy Systems	53,671	80,890	31,469	-22,202	-49,421
Wind Energy Systems	31,551	49,650	0	-31,551	-49,650
Renewable Energy Production Incentive Program	662	3,489	0	-662	-3,489
National Renewable Energy Laboratory					
Facilities Maintenance	500	2,200	2,200	1,700	0
Construction: 96E100, FTLB Renovation and Expansion	1,500	2,800	2,800	1,300	0
Total, National Renewable Energy Laboratory	2,000	5,000	5,000	3,000	0
Resource Assessment	1,942	0	0	-1,942	0
Solar and Renewable Energy Deployment	14,671	8,509	0	-14,671	-8,509
Total, Solar Energy	192,268	263,282	119,441	-72,827	-143,841
Geothermal Energy R&D					
Geothermal Electric R&D and Development	28,092	29,118	9,100	-18,992	-20,018
Geothermal Heat Pump Deployment	5,300	6,482	0	-5,300	-6,482
Total, Geothermal Energy R&D	33,392	35,600	9,100	-24,292	-26,500
Hydrogen Research and Development	14,500	11,012	20,000	5,500	8,988
Electric Energy Systems and Storage					
High Temperature Superconductivity R&D	22,585	23,050	23,050		
Energy Storage R&D	2,000	4,000	2,500		
Electric and Magnetic Fields R&D	9,699	8,000	8,000	-1,699	0
Climate Challenge	0	1,000	0	0	-1,000
Total, Electric Energy Systems and Storage	34,284	36,050	33,550	-734	-2,500
Policy and Management	13,975	17,301	9,200	-4,775	-8,101
Total, Solar and Renewable Resources Technologies	288,419	363,245	191,291	-97,128	-171,954
In-house Energy Management	342	5,700	0	-342	-5,700
Subtotal, Solar and Renewable Resources Technologies	288,761	368,945	191,291	-97,470	-177,654
Use of prior year balances	-15,800	0	0	15,800	0
Total, Energy Efficiency and Renewable Energy	272,961	368,945	191,291	-81,670	-177,654
Nuclear Energy					
Nuclear Energy Research and Development					
Light Water Reactor	40,000	40,000	40,000	0	0
Advanced Reactor Research and Development	0	0	0	0	0
Space Reactor Power Systems	0	0	0	0	0
Advanced Radioisotope Power Systems	48,512	40,000	48,512	0	8,512
Facilities	0	0	0	0	0
Nuclear Technology Research and Development	25,000	30,000	30,000	5,000	0
Oak Ridge Landlord	14,400	16,000	16,000	1,600	0

Table 2. Fiscal Year 1997 Authorization of Department of Energy Civilian Research, Development, Demonstration, and Commercialization Activities
(In Thousands of Dollars)

Account Title	FY 1996 Estimate	FY 1997 Request	FY 1997 Committee Bill	Committee Bill Compared With (+ or -) FY 1996 Estimate	Committee Bill Compared With (+ or -) FY 1997 Request
Nuclear Energy Research and Development (Continued)					
Test Reactor Area Landlord					
Facilities Maintenance	2,000	3,000	3,000	1,000	0
Construction: 95-E-201, TRA Fire and Life Safety Improvements, Idaho National Engineering Laboratory	1,900	1,000	1,000	-900	0
Total, Test Reactor Area Landlord	3,900	4,000	4,000	100	0
Advanced Test Reactor Fusion Irradiations	2,303	800	800	-1,503	0
University Nuclear Science and Reactor Support	3,500	6,950	3,500	0	-3,450
Total, Nuclear Energy Research and Development	137,615	137,750	142,812	5,197	5,062
Termination Costs	79,171	79,100	79,100	-71	0
Isotope Support	24,658	12,704	12,704	-11,954	0
Program Direction	15,117	18,500	14,700	-417	-3,800
Subtotal, Nuclear Energy	256,561	248,054	249,316	-7,245	1,262
Use of Prior Year Balances	-4,961	0	0	4,961	0
Total, Nuclear Energy	251,600	248,054	249,316	-2,284	1,262
Environment, Safety and Health					
Office of Environment, Safety and Health (Non-Defense)	84,290	73,160	69,000	-15,290	-4,160
Program Direction	39,315	39,046	32,000	-7,315	-7,046
Subtotal, Environment, Safety and Health	123,605	112,206	101,000	-22,605	-11,206
Use of Prior Year Balances	-4,396	0	0	4,396	0
Total, Environment, Safety and Health	119,209	112,206	101,000	-18,209	-11,206
Energy Research					
Biological and Environmental Research					
Operations and Maintenance	343,806	342,962	307,391	-36,415	-35,571
Construction					
94-E-339, Human Genome Laboratory, Lawrence Berkeley National Laboratory	5,700	0	0	-5,700	0
94-E-338, Structural Biology Center, Argonne National Laboratory	4,295	1,000	1,000	-3,295	0
94-E-337, ALS Structural Biology Support Facilities, Lawrence Berkeley National Laboratory	2,600	0	0	-2,600	0
91-EM-100, Environmental and Molecular Sciences Laboratory, Pacific Northwest National Laboratory	50,000	35,113	35,113	-14,887	0
Subtotal, Construction	62,595	36,113	36,113	-26,482	0
Subtotal, Biological and Environmental Research	406,401	379,075	343,504	-62,897	-35,571
Use of Prior Year Balances	-11,356	0	0	11,356	0
Total, Biological and Environmental Research	395,045	379,075	343,504	-51,541	-35,571
Fusion Energy Sciences	227,394	255,600	200,000	-27,394	-55,600
Basic Energy Sciences					
Operations and Maintenance					
Materials Sciences	337,105	334,560	354,672	17,567	20,112
Chemical Sciences	177,043	173,370	176,975	-68	3,605
Engineering and Geosciences	38,811	41,250	41,250	2,439	0
Energy Biosciences	28,700	28,185	28,185	-515	0
Related Capital Funding	62,931	64,810	64,810	1,879	0
Subtotal, Operations and Maintenance	644,590	642,175	665,892	21,302	23,717

Table 2. Fiscal Year 1997 Authorization of Department of Energy Civilian Research, Development, Demonstration, and Commercialization Activities
(In Thousands of Dollars)

Account Title	FY 1996 Estimate	FY 1997 Request	FY 1997 Committee Bill	Committee Bill Compared With (+ or -) FY 1996 Estimate	Committee Bill Compared With (+ or -) FY 1997 Request
Basic Energy Sciences (Continued)					
Construction					
97-E-105, Accelerator and Reactor Improvements and Modifications, Various Locations	0	2,500	2,500	2,500	0
96-E-300, Combustion Research Facility, Phase II, Sandia National Laboratories	2,000	9,000	9,000	7,000	0
96-E-105, Accelerator and Reactor Improvements and Modifications, Various Locations	4,800	0	0	-4,800	0
89-R-402, 6-7 GeV Synchrotron Radiation Source, Argonne National Laboratory	3,186	0	0	-3,186	0
Subtotal, Construction	9,986	11,500	11,500	1,514	0
Subtotal, Basic Energy Sciences	654,576	653,675	677,392	22,816	23,717
Use of Prior Year Balances	-13,385	0	0	13,385	0
Total, Basic Energy Sciences	641,191	653,675	677,392	36,201	23,717
Computational and Technology Research	144,357	158,143	136,354	-8,003	-21,789
Energy Research Analyses	3,077	2,000	0	-3,077	-2,000
Multiprogram Energy Laboratories (MEL)-Facilities Support					
Operations and Maintenance	6,656	7,625	6,656	0	-969
Construction: MEL-001					
Central Heating Plant Rehabilitation, I, Argonne National Laboratory	2,631	2,500	2,500	-131	0
Electrical Safety Rehabilitation, Pacific Northwest National Laboratory	1,500	1,500	1,500	0	0
Multiprogram Laboratory Rehabilitation, I, Pacific Northwest National Laboratory	2,740	2,960	2,960	220	0
East Canyon Electrical Safety Project, Lawrence Berkeley National Laboratory	100	0	0	-100	0
Electrical System Upgrade, Phase II, Argonne National Laboratory	205	0	0	-205	0
Fuel Storage and Transfer Facility Upgrade, Brookhaven National Laboratory	440	0	0	-440	0
Roofing Improvements, Oak Ridge National Laboratory	2,089	0	0	-2,089	0
Applied Science Center, Phase I, Brookhaven National Laboratory	3,270	0	0	-3,270	0
Fire Safety Improvements, II, Argonne National Laboratory	2,411	224	224	-2,187	0
Fire Safety Improvements, III, Argonne National Laboratory	1,075	1,000	1,000	-75	0
Sanitary System, Mod. II, Brookhaven National Laboratory	1,690	1,032	1,032	-658	0
Loss Prevention Upgrades, Brookhaven National Laboratory	2,480	4,620	4,620	2,140	0
Building Electrical Service Upgrade, I, Argonne National Laboratory	1,200	1,144	1,144	-56	0
Hot Lab Renovation, Bldg. 801, Brookhaven National Laboratory	800	6,280	6,280	5,480	0
Fire and Safety Systems Upgrade, Phase I, Lawrence Berkeley National Laboratory	1,130	0	0	-1,130	0
Hazardous Materials Safeguards, Phase I, Lawrence Berkeley National Laboratory	1,288	0	0	-1,288	0

Table 2. Fiscal Year 1997 Authorization of Department of Energy Civilian Research, Development, Demonstration, and Commercialization Activities
(In Thousands of Dollars)

Account Title	FY 1996 Estimate	FY 1997 Request	FY 1997 Committee Bill	Committee Bill Compared With (+ or -) FY 1996 Estimate	Committee Bill Compared With (+ or -) FY 1997 Request
Multiprogram Energy Laboratories (MEL)-Facilities Support (Continued)					
Sanitary Sewer Restoration, Phase I, Lawrence Berkeley National Laboratory	2,400	0	0	-2,400	0
Subtotal, Construction	27,449	21,260	21,260	-6,189	0
Subtotal, MEL - Facilities Support	34,105	28,885	27,916	-6,189	-969
Use of Prior Year Balances	-4,263	0	0	4,263	0
Total, MEL-Facilities Support	29,842	28,885	27,916	-1,926	-969
University and Science Education Programs	18,400	19,900	0	-18,400	-19,900
Program Direction	43,704	42,154	40,000	-3,704	-2,154
Total, Energy Research	1,503,010	1,539,432	1,425,166	-77,844	-114,266
Environmental Restoration and Waste Management (Non-Defense)					
Environmental Restoration	361,377	358,239	343,411	-17,966	-14,828
Waste Management					
Operations and Maintenance	167,417	192,799	167,417	0	-25,382
Construction:					
97-E-600, ANL-W National Waste Handling Facility, Argonne National Laboratory-West, Idaho	0	360	360	360	0
94-E-602, Bethel Valley Federal Facilities Agreement Upgrades, Oak Ridge National Laboratory	300	1,106	1,106	806	0
92-E-601, Melton Valley LLLW Collection and Transfer System Upgrade, Oak Ridge National Laboratory	339	0	0	-339	0
91-E-600, Rehabilitation of Waste Management Bldg. 306, Argonne National Laboratory	787	2,066	2,066	1,279	0
88-R-812, Hazardous Waste Handling Facility, Lawrence Berkeley National Laboratory	671	0	0	-671	0
88-R-830, Bethel Valley LLLW Collection and Transfer System Upgrade, Oak Ridge National Laboratory	4,000	2,692	2,692	-1,308	0
Subtotal, Construction	6,097	6,224	6,224	127	0
Total, Waste Management	173,514	199,023	173,641	127	-25,382
Nuclear Materials and Facilities Stabilization:					
Operations and Maintenance	74,523	84,782	84,782	10,259	0
Construction:					
93-E-900, Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory	4,048	6,571	6,571	2,523	0
Total, Nuclear Materials and Facilities Stabilization	78,571	91,353	91,353	12,782	0
Site Operations	4,340	2,799	2,799	-1,541	0
Subtotal, Environmental Restoration and Waste Management (Non-Defense)	617,802	651,414	611,204	-6,598	-40,210
Use of Prior Year Balances	-19,911	0	0	19,911	0
Total, Environmental Restoration and Waste Management (Non-Defense)	597,891	651,414	611,204	13,313	-40,210
Other Energy Programs					
Civilian Waste Research and Development	0	0	0	0	0
Technical Information Management Program	11,976	12,000	12,000	24	0
Information Management Investment Program	0	14,900	0	0	-14,900
Total, Other Energy Programs	11,976	26,900	12,000	24	-14,900

Table 2. Fiscal Year 1997 Authorization of Department of Energy Civilian Research, Development, Demonstration, and Commercialization Activities
(In Thousands of Dollars)

Account Title	FY 1996 Estimate	FY 1997 Request	FY 1997 Committee Bill	Compared With (+ or -) FY 1996 Estimate	Compared With (+ or -) FY 1997 Request
Subtotal, ENERGY SUPPLY R&D	*2,756,647*	*2,946,951*	*2,589,977*	-166,670	-356,974
Use of Prior Year Balances and Other Adjustments	-180	-48,177	-48,177	-47,997	0
TOTAL, ENERGY SUPPLY R&D	*2,756,467*	*2,898,774*	*2,541,800*	*-214,667*	*-356,974*
GENERAL SCIENCE AND RESEARCH					
High Energy Physics					
Physics Research	141,000	141,290	141,290	290	0
Facilities Operations:					
Operations	266,572	271,210	271,210	4,638	0
Construction:					
97-G-303, SLAC Master Substation Upgrade, Stanford Linear Accelerator Center	0	3,000	3,000	3,000	0
94-G-304, B-Factory, Stanford Linear Accelerator Center	52,000	45,000	45,000	-7,000	0
92-G-302, Fermilab Main Injector, Fermi National Accelerator Laboratory	52,000	52,000	52,000	0	0
Subtotal, Construction	104,000	100,000	100,000	-4,000	0
Subtotal, Facilities Operations	370,572	371,210	371,210	638	0
High Energy Technology	68,923	74,880	74,880	5,957	0
Related Capital Equipment	86,505	91,745	91,745	5,240	0
Total, High Energy Physics	667,000	679,125	679,125	12,125	0
Nuclear Physics					
Operations	204,575	217,725	217,725	13,150	0
Construction:					
96-G-302, Accelerator Improvements and Modifications, Various Locations	2,575	0	0	-2,575	0
91-G-300, Relativistic Heavy Ion Collider, Brookhaven National Laboratory	65,000	65,000	65,000	0	0
Subtotal, Construction	67,575	65,000	65,000	-2,575	0
Related Capital Equipment	32,350	35,700	35,700	3,350	0
Total, Nuclear Physics	304,500	318,425	318,425	13,925	0
Program Direction	10,650	11,600	10,650	0	-950
TOTAL, GENERAL SCIENCE AND RESEARCH	*982,150*	*1,009,150*	*1,008,200*	*26,050*	*-950*
TOTAL, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS	*3,738,617*	*3,907,924*	*3,550,000*	*-188,617*	*-357,924*
FOSSIL ENERGY R&D					
Coal					
Advanced Clean Fuels Research					
Coal Preparation	4,666	5,099	2,250	-2,416	-2,849
Direct Liquefaction	5,580	5,857	2,827	-2,753	-3,030
Indirect Liquefaction	5,836	4,252	2,145	-3,691	-2,107
Advanced Research and Environmental Technology	3,546	746	746	-2,800	0
Subtotal, Advanced Clean Fuels Research	19,628	15,954	7,968	-11,660	-7,986
Advanced Clean/Efficient Power Systems					
Advanced Pulverized Coal-Fired Powerplant	10,600	5,500	0	-10,600	-5,500
Indirect Fired Cycle	11,900	11,005	1,325	-10,575	-9,680
High Efficiency-Integrated Gasification Combined Cycle	22,000	22,500	8,644	-13,356	-13,856
High Efficiency-Pressurized Fluidized Bed	19,500	18,000	2,950	-16,550	-15,050

Table 2. Fiscal Year 1997 Authorization of Department of Energy Civilian Research, Development, Demonstration, and Commercialization Activities
(In Thousands of Dollars)

Account Title	FY 1996 Estimate	FY 1997 Request	FY 1997 Committee Bill	Committee Bill Compared With (+ or -) FY 1996 Estimate	Committee Bill Compared With (+ or -) FY 1997 Request
Coal (Continued)					
Advanced Clean/Efficient Power Systems (Continued)					
Advanced Research and Environmental Technology	14,284	9,802	9,802	-4,482	0
Kalina Cycle	2,000	0	0	-2,000	0
Subtotal, Advanced Clean/Efficient Power Systems	80,284	66,807	22,721	-57,563	-44,086
Advanced Research and Technology Development	21,353	19,868	21,975	622	2,107
Total, Coal	121,265	102,629	52,664	-68,601	-49,965
Oil Technology					
Exploration and Production Supporting Research	33,483	34,023	33,377	-106	-646
Recovery Field Demonstrations	11,075	6,096	5,200	-5,875	-896
Exploration and Production Experimental Research	5,456	6,456	6,456	1,000	0
Processing Research and Downstream Operations	5,700	5,962	5,962	262	0
Total, Oil Technology	55,714	52,537	50,995	-4,719	-1,542
Gas					
Natural Gas Research					
Exploration and Production	14,162	15,000	13,875	-287	-1,125
Delivery and Storage	1,071	1,000	1,000	-71	0
Advanced Turbine Systems	36,770	31,600	10,000	-26,770	-21,600
Utilization	4,774	4,841	4,473	-301	-368
Environmental Research/Regulatory Impact Analysis	2,945	4,650	4,083	1,138	-567
Subtotal, Natural Gas Research	59,722	57,091	33,431	-26,291	-23,660
Fuel Cells					
Advanced Research	1,317	1,218	1,218	-99	0
Molten Carbonate Systems	38,067	32,899	16,790	-21,277	-16,109
Advanced Concepts	13,080	12,500	0	-13,080	-12,500
Subtotal, Fuel Cells	52,464	46,617	18,008	-34,456	-28,609
Total, Gas	112,186	103,708	51,439	-60,747	-52,269
Cooperative R&D	6,295	4,000	6,295	0	2,295
Fossil Energy Environmental Restoration	14,919	15,027	15,027	108	0
Fuels Program	2,687	2,188	0	-2,687	-2,188
Program Direction and Management Support					
Headquarters Program Direction	15,649	14,901			
Energy Technology Center Program Direction	55,276	45,214			
Total, Program Direction and Management Support	70,925	60,115	41,226	-29,699	-18,889
Plant and Capital Equipment					
Capital Equipment	1,701	1,000	1,000	-701	0
General Plant Projects	2,304	2,304	2,304	0	0
Total, Plant and Capital Equipment	4,005	3,304	3,304	-701	0
Mining Research and Development					
Materials	5,000	5,000	0	-5,000	-5,000
Health & Safety	35,000	0	0	-35,000	0
Total, Mining Research and Development	40,000	5,000	0	-40,000	-5,000
Subtotal, FOSSIL ENERGY R&D	*427,996*	*348,508*	*220,950*	-207,046	-127,558
Use of Prior Year Balances	-6,499	0	0	6,499	0
Total, FOSSIL ENERGY R&D	*421,497*	*348,508*	*220,950*	-200,547	-127,558

Table 2. Fiscal Year 1997 Authorization of Department of Energy Civilian Research, Development, Demonstration, and Commercialization Activities
(In Thousands of Dollars)

Account Title	FY 1996 Estimate	FY 1997 Request	FY 1997 Committee Bill	Committee Bill Compared With (+ or -) FY 1996 Estimate	Committee Bill Compared With (+ or -) FY 1997 Request
ENERGY CONSERVATION R&D					
Buildings Sector					
Building Systems Design	21,837	36,751	11,656	-10,181	-25,095
Building Equipment and Materials	26,230	41,183	23,600	-2,630	-17,583
Federal Energy Management Program	18,523	31,900	18,523	0	-13,377
Management and Planning	13,724	21,787	0	-13,724	-21,787
Total, Buildings Sector	80,314	131,621	53,779	-26,535	-77,842
Industry Sector					
Industries of the Future (Specific)					
Forest and Paper Products Vision	11,278	13,140			
Steel Vision	6,618	10,060			
Aluminum Vision	1,414	8,587			
Metal Casting Vision	1,945	5,500			
Glass Vision	1,396	5,182			
Chemicals Vision	12,993	13,140			
Petroleum Refining Vision	6,550	6,839			
Textiles Vision	0	12,000			
Subtotal, Industries of the Future (Specific)	42,194	74,448	36,884	-5,310	-37,564
Industries of the Future (Crosscutting)					
Cogeneration	21,598	24,650			
Advanced Materials and Continuous Fiber Ceramic Composites	17,577	14,700			
Cogeneration	68	0			
Subtotal, Industries of the Future (Cross-Cutting)	39,243	39,350	15,955	-23,288	-23,395
Municipal Solid Waste	195	0	0	-195	0
Technology Access	26,873	37,836	0	-26,873	-37,836
Management and Planning	7,150	7,800	0	-7,150	-7,800
Total, Industry Sector	115,655	159,434	52,839	-62,816	-106,595
Transportation Sector					
Alternative Fueled Vehicles	29,003	25,303	0	-29,003	-25,303
Electric Drive Vehicle Drive Technologies	94,043	130,370	61,358	-32,685	-69,012
Transportation Materials Technologies	34,720	38,860	35,570	850	-3,290
Combustion Engine R&D	10,970	17,575	12,760	1,790	-4,815
Implementation and Program Management	7,832	9,200	0	-7,832	-9,200
Total, Transportation Sector	176,568	221,308	109,688	-66,880	-111,620
Policy and Management - EC	29,641	28,350	13,814	-15,827	-14,536
Utility Sector - Integrated Resource Planning	0	0	0	0	0
TOTAL, ENERGY CONSERVATION R&D	*402,178*	*540,713*	*250,120*	*-172,058*	*-310,593*
TOTAL, INTERIOR AND RELATED AGENCIES APPROPRIATIONS	*823,675*	*889,221*	*451,070*	*-372,605*	*-438,151*
TOTAL, CLEAN COAL TECHNOLOGY	*150,000*	*0*	*0*	*-150,000*	*-150,000*
TOTAL, DEPARTMENT OF ENERGY	*4,712,392*	*4,797,145*	*4,001,070*	*-711,322*	*-796,075*

The CHAIRMAN. Well, the Chair is flattered.

[Laughter.]

The CHAIRMAN. And, the Chair is just absolutely stunned that the Minority has kept all of those speeches of mine for so long.

[Laughter.]

The CHAIRMAN. I had no idea that I was such a historic figure who has all of these great statements hanging around for use to read back.

Mr. VOLKMER. Would the gentleman yield?

The CHAIRMAN. It's a wonderful piece of history that we have.

Mr. VOLKMER. Would the gentleman yield? Would the gentleman yield?

The CHAIRMAN. Sure, I will be happy to yield to the gentleman.

Mr. VOLKMER. There is no question in my mind that the process that has taken place in the last two years in this Committee under your leadership will go down in history.

The CHAIRMAN. Well, I thank the gentleman. And, the Chair tends to agree with him.

But, I hope that the Reporter will note that coming from the gentleman from Missouri.

Now, I think what we need to do is get unanimous consent——

Mr. HALL. Would the gentleman yield?

The CHAIRMAN. Yes, sure, I would be happy to yield to the gentleman.

Mr. HALL. I think the gentleman would be surprised what good background your speeches and other of our speeches make for dart boards.

[Laughter.]

Mr. HALL. And, we keep all of them.

The CHAIRMAN. I thank the gentleman. Are there any further opening statements?

Mr. VOLKMER. Yes, I would like to, if I may, Mr. Chairman.

The CHAIRMAN. Sure. Why not?

[Laughter.]

Mr. VOLKMER. Well, I think it's, you know, interesting, very interesting, to me, to follow the processes that have been followed in the last year and a half in regard to environmental concerns of many of the Members of the Congress. Yesterday, we had on the Floor two bills having to do with environmental concerns.

And, I heard every member from your side that spoke speak in support of those two bills. One is the Ocean Coastal Management Program and the other is the Cooperative Fisheries Management Act.

Everybody stood up and said how great these programs were and how much they meant for the environment, how much they meant for the coast of California and the Florida coast and up and down the coast of both of our oceans. And, yet, today, we have before us right here in this bill large reductions in the funds in NOAA in order to implement those programs.

So, to me, I just can't figure you people out. On one side, you say you want these things. And, the other side says, no, we are going to cut the money out so you can't implement them.

You will find that there are severe cuts in the NOAA budget for both of these programs. So, how do the states get their money when they want to request a grant under the legislation that was passed yesterday when there is nobody in NOAA in order to handle them?

I just don't understand your processes that you go through. I would think that you would want to make sure that there are people there in order to implement the programs that you are so fond of.

But, it appears to me that you are going to say, no, we are for all these environmental concerns, and then turn around and cut the money to provide for the program implementation.

And, then I find in this bill in regard to environmental concerns the large cuts in programs that are necessary for us to determine

what is actually happening to our climate and to our environment. You have a 92 percent cut in EPA's Global Climate Change Research program. You have a 27 percent cut below the Administration's request, anyway, to the Mission to Plant Earth program.

I just don't understand whether you are really for clean air, clean water, environmental concerns or you are not. And, to be honest with you, I come down on the side that you really are not in favor of those things, that you really are—in your legislative process in the last year and continuing this year, you say one thing but your actions in the Congress tell me otherwise.

I would appreciate it, Mr. Chairman, if you would see fit to at least restore sufficient funds in order for NOAA to be able to implement the Ocean and Coastal Management and the Cooperative Fisheries and Management Act.

I yield back the balance of my time.

The CHAIRMAN. Well, I thank the gentleman. Setting priorities really is a tough process.

I recognize the gentleman from Tennessee, Mr. Wamp.

Mr. WAMP. Thank you, Mr. Chairman. In light of the fact that this is Earth Week and there are so many people in this room today and we will be here for a lengthy period of time, I would ask unanimous consent that all persons in this room be refrained from smoking in this room for the entire time we have this Committee hearing today, please.

Mr. WELDON. Mr. Chairman, I would like to second that request and just state, as a physician who has studied the scientific literature on the adverse effects of secondhand smoke, I would encourage all of our colleagues to support this unanimous consent request, especially in light of the environmental issues associated with this for this group of people here in this room.

The CHAIRMAN. Well, has the gentleman made a unanimous consent request?

Mr. WAMP. Yes.

The CHAIRMAN. Is there objection?

Mr. VOLKMER. Reserving the right to object.

[Laughter.]

Mr. BROWN. Would the gentleman yield?

Mr. VOLKMER. Is this another environmental speech?

[Laughter.]

Mr. VOLKMER. Or, are we going to just contemplate this little unanimous consent request for a little while?

The CHAIRMAN. Well, I——

Mr. VOLKMER. I reserve the right to object. I would like to again hear the request of the gentleman from Tennessee.

The CHAIRMAN. He requested that everybody not smoke during the remainder of the hearing.

Mr. VOLKMER. And, that's just merely a simple request.

The CHAIRMAN. Well, I guess.

Mr. WAMP. A unanimous consent request that everyone refrain from smoking until this Committee markup is complete.

Mr. VOLKMER. Well, gentlemen, I may or may not abide by your request. I will just let you know that.

I yield to the gentleman from California.

Mr. BROWN. If the Committee were to act on this as a motion, the question I have of the author is would this constitute the Republican environmental program on which he would——

[Laughter.]

Mr. BROWN [continuing]. —run for election in 1996 or is this just the first stage?

[Laughter.]

The CHAIRMAN. I would simply suggest to the gentleman that at least it would be doing something real rather than simply throwing money at things.

So, is there objection?

Mr. DOGGETT. Reserving the right to object.

The CHAIRMAN. Oh, the gentleman from Texas wants to reserve the right to object to this motion.

Mr. DOGGETT. Yes. This is important to any tobacco legislation.

Has it been cleared with the Chairman of the Commerce Committee, Mr. Bliley?

[Laughter.]

The CHAIRMAN. Mr. Bliley is not a member of this Committee. Does the gentleman object?

Mr. DOGGETT. Oh, certainly. It may be the only anti-tobacco legislation we get through this year.

The CHAIRMAN. Hearing no objection, the Chair will honor the gentleman's request.

The gentleman from Texas is recognized.

Mr. HALL. Mr. Chairman, thank you. Since we have a long day ahead of us, I will try to be as brief as possible.

Mr. Brown has already indicated somewhat his interest in the overall bill. And, I will focus my remarks on the NASA authorization.

Mr. Volkmer had problems with the process. And, sometimes I think we have more problems with the process than sometimes we do with the content.

And, I will address that further, because I have to confess that there are a number of things troubling me about this bill. First, as the Chairman knows, I would have preferred that the NASA authorization be marked up by the Space Subcommittee before coming to the Full Committee.

The Chairman has indicated that it was not possible to do that. But, I think a review of the proposed legislation by the subcommittee of jurisdiction is always beneficial. And, it would have been beneficial in this situation.

Second, I am troubled by a number of the funding cuts included in this bill. I don't normally object to funding cuts or any type of cut.

I almost never saw a cut that I didn't like. But, for example, this bill would cut almost 20 percent from NASA's Advanced Subsonic Aeronautics Research Program.

And, for those of you who don't already know, the Advanced Subsonic Program is an R&D initiative that would lead to quieter, more efficient and fuel efficient aircraft. It would address aging aircraft safety, which is of some concern to us today.

It will help provide a safer air traffic management system. And, the list goes on and on.

I think it's important to remember that the R&D conducted under this program does more than just advance knowledge. It helps U.S. aerospace maintain its competitive advantage in the world, something that is very important to us, creating jobs for American workers.

As another example, the bill cuts the Mission to Planet Earth by almost $375 million. And, while my highest priority is not the Mission to Plant Earth, as the Chairman well knows, it is a priority of others on this Committee.

Ms. Harman has done a super job of setting forth the best aspects of it. And, we all have different priorities.

And, I think we all have to have some give and take.

But, I recognize that there are other strong supporters of Mission to Plant Earth.

Cuts of the magnitude proposed in this bill were rejected by the Appropriations Conference and by our counterparts in the Senate last year. I'm afraid that insisting on such large cuts probably would ensure that this bill never becomes law.

Finally, Mr. Chairman, and most importantly, I'm troubled by the message that the NASA authorization sends to the rest of the House of Representatives, namely, that it's okay to cut NASA's request by more than $300 million in Fiscal Year 1997. It's just not okay to do that.

I believe it's a bad message. And, I think it's a bad policy.

Over the past several years, the Administration and Congress challenged NASA to cut its cost and streamline its programs. NASA stepped up to that challenge.

And, I believe that the NASA Administrator and all the fine NASA employees should be congratulated and not forced to swallow even more cuts before they have had a chance to fully absorb the existing cuts. I think it sets back—I don't believe there has been another administrative entity since I've been in Congress that has stepped forward and accepted the cuts that the Congress has asked them to take and the President has asked them to take, this Committee has asked them to take.

They've stepped forth and done it. We didn't have to do it with a club. They did it with a surgeon's knife.

They have made those cuts.

It seems to me that NASA needs some budgetary stability. NASA has been cut enough.

It is time to hold the line on NASA's budget. Mr. Chairman, I thank you.

[The opening statement of Mr. Hall follows:]

OPENING STATEMENT OF HON. RALPH M. HALL

Good morning. Since we have a long day ahead of us, I will be brief. Mr. Brown has already spoken about the overall bill, so I will focus my remarks on the NASA authorization.

I have to confess that a number of things trouble me about this bill. First, as the Chairman knows, I would have preferred that the NASA authorization be marked up by the Space Subcommittee before coming before the Full Committee. The Chairman has indicated that it was not possible to do so, but I think that a review of the proposed legislation by the subcommittee of jurisdiction would have been very beneficial.

Second, I'm troubled by a number of the funding cuts included in this bill. For example, the bill would cut almost 20% from NASA's advanced subsonics aero-

nautics research program. For those of you who don't already know, the advanced subsonics program is an R&D initiative that will lead to quieter, more fuel-efficient aircraft, will address aging aircraft safety concerns, will help provide a safer air traffic management system—the list goes on and on. It's important to remember that the R&D conducted under this program does more than just advance knowledge, it helps U.S. aerospace maintain its competitive advantage in the world, creating jobs for American workers.

As another example, the bill cuts the Mission to Planet Earth by almost $375 million. While my highest priority is the Space Station program and the biomedical research that it will make possible, I recognize that others are strong supporters of Mission to Planet Earth. Cuts of the magnitude proposed in this bill were rejected by the Appropriations conference and by our counterparts in the Senate last year. I'm afraid that insisting on such large cuts may only ensure that this bill never becomes law.

Finally, and most importantly, I'm troubled by the message that this NASA authorization sends to the rest of the House of Representatives—namely, that it's okay to cut NASA's request by more than $300 million in Fiscal Year 1997. I believe that is a bad message, and a bad policy. Over the past several years, the Administration and Congress challenged NASA to cut its costs and streamline its programs. NASA stepped up to that challenge, and I believe that the NASA Administrator and all of the fine NASA employees should be congratulated, not forced to swallow even more cuts before they have had a chance to fully absorb the existing cuts.

NASA needs some budgetary stability. NASA has been cut enough—it is time to hold the line on NASA's budget.

Thank you.

Mr. VOLKMER. Would the gentleman yield?

Mr. SENSENBRENNER. Would the gentleman yield?

Mr. VOLKMER. Would the gentleman yield?

Mr. HALL. I do yield, sir.

Mr. VOLKMER. I would just like to comment. You made one statement about this bill, that because of the extreme nature of the cuts, et cetera, in NASA and other parts that it would, in all probability, not become law.

Well, it's very apparent to me that the bill, the extreme radical bill, that came out of this Committee last year, Senator Dole took it and put it in File 13. I anticipate that probably the same thing will happen, wouldn't you agree, to this bill?

Mr. HALL. I hope not, but it seems headed in that direction. Thank you.

I yield back my time.

Mr. SENSENBRENNER. Mr. Chairman.

The CHAIRMAN. The gentleman from Wisconsin.

Mr. SENSENBRENNER. Mr. Chairman, we are hearing a lot of squealing from the animals on the right of the Chairman about the timing of this piece of legislation. And, I think it's important that we put all of this in proper perspective.

First of all, if we want to have an impact before the appropriators meet, we are going to have to work on this legislation now, because the appropriations will start coming up at the end of May, so that they aren't dragged out and we end up having the fiscal year expire without appropriation bills being passed and sent up to the White House. And, if we are to eliminate the mistakes of last year, we've got to get working on the appropriations and the authorizations earlier this year.

Secondly, the reason we are six weeks behind schedule, folks, is the fact that your President did not submit his budget until March 18th. That was due on February 6th.

And, as far as the Space and Aeronautics Subcommittee is concerned, we were specifically asked by Administrator Goldin not to

have the NASA posture hearing where he could testify to the Administration's budget until after the Administration budget was submitted. And, we did so promptly when that happened.

Then, we took two weeks off for Easter, as we usually do. Last week, we had a marathon hearing where there were a lot of witnesses that came and testified, both from public and private sectors. And, we are here this week.

Now, you know, if we want to be a player in the processes of setting the appropriations, not just for NASA but for the other agencies, we had better get a bill out on the Floor and get members on record on some of these issues before the appropriations bills come up. And, this is the only time to do it.

Now, with respect to the whining and crying that I hear relative to the NASA budget, had the members on the other side of the aisle been listening at the posture hearing, there have been some pretty disturbing changes that have been made in the OMB on the NASA budget. Two years ago, on a bipartisan basis, we all decided that the science programs were a part of NASA's core budget.

I support that. Most Democrats support that as well.

What happened this year is that Mission to Planet Earth replaced science as a part of NASA's core budget. And, given the further cuts that had been ordered by OMB in the outyears and specifically in Fiscal 1998 and Fiscal 1999, unless we make some changes there is not going to be a science program in NASA.

And, that would be a tremendous step backward, in my opinion. And, I am certain that there is support on that on a bipartisan basis.

Now, we are living within a budget cap. And, an authorization bill, if it's to mean anything, can't be a wish list for everybody to put their programs in.

This bill pluses up science. But, it's at the expense of Mission to Planet Earth.

And, in fact, what happens is what we do, is we reverse the priorities of OMB and go back to what this Committee supported strongly and bipartisanly as little as two years ago.

The CHAIRMAN. If the gentleman would yield?

Mr. SENSENBRENNER. I yield.

The CHAIRMAN. The chart out there indicates exactly what the gentleman is saying. What is being done by the Administration in their budget is it has—if you see on the chart there, Space Science got a little over $2 billion in the current 1996 Fiscal Year. Under the Clinton request, it goes down to $1.8 billion, $1.85 billion; whereas, in our particular presentation, we take it up over this year's spending.

And, so there—you know, there really are real tradeoffs here. And, I know that people don't like to do the business of tradeoffs.

But, the fact is that if you are going to maintain our commitment to what the Augustine Commission said was the priority in science, this is the direction in which we have to go.

Mr. SENSENBRENNER. Well, reclaiming my time. Folks, you can't have it both ways.

In 1993, President Clinton—that's President Clinton imposed a discretionary spending cap. So, that means that anything from recommendation that is plused up has got to be offset.

We did that on our side of the aisle. And, we hope that you will join us in not having it both ways and becoming a player in this process.

And, I yield back the balance of my time.

Mr. HALL. Would the gentleman yield? Would the gentleman yield?

Mr. SENSENBRENNER. I would be happy to yield to the gentleman from Texas.

Mr. HALL. I think—I guess I apologize if I sounded like a whiner or an animal. I did have some problems with the process.

And, I would remind the gentleman that, I think, two years ago we had had ample time to have hearings. We did have hearings in the subcommittee. We passed it on out well before this date.

We've had time this time. And, once again, I don't blame the Chairman of the Subcommittee nor the Chairman of the big Committee.

I blame the Congress, because we voted on the second day of February this year to leave and stay home for almost a month. If we had had six more votes, we would have stayed here and worked.

Mr. SENSENBRENNER. Well, reclaiming my time. There was in the budget——

Mr. HALL. How many of them voted to go home? If we had stayed here, we could have had it out.

Mr. SENSENBRENNER. Reclaiming my time, there wasn't a budget that was submitted by the White House. And, Mr. Goldin said very clearly to me that he didn't want to testify until the budget was in.

I accommodated that request.

Mr. HALL. I've known of times when you didn't listen to Mr. Goldin.

The CHAIRMAN. The gentleman from Indiana.

Mr. ROEMER. Thank you, Mr. Chairman. I don't know what squealing animal I am going to imitate here.

But, I would like to talk not so much about tough choices we have to make. I am not afraid of making tough choices.

And, I am certainly not afraid of voting to cut programs. But, what I want to talk about just briefly here is the process.

Now, on this Committee, on this Science Committee, I believe we have a very rich and copious history of bipartisanship, of subcommittee participation in helping to make the final product in exhaustive hearings looking at science and analyzing the science and the impact of that science on what kinds of policy we are going to recommend to the Budget Committee and to the Appropriations Committee and what kind of mark this very distinguished and bipartisan Committee is going to have on the future of science, whether that's on NASA or DOE or the other programs under our jurisdiction.

Mr. Chairman, I have to complain though about the process this time. I have a very good relationship as a Ranking Member with my Subcommittee Chairman, Mr. Rohrabacher from California.

I respect Mr. Rohrabacher from California as the new Chairman. However, we don't agree on everything.

But, I certainly would have hoped that we would have had the opportunity to mark up the DOE portion of this bill to include our

recommendations to you, as the Full Committee Chairman, and to see what the Full Committee wanted to do with that in a bipartisan way. Instead, we take this bill to the Full Committee.

One of the most important parts on DOE is missing. We don't know when this is going to be considered.

We don't know what kind of impact this authorizing committee is going to have on the Appropriations Committee. And, our voice is silent.

Finally, Mr. Chairman, let me just say. I came here to Congress to get involved in many of the details as a subcommittee Ranking Member, as a participant in the Full Committee. And, that opportunity is being taken away from us in this process.

We are supposed to oversee that taxpayers' money. How do we do that when we bring one omnibus bill to the Full Committee and we have five minute statements to make on the several billions of dollars that we are going to consider?

Mr. SENSENBRENNER. Will the gentleman yield?

Mr. ROEMER. I will when I finally conclude. Mr. Chairman, I wish you the best in your life after Congress.

Many people in this body that come back after the next set of elections are going to be making a determination on whether this Science Committee should exist in the future. And, I certainly would think that if this Committee does not have an impact on the authorizing process and we don't work through the subcommittees and through the Full Committee and we don't include DOE and other things in the final recommendations that some people might conclude that this Committee is not relevant and, therefore, should be on the chopping blocks in the future.

I would very much hope that that doesn't take place.

Mr. SENSENBRENNER. Would the gentleman yield?

Mr. ROEMER. I would be happy to yield to the gentleman from Wisconsin.

Mr. SENSENBRENNER. Well, I thank the gentleman from Indiana for yielding. And, let me say that as far as DOE was concerned, last year was the first time in 10 years that we actually reported out a DOE bill for the House's consideration. For 10 previous years, nothing happened in this Committee.

And, then relative to going to Full Committee——

Mr. ROEMER. Well, we sure have done a full turnaround from one year, then. We were relevant a year ago and now we don't even deal with the legislation.

Mr. SENSENBRENNER. But, also I've been looking back in the archives of little gems that have come from the leaders of our Committee.

June 9th, 1993, 103rd Congress. NASA Authorization, H.R. 2200, went straight to the Full Committee. No subcommittee markup at all.

"Honorable George Brown, Mr. Chairman. Today the Committee meets to mark up H.R. 2200, the NASA Authorization Bill for Fiscal 1994 and 1995. As the members know, we are making every effort this year to keep our place in the budget process despite the remaining uncertainty from certain parts of the President's budget."

Now, I think Mr. Brown wanted to beat the Appropriations Committee then. So, we had input.

We didn't conduct a filibuster complaining about it. We marked a bill up and sent it to the Floor.

Mr. ROEMER. Well, I——

Mr. VOLKMER. Would the gentleman yield?

Mr. HALL. Would the gentleman yield just a moment?

Mr. ROEMER. I would be happy to yield to the gentleman from Missouri and the gentleman from Texas.

Mr. HALL. I think if the gentleman from Wisconsin would check back, he would remember that we had a subcommittee meeting. It was unanimous to write that letter. We had no such meeting this time.

Once again, I don't agree with the process. But, you are in charge.

And, let's get on with our business.

Mr. VOLKMER. Would the gentleman yield?

Mr. ROEMER. I would be happy to yield.

The CHAIRMAN. The time of the gentleman has expired. The Chair would simply say to the gentleman that he found his presentation interesting.

The Chair stated earlier—maybe the gentleman wasn't here—that the DOE bill is going to go to your subcommittee. We expect your subcommittee to mark it up. We expect you to have some impact.

For the first time in 10 years, this Committee actually did something on DOE. And, we actually have an authorization in place for 1997.

Now, we think that that gives us some time within the process for your subcommittee to actually do its work. On some of the rest of these, we don't have an authorization in place.

And, so, therefore, we are going—we are doing the process. I am a little confused by the gentleman.

He says that he doesn't like the process. The process, in his case, is taking the bill to his subcommittee.

Now, you know, in some cases we are complaining because we are bringing the policy to the Full Committee in order to meet the time. And, then we are hearing the process described as unreasonable, because the gentleman is actually going to mark it up in his subcommittee.

It seems to me that——

Mr. ROEMER. Mr. Chairman, do I have time——

The CHAIRMAN [continuing]. —what we are seeing here is a filibuster. I also want to reply to the gentleman that I know of no proposal by anybody to eliminate this Committee.

I am on the Task Force that deals with that. I know of no proposal.

The only people I've heard talking about eliminating this Committee in recent weeks has been the Minority. And, it seems to me that it begins to come to the point that if you are not in charge, you would just as soon see the Committee go away. That's a little disappointing.

The gentleman from California.

Mr. ROHRABACHER. I am very happy, Mr. Chairman, that our subcommittee will get a chance to work its will on the DOE part of the budget anyway. And, I know all of us would like to have had more time.

And, to my colleagues on the other side of the aisle, I'm sure they realize that because the President's budget was late in coming, we've had to make some adjustments. And, it wasn't all on willful acts on the part of those of us in the Majority that we've had to set down to this process. It was—you know, it was basically something that was thrust upon us, because we had to work with the timing that we had.

I would like to just say that my friend, Mr. Roemer, has been one who has been willing to vote for cuts and has stepped up to the plate and not just criticized those of us in the Majority for cutting various programs, but he has also been willing to actually say, "Look, we shouldn't cut this, but we should cut something else."

In other words, he has been one of the people who have been complaining, yes, but has also offered constructive suggestions on the other side. And, I really respect his participation in my subcommittee.

Mr. BROWN. Would the gentleman yield?

Mr. ROHRABACHER. For one moment, yes, sir. But, I have to finish my own. But, go right ahead, yes, sir.

Mr. BROWN. No, finish your statement.

Mr. ROHRABACHER. Okay. I would just like to say that earlier on, we all remember the debate on whether we should have a balanced budget amendment. And, time and time again, people came to the Floor saying, "We don't need a balanced budget amendment. All we need to do is be responsible and we can balance the budget and we can watch after these kids."

We have got a lot of kids in our audience today. There is a young man sitting down right there in the Floor.

And, what we are talking about is not spending all the money right now so that when he gets to be our age and maybe he's up here in one of these seats, we won't have spent all of that money for his generation and that we were trying to put down as our priority a balanced budget and we tried to pass an amendment, but your side of the aisle said, "No, no, no, we don't need that. All we need to do is be responsible."

Well, I think that a responsible thing today is not just to complain that in our budget request that what we've done here in our authorization, that we've cut money for this and that must mean that we don't really care about the environment; or, we've cut money for this and that must mean we don't care about the oceans; we've cut money for this.

Well, if people want to restore that money, I think really they should have an obligation to tell us, "Okay, you are not being responsible by suggesting that we cut this much spending. I think we should leave that money in there, but we should cut it over here."

Now, Mr. Roemer, in my subcommittee, has been willing to do that. But, I'm afraid to say that my colleagues on the other side of the aisle who are complaining this morning aren't really known for offsetting the type of things that they want to spend money for with cuts in other areas.

In that particular case, it's these young people down here who are watching us on the Floor that are the ones who are going to suffer. And, it may sound like you are doing people a favor, but you are not. You are doing them a big disservice.

So, I hope today, as we are discussing this budget proposal, this authorization—now we do have some complaints about the priorities of the Chairman, let's hear the alternative of where you want the cuts. Let's hear it and say, "All right, we don't want to cut Mission to Plant Earth. We want to cut this other area instead."

That's a fair way to approach this. And, I would yield to the former Chairman, Mr. Brown, if he would like to comment on that.

Mr. BROWN. I thank the gentleman for yielding. And, I asked for your yield just for a point of clarification.

The Chairman is right when he says the Committee had a very poor record on passing energy authorizing legislation for many, many years. When I became the Chairman in January of 1991, I made a commitment to the then Chairman of the Energy Subcommittee that I would try to rectify that.

I found out what the problems were very quickly. They are not in this body. They are in the other body, where the Chairman of both the Appropriations Subcommittee and the authorizing committee were the same. And, they did not care to have authorizing legislation.

Nevertheless, in the second—in 1993, we were able to pass an Energy Policy Act in which this Committee participated. And, we had the cooperation of the Senate.

And, for the first time, we did pass an extensive, long term Energy Policy Act in the form of an authorizing bill. The Chairman neglected that. And, I just wanted to correct the record.

In addition, I would like to point out that all of the work we did on energy authorizing legislation last year has not borne any fruit, because none of it has passed the Senate and been signed into law. So, our record is not markedly improved, although this Committee acted aggressively on that issue and is to be commended for it.

Mr. VOLKMER. Would the gentleman yield?

Mr. ROHRABACHER. I've used up my time.

The CHAIRMAN. The time of the gentleman has expired. Mr. Tanner.

Mr. TANNER. Mr. Chairman, I wasn't going to speak, but I want to ask in furtherance of the comments that you made, when do you think that H.R. 1871, which was passed unanimously by the Technology Subcommittee last year and was never brought to the Full Committee, when do you think we might be able to act on that, since we want to be relevant in this Committee?

The CHAIRMAN. It is still pending.

Mr. TANNER. That's what I thought. Thank you.

Mr. VOLKMER. Would the gentleman yield? Would the gentleman yield?

The CHAIRMAN. The gentleman from Tennessee.

Mr. GORDON. Thank you, Mr. Chairman. There is a lot of work to do today, so I want to be very brief.

But, I do feel a need to concur with the concerns of so many of the members that have expressed their concern about the process that brought this bill before us today. My constituents at home are

telling me that they are tired of a "my way or no way" form of legislating and they want to see Democrats and Republicans work together to try to move this country forward.

I would hope that we can start that process today. As a long time member of the Minority yourself, you were one of the most articulate in demonstrating the benefits of having Minority input in legislating.

I hope, then, that today we can try to at least salvage some of the bad process that brought this bill before us by working together and trying to bring a good bill out of here. But, it will need to be done in a bipartisan way.

Mr. VOLKMER. Would the gentleman yield?

Mr. GORDON. Certainly.

Mr. VOLKMER. I have a question that I hoped to ask the gentleman from California, but his time ran out. But, I can ask him anyway and maybe you can give him time and he can answer it or maybe the gentleman from Pennsylvania, the Chairman, would like to answer the question.

I'm looking at this chart up here, this Basic Research Funding, in millions. And, I assume, Mr. Chairman, or one of the other can tell me, that the staff on your side prepared those charts.

Is that correct?

Mr. ROHRABACHER. The Chairman would have to answer that.

Mr. VOLKMER. Can somebody tell me? Who prepared those charts? Do we know?

Mr. HALL. I did.

[Laughter.]

Mr. VOLKMER. You did?

Mr. HALL. No.

[Laughter.]

Mr. VOLKMER. Does anybody know who prepared these charts? Does anybody in the room know?

[No response.]

Mr. VOLKMER. Well, nobody knows who prepared the chart. We've got a miracle.

The CHAIRMAN. I did.

Mr. VOLKMER. Thank you. Now, in those charts, we——

The CHAIRMAN. Does that surprise you, Harold?

Mr. VOLKMER. No. I'm just trying to find out. I didn't know who did it.

Now, in those, you have items that would be—if I had numbers opposite from the first one, the second one, the third one, four, five, six and seven, which are the NOAA items under basic research. And, it's my understanding that these are all applied research.

Now, they are not basic research functions under NOAA. Am I right or wrong about that, the gentleman from California?

Mr. ROHRABACHER. Well, I would have to—you would have to give me more detail for what you are specifically asking about.

Mr. VOLKMER. Well, they are all reported by NOAA to OMB as applied research. They are not basic research.

And, I am wondering what they are doing under basic research funding.

Mr. ROHRABACHER. Could you give me some specifics of what you are talking about?

Mr. VOLKMER. Yes. These Climate and Air Quality Research, Coastal Ocean Science, Sea Grant Research and Marine Research.

Mr. ROHRABACHER. And, that's all applied science and that's not basic science?

Mr. VOLKMER. Yes.

The CHAIRMAN. If the gentleman would yield——

Mr. ROHRABACHER. Let me—I will just answer by saying—and then I will yield to the Chairman—that we have done our best to protect basic research. And, many of the times that we've received criticism for cutting basic research, we look back and find that specifically, the specific programs that people are complaining about are really acts of commercialization or marketing programs that have been entitled research.

But, you will have to give me the specific program that you want for me to define. But, I would yield to the Chairman if he could answer it more without more specifics.

The CHAIRMAN. Would the gentleman yield to me?

Mr. VOLKMER. Yes. I will be glad to yield. I don't have the time. The gentleman from Tennessee has the time.

Mr. GORDON. I would be happy to yield to the Chairman.

The CHAIRMAN. Thank you. I would just like to state that we don't have another chart up here, but we have a chart that shows how much better we are in terms of protecting basic research over a four year period than what the Administration is.

I asked that those numbers be put in from NOAA to make certain that nobody could accuse us of juggling the numbers in terms of those crossing lines. And, so there is some applied research, what I would call mission research, in those accounts. There is also—those are the accounts where basic research is done, too.

I will tell you this. You take out those numbers and the President's numbers look even worse. And, so I did it in order to make certain that we were giving as honest a presentation as possible, to make certain that we were as fair as possible in the process.

If you want those numbers removed, we would be happy to remove those numbers, because the fact is that it makes the President's budget on basic science look even worse.

Mr. VOLKMER. Well, I'm not worried about you and the President. You can go have your fights with the President if you want to.

I'm concerned about his funding of basic research and calling basic research basic research and applied research applied research.

The CHAIRMAN. Well, the fact is——

Mr. VOLKMER. So, I say, take it all out.

The CHAIRMAN. I would say to the gentleman, the fact is that what basic research goes on at NOAA goes on in those accounts. And, that's the reason why we have it.

We also claim to be supporting mission oriented research. And, that's in those accounts as well.

The gentleman from Pennsylvania.

Mr. WELDON. I thank the Chairman. Mr. Chairman, I would like to respond to some of the comments that have been made here and talk about what has been raised by a number of our colleagues on the other side. And, that is bipartisan cooperation, to make sure we

are working together, both for environmental priorities and to address some of the shortcomings that members of both sides have identified.

My major concern within this bill is in a number of areas, NOAA being one of them. But, specifically what I felt was perhaps a lack of coordination and focus on the issue of oceanography and ocean research.

So, in a bipartisan spirit, Mr. Chairman, with your cooperation, last year we began a new initiative. And, every member of this Committee and the Subcommittee chaired by Mr. Rohrabacher could have been involved in this process, because we had three joint hearings.

We had joint hearings chaired by my R&D Committee for the Defense Committee, which I chair; and, the subcommittee of this Committee, which Mr. Rohrabacher chairs; and, the subcommittee of the Natural Resources Committee, which Mr. Saxton chairs. Unheard of.

And, these hearings weren't all in Republican members' districts. In fact, they held one of them in Patrick Kennedy's district in Rhode Island. And, to my recollection, the only two members of the Minority that attended were Patrick Kennedy and Mr. Reed.

I was there. We held the hearing on how we could better utilize partnerships in dealing with oceanography issues.

We also held a hearing out in California. That was in one of our freshman Republican members, Mrs. Seastrand's district.

And, we held a meeting in January in Washington, where we had the head of every major federal agency that deals in oceanography—nine specific agencies, including the head of NOAA, who was with us yesterday as Patrick Kennedy and I introduced the Oceans Partnership Act.

Now, Mr. Chairman, I want to thank you, because you have included the Oceans Partnership Act in this bill. And, what my colleagues haven't acknowledged—and maybe they haven't read the bill—is it calls for $40 million of new funding in ocean partnership programs.

It's a bipartisan bill. It's based upon a series of hearings held in this city and around the country in Republican and Democrat members' districts.

Mr. Chairman, I thank you even more, because what we've done is we have brought the Navy in, where they have spent a large amount of money in oceanography. And, they have agreed to free up available dollars to help with some of the shortcomings that Dr. Baker addressed as the head of NOAA.

Mr. VOLKMER. Will the gentleman yield?

Mr. WELDON. I will not yield yet until I finish. You had your chance.

Dr. Baker was at our press conference yesterday. Admiral Watkins was there. Admiral Watkins now represents the core group.

In case my colleague doesn't know what the core group is, it's the oceanographic research institutions and educational institutions around the country, including such prestigious institutions as Woodsol. They all got behind this initiative.

And, guess what, Mr. Chairman. It's in this bill.

And, we mark up a Defense bill next week. That same bill will be identically in the markup of the R&D portion of the Defense authorization bill with $30 million of money, with the blessing of this Committee, the Natural Resources Committee and the Defense bill, also supported by the Senate. And, it will be introduced by Senator Trent Lott with bipartisan support, moving into a new initiative in better coordinating the efforts in oceanographic research for this country, with the private and with our academic institutions.

So, I want to highlight, Mr. Chairman, your cooperation, Mr. Rohrabacher's cooperation, in allowing this issue to go forward. And, I thank my colleagues on the other side who took the time to get involved as opposed to just rallying at the Eleventh Hour.

Mr. VOLKMER. Would the gentleman yield?

Ms. HARMAN. Will the gentleman yield?

Mr. WELDON. I will be happy to yield to my friend from California.

Ms. HARMAN. I thank you. I would like to commend you for the enormous amount of bipartisan work that you do and to thank you again for the visit to my congressional district last month.

I also would say, as a bipartisan member of this Committee who will be offering an amendment later with Mr. Bartlett, that I think members should refrain from using phrases like the "squealing of the animals to the Chairman's right." As one member, hard-working member, of this Committee, I am offended by the use of words like that.

The CHAIRMAN. Thank you.

Mr. WELDON. Now, I will yield to my friend from West Virginia.[1]

Mr. VOLKMER. I first want to commend you and those that work with you on bringing about the National Oceanographic Partnership Program. I think it's a good program.

I agree with you. I think it should be funded.

But, when I look at this bill—and, if you would, look at least on the discussion draft that I have, on Page 115, "No funds are authorized to be appropriated by this Act for the National Oceanographic Partnership Program for Fiscal Year 1997."

Mr. WELDON. And, reclaiming my time, I would just repeat what I said a moment ago. As the Chairman of the Research and Development Subcommittee for the National Security Committee, there will be a $30 million authorization in the bill.

When it's marked up next Wednesday, it will be in the Full Committee. It will be in the final bill that comes to the House Floor, fully funded.

In addition, there will be $15 million in addition to this $30 million for arctic waste exploration activities by the Navy. And, there will be another $5 million to look at the issue of dredged spoils, for a total authorization of $50 million.

Mr. VOLKMER. Very good.

Mr. WELDON. So, I thank my colleague.

The CHAIRMAN. The time of the gentleman has expired. Has the Committee had enough opportunity to appropriately vent or are we

[1] The Honorable Harold Volkmer is a Democrat from the State of Missouri, not the State of West Virginia.

going to continue, it being my intention to go to a substitute of Mr. Brown as the first order of business here——

Mr. OLVER. Mr. Chairman.

The CHAIRMAN [continuing]. —if that is appropriate. I guess we still have some people who want to continue venting.

The gentleman from Massachusetts.

Mr. OLVER. Mr. Chairman, I'm not going to really object to your characterization of what I may say before even hearing what I might say as venting.

The CHAIRMAN. I include myself in that, as well.

Mr. OLVER. Pardon?

The CHAIRMAN. I include myself in that. I was the first one.

Mr. OLVER. Well, okay. If you want to characterize what you've been doing as venting and hyperventilating or whatever it may be, you are certainly welcome to do so.

But, I would prefer not to have what I may say so characterized before I even say it. I take all of this very seriously.

And, I have listened—we've had about an hour now where I've had a chance to try to understand exactly what's in this. And, I don't have your original statement before me. And, I will ask you a question about your original statement as we go.

But, am I to understand from the charts up here that all of what is in the bill today is includable in what is called basic research total in the bill, the $5.554?

The CHAIRMAN. No. There is much in the bill that does not fit the category of basic research.

Mr. OLVER. Okay. But, everything within the jurisdiction of this Committee is the $5.5?

The CHAIRMAN. Everything there is within the jurisdiction of this Committee. And, everything which is there is in the bill.

Mr. OLVER. Not the DOE, except DOE?

The CHAIRMAN. Well, we used the DOE of the House-passed figures, the House-passed figures from last year. They are in the bill.

Mr. OLVER. Okay. So, then what's in this chart is not inclusive of everything that's in the bill?

The CHAIRMAN. That's right.

Mr. OLVER. Okay. That helps a little bit, because I've been trying to find the areas.

Mission to Plant Earth, for instance, is a research function which comes under the jurisdiction of the Committee?

The CHAIRMAN. That's correct.

Mr. OLVER. But, it is not included under NASA, under the research activities under NASA. Is that a—you've included Space Science and Life and Microgravity Sciences, but you have not included——

The CHAIRMAN. There are a number of mission oriented programs that we have not included on those charts. That's right. They are not basic research.

Mr. OLVER. On those charts. Okay. The drop in funding for the Mission to Plant Earth is substantial. It's several hundred million dollars, which would, at least, in the case of NASA's authorization completely negate the idea that, in fact, the Science Committee is up above the original request.

The CHAIRMAN. Well, our point is that those mission oriented programs, such as Mission to Planet Earth, are coming at the expense of Space Science, which you can see is cut under the Clinton request. And, so, I mean, it's a question of priorities here, I would say to the gentleman.

If the gentleman agrees with Mission to Plant Earth, if he likes that mission oriented program, fine. I mean, just so we recognize that that comes at the expense of basic science.

Mr. OLVER. Okay.

The CHAIRMAN. And, our point is that we are trying to protect the basic science as opposed to some of the rest of the programs that are out there.

Mr. OLVER. Okay. I've tried very hard to look under the sheets that we've been given, given that we haven't had much chance to look at it.

Number one, there is nothing in relation to EPA that's on that chart, though that is in the bill. Research under EPA is in the bill.

The CHAIRMAN. The fact is, if the gentleman will check, he will find that virtually all of EPA research is done pursuant to the regulatory mission. And, so it is not in——

Mr. OLVER. Regulatory mission as opposed to basic research?

The CHAIRMAN. Right, because the specific job of the R&D function at EPA is to do work related to the regulatory role. And, so that would not be included as a part of this. That's correct.

Mr. OLVER. All right. Just as—I would have preferred—at least under NASA, we have several sheets, very complicated sheets. And, the only one set of numbers that I've been able to find anywhere in the sheets that we've been given that correspond basically—somewhere else there's a different tearing apart of how the numbers come together than the sheets that we've been handed.

The only one place where I can find that there is a correspondence between what is on the chart and what we have before us in the line under Climate and Air Quality Research. And, even there, the only way in those tables that are in the handouts to the members of the Committee that correspond is on the $99.3.

The other—the $115 for the President's request, I cannot put it together in the sheets that—it makes it very difficult for me to understand what we are really doing here, because I cannot find it. I cannot put it together in the same place that the $99.3 is found.

The CHAIRMAN. Well, the fact is that you are dealing with a whole series of line items. And, you know, these are charts that have been generated between the Administration submission and ours and so on.

Mr. OLVER. My guess is that if I cannot find it, most others do not know what the breakdowns are and cannot act in any intelligent way.

The CHAIRMAN. And, no one is asking you to pass the charts. We are simply using the charts to suggest to you that we feel as though we are keeping our commitment and so on.

If you look at the chart where the lines cross there, the interesting thing about that chart is it doesn't include the total budgets of all the agencies, which would include, for instance, Mission to Plant Earth under NASA on that chart. And, even when you include all of those plus-ups, the Administration still ends up taking

a bigger whack at science by the Year 2000 than we do in our particular budget.

Mr. OLVER. May I ask you one other question? Since we did not have available your opening statement, and you were reading very quickly and I do not take shorthand, but I do remember that you made some comments in the course of your opening statement about the level of authorization that comes in this bill compared with what has been—what had been authorized previously for Fiscal Year 1997.

Could you tell me again what that is for my information at this point?

The CHAIRMAN. Well——

Mr. OLVER. You had included in your opening statement some statement about—a summary about how much above, I believe——

The CHAIRMAN. Yes. We are some $430 million above what we had authorized in the budget for 1997 in the 1996 year.

Mr. OLVER. I see. So that the authorization that was passed last June for Fiscal Year 1997, this legislation is up by $430 million.

The CHAIRMAN. Over what we included in the budget last year, that's right.

Mr. OLVER. Okay. Which pretty much, it seems to me, corroborates what we were going through as a discussion here last year, that the Budget Committee, which I also serve on, it's authorizations and its Budget Committee numbers really are not binding upon the authorization committee.

The CHAIRMAN. No one has ever claimed that they are.

Mr. OLVER. You certainly were claiming that last year.

The CHAIRMAN. No. What I said last year was that we were going to try to operate in this Committee under caps that, in fact, reflected the budget, because ultimately those caps would reflect the appropriations process; and, that I wanted us to be determining priorities for real rather than simply to getting authorizations that go billions of dollars above anything the appropriators would be able to do, thereby relieving the appropriators of any obligation whatsoever to take our numbers seriously.

And, so my——

Mr. OLVER. Okay.

The CHAIRMAN. So, I set the caps. I never claimed anything else.

I said that this is something that I think the Committee should operate from so that we can, in fact, operate within the same venue as the appropriators have to do. What I found in dealing with the appropriators was that they did take us seriously as a result of that, because they did feel as though we had done our work within the same constraints that they have to operate in.

And, so the fact is that there is no legal obligation. The Ranking Member has said that over and over again he doesn't understand where the legal obligation is. There is no legal obligation.

I think we have moral obligation perhaps——

Mr. OLVER. Okay.

The CHAIRMAN [continuing]. —to operate within the same constraints that everybody has to do.

Mr. OLVER. The rest of the discussion, then, would be in relation to the opening statement by the Ranking Member as to what the

appropriators did, whether we followed the appropriators or they followed us last year.

The CHAIRMAN. Well, I mean, again——

Mr. OLVER. So, where did the $430 million come from, if I may ask?

The CHAIRMAN. The $430 million represents—as the gentleman knows from serving on the Budget Committee, there have been adjustments given to us by the CBO which changed the overall spending patterns for the budget. We are operating under a different set of economic assumptions and so on.

And, the $430 million represents a reasonably fair share of that plus-up that we have been able to put into the discretionary accounts.

Mr. OLVER. So, this is not, then—from what you have just said, the $430 is not on the basis—we know that the subcommittees have not finished their work on the different particular actions and the particular bills related to NSF or NOAA or NASA and so forth——

The CHAIRMAN. The time of the gentleman has expired.

Ms. JACKSON-LEE. Mr. Chairman.

The CHAIRMAN. The gentlewoman from Texas.

Ms. JACKSON-LEE. I move to strike the last word.

The CHAIRMAN. The gentle lady is recognized.

Ms. JACKSON-LEE. Mr. Chairman, I want to just comment on the tone of bipartisanship and simply make one or two comments as it relates to the Department of Energy and the Environmental Protection Agency. And, I'm not sure how we can claim bipartisanship when notably, one, the present bill before us, short of the Brown substitute, has no place for Department of Energy research. I am particularly interested in solar and renewable research and conservation research, which is missing.

The Environmental Protection Agency seems to have been stymied from doing research in areas like climate and indoor air and environmental technologies, particularly areas such as secondhand smoke that has come to many of our attentions as a real problem in this country. And, of course, we don't have before us—at least, my understanding is—superfund research and development.

So, as I listened to the discussion from all sides—and I am not here to cast about name-calling, but I think that certainly our caucus has continuously raised the concerns about funding research aspects of the Department of Energy and the Environmental Protection Agency, none of which seem to have gotten much attention by the Majority and certainly does not allow the kind of attention to these issues as I think we should be as we move into the 21st century.

I would hope, generally, as we move into the Brown substitute discussion that we are reminded what we should be looking to and how we should be formulating science. And, certainly R&D is a very important part of it.

Conservation should certainly be a part of it. And, certainly we can't ignore solar and renewable research and development, all of which seems to have not been taken into consideration in this present authorization bill.

I yield back the balance of my time.

The CHAIRMAN. I would ask unanimous consent, if it was appropriate, that all members may submit opening statements for the record at this point. And, then we can move on to the Brown substitute.

[The statements of Mr. Weldon, Mr. Tanner, Ms. Harman, and Ms. Johnson, and related attachments follow:]

STATEMENT OF CONGRESSMAN DAVE WELDON (R-FL) ON THE OMNIBUS CIVILIAN SCIENCE AUTHORIZATION ACT OF 1996

I would first like to thank Chairman Walker for his leadership on this bill. We all know his strong commitment to maintaining first-class research, science, and engineering in our country, and I think this omnibus bill accomplishes just that. The Subcommittee Chairmen and committee and subcommittee staff have also worked hard to put this together, and I thank them for their efforts.

We have a very important task before us today. Our nation's science and research capability is critical to our economic growth and competitiveness and is indicative of our leadership in the world.

This bill funds the agencies that are at the core of our federal science and engineering programs, and I believe it provides adequate funds to ensure those programs continue successfully. Even in tough fiscal times like these, funding science and technology efforts are critical. We cannot forego investments in our children's futures.

I am especially pleased at the level of funding for NASA. Human space flight and space science, which are the cornerstones of our nation's space program, are fully funded in this bill. In fact, space science has received an increase from the President's budget. Since human space flight is so important to our nation's future, I will strongly oppose any efforts to reduce or eliminate funding for the international Space Station. We have made too much progress to turn back now, and we cannot just turn our backs on amazing possibilities the Space Station offers us.

Once again, I thank the Chairman for his leadership and look forward to working with my colleagues today to get this bill moving towards passage in the House and Senate.

STATEMENT OF HON. JOHN S. TANNER

SUPPORT FOR DEMOCRATIC SUBSTITUTE

OMNIBUS CIVILIAN SCIENCE AUTHORIZATION BILL

I would like to speak in support of the substitute offered by the Ranking Democratic Member. This substitute tries to achieve a balance between the short-term, medium-term, and long-term research goals of the Federal Government. Although not perfect, this amendment represents a best effort to develop a research and development policy that rejects today's economic realities and the need to balance the budget. I would be willing to work with anyone to perfect this amendment, if adopted, before it comes to the Floor for consideration.

Mr. Brown's substitute amendment follows the advice of the recently released Council on Competitiveness report, *Endless Frontier, Limited Resources.* The report's central finding is "that R&D partnerships hold the key to meeting the challenge of transition that our nation now faces." Included in this definition of partnerships are the Partnership for a New Generation Vehicle, the Advanced Technology Program, and Cooperative Research and Development Agreements. The Chairman's bill moves us in a direction that is the opposite of the Council's recommendations. The Omnibus Civilian Science Authorization Act maintains the outdated distinction between basic and applied research, and based on this distinction, eliminates funding for applied research and government/industry/university partnerships.

I know that many of the Members on the other side of the aisle don't agree with the Chair's views on the role of the Federal Government in supporting R&D. For example, the bill before us today does not fund the Manufacturing Extension Partnership or the Advanced Technology Program. Many of our colleagues support both of these programs. Case in point, the Technology Subcommittee unanimously reported an authorization bill (H.R. 1871) for both of these programs last year. However, the Chair has never called the bill for consideration by the Full Committee. The result? The Appropriations Committee has funded both of these programs without any guidance from the Science Committee. In fact there is currently a bipartisan

letter drafted by Members of the Science Committee to the Appropriations Committee asking for support of the MEP. Yet the Science Committee's authorization bill is silent on the MEP. To prove an ideological point, we're considering a bill that many Members of this Committee regard as irrelevant and incomplete.

I'd like to add my strong support to one of the most important recommendations of the Council on Competitiveness' report calling for "a reasoned end to the unproductive ideological debate over the Federal Government's proper role in R&D." A vote for this amendment is a step in that direction.

OPENING STATEMENT OF HON. JANE HARMAN

HOUSE SCIENCE COMMITTEE

MARKUP OF OMNIBUS CIVILIAN SCIENCE AUTHORIZATION ACT OF 1996

Today we consider the Omnibus Civilian Science Authorization Act of 1996. Unfortunately, this legislation and its massive cuts to civilian research and development moves our country in the wrong direction as the rest of the world moves forward into the 21st century.

In particular, I am tremendously disappointed with the Committee's misguided slashing of NASA's Mission to Planet Earth—a program which Senate Republicans have recently labeled as NASA's most important priority.

Even worse than the Majority's devastating $374 million cut to the program is the fact that these massive reductions fly directly in the face of a recent National Research Council review of Mission to Planet Earth. This study, which was commissioned by Chairman Walker, recommended that Mission to Planet Earth's first elements—including PM-1 and Chem-I—be implemented without delay. How has the Majority responded? By proposing to cancel both missions.

In the past, this Committee has valued the input of the scientific community on programs under its jurisdiction. Unfortunately, the Majority has decided to abandon sound science and to continue its attacks on Mission to Planet Earth. This is only the beginning of the road for Mission to Planet Earth in Fiscal Year 1997—I can only hope that the bipartisan supporters of this key program in the House and Senate can undo the damage inflicted today.

OPENING STATEMENT OF

THE HONORABLE EDDIE BERNICE JOHNSON

MARKUP OF OMNIBUS SCIENCE AUTHORIZATION BILL

As we prepare to consider authorization legislation for the programs under the jurisdiction of the Science Committee, I am disturbed by a new development and by a continuing trend.

For what I suspect are political reasons, the Committee will not consider a title which authorizes programs of the Department of Energy (DOE). In an amendment to last fiscal year's authorization bill which was offered by the Chairman on the Floor of the House, the authorization levels were extended to fiscal year 1997. Technically, then, no consideration by this Committee of DOE programs is required. Unfortunately, "technical" requirements appear to be driving the Committee's business. The opportunity exists for us to give policy guidance on DOE programs, which the Chairman has decided against. I am disappointed by this development, and I intend to support expected amendments to return DOE to this legislative vehicle, thus allowing this Committee the opportunity to make its position on fossil energy, conservation and other programs known to the appropriators and to the general public.

Additionally, I intend to support amendments which foster public-private partnerships for research and development. During this session of Congress, the Science Committee has taken pains to eliminate programs such as the Advanced Technology Program (ATP) and the Manufacturing Extension Partnership (MEP), which create cooperative arrangements among government and industry. While the rest of the world moves ahead with development of high-risk technologies, this Committee continues to believe, contrary to much of the testimony we have been presented, that private industry will invest the necessary capital in these high-risk endeavors. Despite proven successes in the ATP and MEP, both programs are zeroed out in the markup vehicle we will consider today. This is the wrong course for America, and I will support efforts to change our direction.

The CHAIRMAN. The Clerk will designate Title I.

The THE CLERK. Title I is the National Science Foundation.

The CHAIRMAN. And, based upon the roster—I ask unanimous consent the Chairman of the Subcommittee be able to submit an opening statement on this Title for the record.Without objection.

[The prepared statement of Mr. Schiff follows:]

HONORABLE STEVE SCHIFF

TALKING POINTS FOR TITLE I, NATIONAL SCIENCE FOUNDATION

Mr. Chairman.

Last year the House passed, HR 2405, the Omnibus Civilian Science Authorization Act of 1995.

In HR 2405, the House approved a two year authorization for FY 96 and FY 97 for the National Science Foundation.

Almost all of Title I of the draft bill before us are the same provisions for FY97 as in HR 2405.

I would like to highlight the minor differences between the two bills.

In Sec 111, we have updated the authorization numbers. We have increased the Research and Related Activities Account to $2.34 billion from $2.29 billion. The Appropriations Conference level, for FY 96, is $2.27 billion for the RR&A account. We have increased the Conference level's basic research element of the RR&A account by 3% in conformance with the 96 Budget Resolution.

The Major Research Equipment account is increased from $55 million to $80 million. We maintained the funding profile for the one ongoing program (LIGO) and added $25 million for the emergency upgrade request for the South Pole Station.

The Academic Research Facilities account remains the same; however, if you are comparing this to the President's request, the Administration has zeroed out this account. NSF moved $50 million from the instrumentation account to the RR&A account and zeroed out the $50 million from the Academic Facilities Account. We feel this line item is important and have maintained this as a separate account.

NSF's Salaries and Expenses, IG, and Relocation accounts are all the same as in HR 2405.

Other differences include removing two sections from HR 2405: Sec 115 which dealt with the 96 authorization levels (no longer necessary) and; Sec 126 which dealt with inclusion of Important Notice 91 in the grant review guide, which NSF has now implemented.

The remainder of the draft legislation is the same as in H.R. 2405 except where the Committee directs reports to be done. The reporting dates were changed from 1995 to 1996 to update the legislation.

The CHAIRMAN. And, Mr. Brown.

Mr. BROWN. Thank you, Mr. Chairman. I offer at this point my amendment, in the nature of a substitute, which is before the members.

The CHAIRMAN. The Clerk will report the substitute.

The CLERK. Amendment in the nature of a substitute to the Committee print offered by Mr. Brown of California.

[Text of the amendment follows:]

AMENDMENT IN THE NATURE OF A SUBSTITUTE TO THE COMMITTEE PRINT OFFERED BY MR. BROWN OF CALIFORNIA

Strike all after the enacting clause and insert in lieu thereof the following:

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the "Science and Tech-
3 nology Investment Act of 1996".

4 TITLE I—NATIONAL SCIENCE 5 FOUNDATION

6 **SEC. 101. AUTHORIZATION OF APPROPRIATIONS.**

7 There are authorized to be appropriated to the Na-
8 tional Science Foundation $3,325,000,000 for fiscal year
9 1997, which shall be available for the following categories:
10 (1) Research and Related Activities,
11 $2,472,000,000, which shall be available for the fol-
12 lowing subcategories:
13 (A) Mathematical and Physical Sciences,
14 $708,000,000.
15 (B) Engineering, $354,300,000.
16 (C) Biological Sciences, $326,000,000.
17 (D) Geosciences, $454,000,000.
18 (E) Computer and Information Science
19 and Engineering, $277,000,000.

(F) Social, Behavioral, and Economic Sciences, $124,000,000.

(G) United States Polar Research Programs, $163,400,000.

(H) United States Antarctic Logistical Support Activities, $62,600,000.

(I) Critical Technologies Institute, $2,700,000.

(2) Education and Human Resources Activities, $619,000,000.

(3) Major Research Equipment, $95,000,000.

(4) Salaries and Expenses, $129,100,000.

(5) Office of Inspector General, $4,700,000.

(6) Headquarters Relocation, $5,200,000.

TITLE II—NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SEC. 201. FISCAL YEAR 1997 AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the National Aeronautics and Space Administration for fiscal year 1997 the following amounts:

(1) For "Human Space Flight" for the following programs:

(A) Space Station, $1,802,000,000.

(B) United States/Russian Cooperation, $138,200,000.

(C) Space Shuttle, $3,150,900,000, including for Construction of Facilities relating to the following programs:

(i) Replacement of LC–39 Pad B Chillers (KSC), $1,800,000.

(ii) Restoration of Pad B Fixed Support Structure Elevator System (KSC), $1,500,000.

(iii) Rehabilitation of 480V Electrical Distribution System, Kennedy Space Center, External Tank Manufacturing Building (MAF), $2,500,000.

(iv) Restoration of High Pressure Industrial Water Plant, Stennis Space Center, $2,500,000.

(D) Payload and Utilization Operations, $271,800,000.

(2) For "Science, Aeronautics, and Technology" for the following programs:

(A) Space Science, $1,857,300,000.

(B) Life and Microgravity Sciences and Applications, $498,500,000.

1 (C) Mission to Planet Earth,
2 $1,402,100,000.
3 (D) Aeronautical Research and Tech-
4 nology, $857,800,000.
5 (E) Space Access and Technology,
6 $725,000,000
7 (F) Academic Programs, $100,800,000.
8 (G) Mission Communication Services,
9 $420,600,000.
10 (3) For "Mission Support" for the following
11 programs:
12 (A) Safety, Reliability, and Quality Assur-
13 ance, $36,700,000.
14 (B) Space Communication Services,
15 $291,400,000.
16 (C) Construction of Facilities, including
17 land acquisition, including the following:
18 (i) Modernization of Electrical Dis-
19 tribution System, Ames Research Center,
20 $2,400,000.
21 (ii) Modification of Aircraft Ramp and
22 Tow Way, Dryden Flight Research Center,
23 $3,000,000.

1 (iii) Restoration of Hangar Building
2 4801, Dryden Flight Research Center,
3 $4,500,000.
4 (iv) Modernization of Secondary Elec-
5 trical Systems, Goddard Space Flight Cen-
6 ter, $1,500,000.
7 (v) Restoration of Chilled Water Dis-
8 tribution System, Goddard Space Flight
9 Center, $4,000,000.
10 (vi) Modification of Refrigeration Sys-
11 tems, Various Buildings, Jet Propulsion
12 Laboratory, $2,800,000.
13 (vii) Rehabilitation of Electrical Dis-
14 tribution System, White Sands Test Facil-
15 ity, Johnson Space Center, $2,600,000.
16 (viii) Rehabilitation of Utility Tunnel
17 Structure and System, Johnson Space
18 Center, $4,400,000.
19 (ix) Replacement of DX Units with
20 Central Chilled Water System, Logistics
21 Facility, Kennedy Space Center,
22 $1,800,000.
23 (x) Rehabilitation of Central Air
24 Equipment Building, Lewis Research Cen-
25 ter, $6,500,000.

(xi) Modification of Chilled Water System, Marshall Space Flight Center, $6,700,000.

(xii) Rehabilitation of Condenser Water System, 202/207 Complex (MAF), $2,100,000.

(xiii) Minor Revitalization of Facilities at Various Locations, not in excess of $1,500,000 per project, $57,900,000.

(xiv) Minor construction of new facilities and additions to existing facilities at various locations, not in excess of $1,500,000 per project, $3,400,000.

(xv) Facility planning and design, not otherwise provided for, $18,700,000.

(xvi) Environmental compliance and restoration, $33,000,000.

(D) Research and Program Management, $2,078,800,000.

(4) For "Inspector General", $17,000,000.

SEC. 202. NATIONAL AERONAUTICS AND SPACE ACT OF 1958 AMENDMENT.

Section 102(d)(1) of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2451(d)(1)) is amended by

1 inserting "and its climate and environment," after
2 "knowledge of the Earth".

3 TITLE III—DEPARTMENT OF
4 ENERGY

5 **SEC. 301. SHORT TITLE.**

6 This title may be cited as the "Energy Research and
7 Development Act of 1996".

8 **SEC. 302. FINDINGS.**

9 The Congress finds that—

10 (1) Federal support of research and develop-
11 ment in general, and energy research and develop-
12 ment in particular, has played a key role in the
13 growth of the United States economy since World
14 War II through the production of new knowledge,
15 the development of new technologies and processes,
16 and the demonstration of such new technologies and
17 processes for application to industrial and other
18 uses;

19 (2) Federal support of energy research and de-
20 velopment is especially important because such re-
21 search and development contributes to solutions for
22 national problems in energy security, environmental
23 protection, and economic competitiveness;

24 (3) the Department of Energy has successfully
25 promoted new technologies and processes to address

1 problems with energy supply, fossil energy, and en-
2 ergy conservation through its various research and
3 development programs;
4 (4) while the Federal budget deficit and pay-
5 ments on the national debt must be addressed
6 through cost-cutting measures, investments in re-
7 search and development on key energy issues must
8 be maintained;
9 (5) within the last two years, the Department
10 of Energy has made great strides in managing its
11 programs more efficiently and effectively;
12 (6) significant savings should result from these
13 measures without hampering the Department's core
14 missions; and
15 (7) the Strategic Realignment Initiative and
16 other such efforts of the Department should be con-
17 tinued.
18 **SEC. 303. DEFINITIONS.**
19 For purposes of this title—
20 (1) the term "Department" means the Depart-
21 ment of Energy; and
22 (2) the term "Secretary" means the Secretary
23 of Energy.

1 **SEC. 304. ENERGY CONSERVATION.**

2 There are authorized to be appropriated to the Sec-
3 retary for fiscal year 1997 for energy conservation re-
4 search, development, and demonstration—

5 (1) $99,721,000 for energy conservation in
6 building technology, State, and community sector-
7 nongrant;

8 (2) $159,434,000 for energy conservation in the
9 industry sector;

10 (3) $221,308,000 for energy conservation in the
11 transportation sector; and

12 (4) $28,350,000 for policy and management ac-
13 tivities.

14 **SEC. 305. FOSSIL ENERGY.**

15 There are authorized to be appropriated to the Sec-
16 retary for fiscal year 1997 for fossil energy research, de-
17 velopment, and demonstration—

18 (1) $102,629,000 for coal;

19 (2) $52,537,000 for petroleum;

20 (3) $103,708,000 for gas;

21 (4) $4,000,000 for the Fossil Energy Coopera-
22 tive Research and Development Program;

23 (5) $2,188,000 for fuel conversion, natural gas,
24 and electricity;

25 (6) $60,115,000 for program direction and
26 management;

1 (7) $3,304,000 for plant and capital improve-
2 ments;
3 (8) $15,027,000 for environmental restoration;
4 and
5 (9) $5,000,000 for mining.

6 **SEC. 306. HIGH ENERGY AND NUCLEAR PHYSICS.**

7 There are authorized to be appropriated to the Sec-
8 retary for fiscal year 1997 for high energy and nuclear
9 physics activities of the Department—
10 (1) $679,125,000 for high energy physics ac-
11 tivities;
12 (2) $318,425,000 for nuclear physics activities;
13 and
14 (3) $11,600,000 for program direction.

15 **SEC. 307. SOLAR AND RENEWABLE ENERGY.**

16 There are authorized to be appropriated to the Sec-
17 retary for fiscal year 1997 for solar and renewable energy
18 research, development, and demonstration—
19 (1) $263,282,000 for solar energy;
20 (2) $35,600,000 for geothermal energy;
21 (3) $11,012,000 for hydrogen energy;
22 (4) $17,301,000 for policy and management;
23 (5) $36,050,000 for electric energy systems and
24 storage; and

1 (6) $5,700,000 for in-house energy manage-
2 ment.

3 **SEC. 308. NUCLEAR ENERGY.**

4 There are authorized to be appropriated to the Sec-
5 retary for fiscal year 1997 for nuclear energy research,
6 development, and demonstration—

7 (1) $137,750,000 for nuclear energy, including
8 $40,000,000 for the Advanced Light Water Reactor
9 program;

10 (2) $79,100,000 for the termination of certain
11 facilities;

12 (3) $12,704,000 for isotope support; and

13 (4) $18,500,000 for program direction.

14 **SEC. 309. ENVIRONMENT, SAFETY, AND HEALTH.**

15 There are authorized to be appropriated to the Sec-
16 retary for fiscal year 1997 for research, development, and
17 demonstration—

18 (1) $73,160,000 for the Office of Environ-
19 mental Safety and Health; and

20 (2) $39,046,000 for program direction.

21 **SEC. 310. ENERGY RESEARCH DIRECTORATE.**

22 (a) AUTHORIZATIONS.—There are authorized to be
23 appropriated to the Secretary for fiscal year 1997—

24 (1) $379,075,000 for biological and environ-
25 mental research activities;

1 (2) $255,600,000 for fusion energy research,
2 development, and demonstration;
3 (3) $653,675,000 for basic energy sciences ac-
4 tivities, of which $1,000,000 shall be for planning
5 activities for neutron source upgrades; and
6 (4) $158,143,000 for computational and tech-
7 nology research.
8 (b) REPORT TO CONGRESS.—Before May 1, 1997,
9 the Secretary, after consultation with the relevant sci-
10 entific communities, shall prepare and transmit to the
11 Congress a report detailing a strategic plan for the oper-
12 ation of facilities that are provided funds authorized by
13 subsection (a)(3). The report shall include—
14 (1) a list of such facilities, including schedules
15 for continuation, upgrade, transfer, or closure of
16 each facility;
17 (2) a list of proposed facilities to be provided
18 funds authorized by subsection (a)(3), including
19 schedules for the construction and operation of each
20 facility;
21 (3) a list of research opportunities to be pur-
22 sued, including both ongoing and proposed activities,
23 by the research activities authorized by subsection
24 (a)(3); and

1 (4) an analysis of the relevance of each facility
2 listed in paragraphs (1) and (2) to the research op-
3 portunities listed in paragraph (3).

4 **SEC. 311. SUPPORT PROGRAMS FOR ENERGY SUPPLY RE-**
5 **SEARCH AND DEVELOPMENT.**

6 There are authorized to be appropriated to the Sec-
7 retary for fiscal year 1997 for support programs for En-
8 ergy Supply Research and Development—
9 (1) $2,000,000 for Energy Research Analyses;
10 (2) $28,885,000 for the Multi-Program Energy
11 Laboratory program;
12 (3) $14,900,000 for the Information Manage-
13 ment Investment program;
14 (4) $42,154,000 for program direction;
15 (5) $19,900,000 for University and Science
16 Education programs;
17 (6) $12,000,000 for the Technology Informa-
18 tion Management Program; and
19 (7) $651,414,000 for Civilian Environmental
20 Restoration and Waste Management.

TITLE IV—NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

SEC. 401. SHORT TITLE.

This title may be cited as the "National Oceanic and Atmospheric Administration Authorization Act of 1996".

SEC. 402. POLICY AND PURPOSE.

It is the policy of the United States and the purpose of this title to—

(1) support and promote continuing the mission of the National Oceanic and Atmospheric Administration to monitor, describe and predict changes in the Earth's environment, protect lives and property, and conserve and manage the Nation's coastal and marine resources to ensure sustainable economic opportunities;

(2) affirm that such mission involves basic responsibilities of the Federal Government for ensuring general public safety, national security, and environmental well-being, and promising economic growth;

(3) affirm that the successful execution of such mission depends strongly on interdependency and synergism among component activities of the National Oceanic and Atmospheric Administration;

1 (4) recognize that the activities of the National
2 Oceanic and Atmospheric Administration underlie
3 the societal and economic well-being of many sectors
4 of our Nation; and
5 (5) recognize that such mission is most effec-
6 tively performed by a single Federal agency with the
7 capability to link societal and economic decisions
8 with a comprehensive understanding of the Earth's
9 environment, as provided for in this title.

10 **SEC. 403. NATIONAL WEATHER SERVICE OPERATIONS AND**
11 **RESEARCH.**

12 There are authorized to be appropriated to the Sec-
13 retary of Commerce to enable the National Oceanic and
14 Atmospheric Administration to carry out the operations
15 and research activities of the National Weather Service
16 $471,702,000 for fiscal year 1997.

17 **SEC. 404. NATIONAL WEATHER SERVICE SYSTEMS ACQUISI-**
18 **TION.**

19 (a) AUTHORIZATION.—There are authorized to be ap-
20 propriated to the Secretary of Commerce to enable the Na-
21 tional Oceanic and Atmospheric Administration to im-
22 prove its public warning and forecast systems $68,984,000
23 for fiscal year 1997. None of the funds authorized under
24 this section may be used for the purposes for which funds
25 are authorized under section 102(b) of the National Oce-

1 anic and Atmospheric Administration Authorization Act
2 of 1992 (Public Law 102–567).
3 (b) AWIPS COMPLETE PROGRAM AUTHORIZA-
4 TION.—(1) Except as provided in paragraph (2), there are
5 authorized to be appropriated to the Secretary for all fiscal
6 years beginning after September 30, 1996, an aggregate
7 of $271,166,000, to remain available until expended, to
8 complete the acquisition and deployment of the Advanced
9 Weather Interactive Processing System and NOAA Port
10 and to cover all associated activities, including program
11 management and operations and maintenance through
12 September 30, 1999.
13 (2) No funds are authorized to be appropriated for
14 any fiscal year under paragraph (1) unless, within 60 days
15 after the submission of the President's budget request for
16 such fiscal year, the Secretary—
17 (A) certifies to the Congress that—
18 (i) the systems meet the technical perform-
19 ance specifications included in the system con-
20 tract as in effect on August 11, 1995;
21 (ii) the systems can be fully deployed,
22 sited, and operational without requiring further
23 appropriations beyond amounts authorized
24 under paragraph (1); and

1 (iii) the Secretary does not foresee any
2 delays in the systems deployment and oper-
3 ations schedule; or
4 (B) submits to the Congress a report which de-
5 scribes—
6 (i) the circumstances which prevent a cer-
7 tification under subparagraph (A);
8 (ii) remedial actions undertaken or to be
9 undertaken with respect to such circumstances;
10 (iii) the effects of such circumstances on
11 the systems deployment and operations schedule
12 and systems coverage; and
13 (iv) a justification for proceeding with the
14 program, if appropriate.
15 (c) REPEAL.—Section 102(b)(2) of the National Oce-
16 anic and Atmospheric Administration Authorization Act
17 of 1992 is repealed.
18 **SEC. 405. WEATHER SERVICE MODERNIZATION.**
19 (a) AMENDMENTS.—The Weather Service Mod-
20 ernization Act is amended—
21 (1) in section 706—
22 (A) by striking "60-day" in subsection
23 (c)(2) and inserting in lieu thereof "30-day";
24 (B) by amending subsection (b)(6) to read
25 as follows:

1 "(6) any recommendations of the Committee
2 submitted under section 707(c) that evaluate the
3 certification.";
4 (C) by amending subsection (d) to read as
5 follows:
6 "(d) FINAL DECISION.—If the Secretary decides to
7 close, consolidate, automate, or relocate any such field of-
8 fice, the Secretary shall publish the certification in the
9 Federal Register and submit the certification to the Com-
10 mittee on Commerce, Science, and Transportation of the
11 Senate and the Committee on Science of the House of
12 Representatives."; and
13 (D) by amending subsection (f) to read as
14 follows:
15 "(f) PUBLIC LIAISON.—The Secretary shall maintain
16 for a period of at least two years after the closure of any
17 weather office a program to—
18 "(1) provide timely information regarding the
19 activities of the National Weather Service which may
20 affect service to the community, including mod-
21 ernization and restructuring; and
22 "(2) work with area weather service users, in-
23 cluding persons associated with general aviation,
24 civil defense, emergency preparedness, and the news

1 media, with respect to the provision of timely weath-
2 er warnings and forecasts."; and
3 (2) by amending section 707(c) to read as fol-
4 lows:
5 "(c) DUTIES.—The Committee may review any cer-
6 tification under section 706, for which the Secretary has
7 provided a notice of intent to certify, in the plan, including
8 any certification for which there is a significant potential
9 for degradation of service within the affected area. Upon
10 the request of the Committee, the Secretary shall make
11 available to the Committee the supporting documents de-
12 veloped by the Secretary in connection with the certifi-
13 cation. The Committee shall evaluate any certification re-
14 viewed on the basis of the modernization criteria and with
15 respect to the requirement that there be no degradation
16 of service, and advise the Secretary accordingly.".
17 (b) SENSE OF CONGRESS REGARDING ADDITIONAL
18 MODERNIZATION ACTIVITIES.—It is the sense of Congress
19 that the Secretary of Commerce should plan for the imple-
20 mentation of a follow-on modernization program aimed at
21 improving weather services provided to areas which do not
22 receive weather radar coverage at 10,000 feet. In carrying
23 out such a program, the Secretary should plan for a pro-
24 curement of Block II NEXRAD radar units.

1 **SEC. 406. BASIC FUNCTIONS AND PRIVATIZATION OF NA-**
2 **TIONAL WEATHER SERVICE .**

3 (a) BASIC FUNCTIONS.—The basic functions of the
4 National Weather Service shall be—

5 (1) the provision of forecasts and warnings in-
6 cluding forecasts and warnings, of severe weather,
7 flooding, hurricanes, and tsunami events;

8 (2) the collection, exchange, and distribution of
9 meteorological, hydrologic, climatic, and oceano-
10 graphic data and information; and

11 (3) the preparation of hydrometeorological guid-
12 ance and core forecast information.

13 (b) PROHIBITION.—The National Weather Service
14 shall not provide any new or enhanced weather services
15 for the sole benefit of an identifiable private entity or
16 group of such entities operating in any sector of the na-
17 tional or international economy in competition with the
18 private weather service industry.

19 (c) NEW OR ENHANCED SERVICE.—If the Secretary
20 determines, after consultation with appropriate Federal
21 and State officials, that a new or enhanced weather service
22 is necessary and in the public interest to fulfill the inter-
23 national obligations of the United States, to enable State
24 or Federal emergency or resource managers to better per-
25 form their State or Federal duties, or to carry out the
26 functions of the National Weather Service described in

1 subsection (a), the National Weather Service may provide
2 such new or enhanced service as one of its basic functions
3 if—

4 (1) each new or enhanced service provided by
5 the National Weather Service will be limited to the
6 level that the Secretary determines necessary to ful-
7 fill the requirements of this subsection, taking into
8 account the capabilities and limitations of resources
9 available, scientific knowledge, and technological ca-
10 pability of the National Weather Service; and

11 (2) upon request, the National Weather Service
12 will promptly make available to any person the data
13 or data products supporting the new or enhanced
14 service provided pursuant to this section, at a cost
15 not greater than that sufficient to recover the cost
16 of dissemination.

17 (d) FEDERAL REGISTER.—The Secretary shall
18 promptly publish in the Federal Register each determina-
19 tion made under subsection (c).

20 (e) PRIVATIZATION REVIEW.—The Secretary shall,
21 by February 15, 1997, conduct a review of all existing
22 weather services and activities performed by the National
23 Oceanic and Atmospheric Administration in order to iden-
24 tify those activities which may be transferred to the pri-
25 vate sector. Such review shall include a determination that

1 activities identified for privatization will continue to be
2 disseminated to users on a reasonably affordable basis
3 with no degradation of service. The Secretary shall, by
4 March 15, 1997, provide to the Speaker of the House of
5 Representatives and the President of the Senate a plan
6 for transferring these identified services to the private sec-
7 tor.

8 **SEC. 407. CLIMATE AND AIR QUALITY RESEARCH.**

9 (a) AUTHORIZATION.—There are authorized to be ap-
10 propriated to the Secretary of Commerce to enable the Na-
11 tional Oceanic and Atmospheric Administration to carry
12 out its climate and air quality research activities
13 $122,681,000 for fiscal year 1997.

14 (b) GLOBE.—Of the amount authorized in sub-
15 section (a), $7,000,000 are authorized for fiscal year 1997
16 for a program to increase scientific understanding of the
17 Earth and student achievement in math and science by
18 using a worldwide network of schools to collect environ-
19 mental observations. Beginning in fiscal year 1997,
20 amounts appropriated for such program may be obligated
21 only to the extent that an equal or greater amount of non-
22 Federal funding is provided for such program.

23 **SEC. 408. ATMOSPHERIC RESEARCH.**

24 There are authorized to be appropriated to the Sec-
25 retary of Commerce to enable the National Oceanic and

1 Atmospheric Administration to carry out its atmospheric
2 research activities $43,766,000 for fiscal year 1997.

3 **SEC. 409. OCEANS AND GREAT LAKES PROGRAMS.**

4 (a) MARINE PREDICTION RESEARCH.—There are au-
5 thorized to be appropriated to the Secretary of Commerce
6 to enable the National Oceanic and Atmospheric Adminis-
7 tration to carry out its oceans and Great Lakes research
8 activities, including Marine Prediction Research,
9 $17,308,000 for fiscal year 1997.

10 (b) SEA GRANT.—Section 212(a) and (b) of the Na-
11 tional Sea Grant College Program Act (33 U.S.C. 1131
12 (a) and (b)) are amended to read as follows:

13 "(a) The Secretary shall maintain within the Admin-
14 istration a program to be known as the National Sea
15 Grant College Program. The National Sea Grant College
16 Program shall consist of the financial assistance and other
17 activities provided for in this Act, and shall be adminis-
18 tered by a National Sea Grant Office within the Adminis-
19 tration. The Secretary shall establish long-range planning
20 guidelines and priorities for, and adequately evaluate, this
21 program.

22 "(b) There are authorized to be appropriated to carry
23 out all aspects of the National Sea Grant College Pro-
24 gram, including research directed toward zebra mussel

1 and other aquatic nuisance mitigation, $49,793,000 for
2 fiscal year 1997.".

3 (c) NATIONAL UNDERSEA RESEARCH.—By February
4 15, 1997, the Administrator of the National Oceanic and
5 Atmospheric Administration shall submit to the Commit-
6 tee on Science of the House of Representatives and the
7 Committee on Commerce, Science, and Transportation of
8 the Senate a report setting forth those specific actions
9 taken to ensure that a national program of undersea re-
10 search is established and carried out on a competitive
11 basis through peer reviewed extramural grants and con-
12 tracts. Within the amounts authorized by this title, there
13 are authorized such sums as may be necessary for carrying
14 out the purposes of this subsection.

15 **SEC. 410. SATELLITE OBSERVING AND ENVIRONMENTAL**
16 **DATA MANAGEMENT SYSTEMS.**

17 (a) AUTHORIZATION.—There are authorized to be ap-
18 propriated to the Secretary of Commerce to enable the Na-
19 tional Oceanic and Atmospheric Administration to carry
20 out its satellite observing systems activities and data and
21 information services, $348,740,000 for fiscal year 1997,
22 and, in addition, such sums as may be necessary to con-
23 tinue planning and development of a converged polar or-
24 biting meteorological satellite program. None of the funds
25 authorized in this subsection may be used for the purposes

1 for which funds are authorized under section 105(d) of
2 the National Oceanic and Atmospheric Administration Act
3 of 1992 (Public Law 102–567).

4 (b) REPEAL.—Section 105(d)(2) of the National Oce-
5 anic and Atmospheric Administration Authorization Act
6 of 1992 is repealed.

7 **SEC. 411. NATIONAL OCEAN SERVICE OBSERVATION AND**
8 **ASSESSMENT.**

9 There are authorized to be appropriated to the Sec-
10 retary of Commerce to enable the National Oceanic and
11 Atmospheric Administration to carry out observation and
12 assessment activities $65,874,000 for fiscal year 1997.

13 **SEC. 412. PROGRAM SUPPORT.**

14 (a) EXECUTIVE DIRECTION AND ADMINISTRATIVE
15 ACTIVITIES.—There are authorized to be appropriated to
16 the Secretary of Commerce to enable the National Oceanic
17 and Atmospheric Administration to carry out executive di-
18 rection and administrative activities, including manage-
19 ment, administrative support, provision of retired pay of
20 National Oceanic and Atmospheric Administration com-
21 missioned officers, and policy development, $64,694,000
22 for fiscal year 1997.

23 (b) ACQUISITION, CONSTRUCTION, MAINTENANCE,
24 AND OPERATION OF FACILITIES.—There are authorized
25 to be appropriated to the Secretary of Commerce for ac-

1 quisition, construction, maintenance, and operation of fa-
2 cilities of the National Oceanic and Atmospheric Adminis-
3 tration $37,366,000 for fiscal year 1997.

4 (c) MARINE SERVICES.—There are authorized to be
5 appropriated to the Secretary of Commerce to enable the
6 National Oceanic and Atmospheric Administration to
7 carry out marine service activities, including ship oper-
8 ations, maintenance, and support, $56,292,000 for fiscal
9 year 1997.

10 (d) AIRCRAFT SERVICES.—There are authorized to
11 be appropriated to the Secretary of Commerce to enable
12 the National Oceanic and Atmospheric Administration to
13 carry out aircraft services activities, including aircraft op-
14 erations, maintenance, and support, $10,182,000 for fiscal
15 year 1997.

16 (e) VOLUNTARY SEPARATIONS AND RETIREMENTS.—
17 To ease the transition into the civilian workforce of mem-
18 bers of the National Oceanic and Atmospheric Administra-
19 tion Commissioned Officer Corps and to facilitate the re-
20 duction of active duty officers—

21 (1) section 1174a of title 10, United States
22 Code, shall apply to the NOAA Corps in the same
23 manner and to the same extent as that provision ap-
24 plies to the Department of Defense, and the Sec-
25 retary of Commerce shall implement the provisions

1 of that section with respect to the NOAA Corps and
2 apply the applicable provisions of title 33, United
3 States Code, relating to separation of NOAA Corps
4 personnel; and
5 (2) section 4403(a) and (g) through (i) of the
6 Defense Authorization Act for Fiscal Year 1993
7 (Public Law 102–484; 106 Stat. 2315) shall apply
8 to the NOAA Corps in the same manner and to the
9 same extent as those provisions apply to the Depart-
10 ment of Defense, and the Secretary of Commerce
11 shall implement those provisions with respect to the
12 NOAA Corps and apply the applicable provisions of
13 title 33, United States Code, relating to retirement
14 of NOAA Corps personnel.

15 **SEC. 413. NOAA FLEET MODERNIZATION.**

16 There are authorized to the Secretary of Commerce
17 to enable the National Oceanic and Atmospheric Adminis-
18 tration to carry out fleet modernization activities, includ-
19 ing repair, construction, acquisition, leasing, charter, or
20 conversion of vessels, including related equipment to main-
21 tain and modernize the existing fleet and to continue plan-
22 ning fleet modernization activities and contracting for
23 services provided by nongovernment sources, $12,000,000
24 for fiscal year 1997.

1 **SEC. 414. EDUCATIONAL PROGRAMS AND ACTIVITIES.**

2 The Secretary of Commerce may conduct educational
3 programs and activities related to the responsibilities of
4 the National Oceanic and Atmospheric Administration.
5 For the purposes of this section, the Secretary may award
6 grants and enter into cooperative agreements and con-
7 tracts with States, private sector, and nonprofit entities.

8 TITLE V—ENVIRONMENTAL 9 PROTECTION AGENCY

10 **SEC. 501. SHORT TITLE.**

11 This title may be cited as the "Environmental Re-
12 search, Development, and Demonstration Authorization
13 Act of 1996".

14 **SEC. 502. DEFINITIONS.**

15 For the purposes of this title, the term—

16 (1) "Administrator" means the Administrator
17 of the Environmental Protection Agency;

18 (2) "Agency" means the Environmental Protec-
19 tion Agency; and

20 (3) "Assistant Administrator" means the As-
21 sistant Administrator for Research and Development
22 of the Agency.

23 **SEC. 503. AUTHORIZATION OF APPROPRIATIONS.**

24 (a) IN GENERAL.—There are authorized to be appro-
25 priated to the Administrator $537,610,200 for fiscal year
26 1997 for the Office of Research and Development for envi-

1 ronmental research, development, and demonstration ac-
2 tivities, including program management and support, in
3 the areas specified in subsection (b).
4 (b) SPECIFIC PROGRAMS AND ACTIVITIES.—Of the
5 amount authorized in subsection (a), there are authorized
6 to be appropriated the following:
7 (1) For air related research, $88,163,200.
8 (2) For water quality related research
9 $26,293,800.
10 (3) For drinking water related research
11 $26,593,700.
12 (4) For pesticide related research, $20,632,000
13 (5) For toxic chemical related research
14 $12,341,500.
15 (6) For research related to hazardous waste
16 $10,343,900.
17 (7) For multimedia related research expenses
18 $300,837,000.
19 (8) For program management expenses
20 $8,184,700.
21 (9) For research related to leaking underground
22 storage tanks, $681,000.
23 (10) For oil pollution related research
24 $1,031,000.

1 (11) For environmental research laboratories,
2 $85,358,200.
3 (c) CONTINGENT AUTHORIZATION FOR RESEARCH
4 RELATING TO THE CLEANUP OF CONTAMINATED
5 SITES.—To the extent that the Hazardous Substances
6 Trust Fund is authorized to receive funds during fiscal
7 year 1997, there are authorized to be appropriated for
8 that fiscal year $42,000,000 from such Fund to the Ad-
9 ministrator for research relating to the cleanup of con-
10 taminated sites.
11 **SEC. 504. SCIENTIFIC RESEARCH REVIEW.**
12 The Administrator shall assign to the Assistant Ad-
13 ministrator the duties of—
14 (1) developing a strategic plan for scientific and
15 technical activities throughout the Agency;
16 (2) integrating that strategic plan into ongoing
17 Agency planning activities; and
18 (3) reviewing all Agency research to ensure the
19 research—
20 (A) is of high quality; and
21 (B) does not duplicate any other research
22 being conducted by the Agency.

TITLE VI—TECHNOLOGY

SEC. 601. SHORT TITLE.

This title may be cited as the "Technology Administration Authorization Act of 1996".

SEC. 602. AUTHORIZATION OF APPROPRIATIONS.

(a) UNDER SECRETARY FOR TECHNOLOGY.—There are authorized to be appropriated to the Secretary of Commerce for the activities of the Under Secretary for Technology/Office of Technology Policy $9,531,000 for fiscal year 1997.

(b) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—There are authorized to be appropriated to the Secretary of Commerce for the National Institute of Standards and Technology for fiscal year 1997 the following amounts:

(1) For Industrial Technology Services, $450,000,000, of which—

(A) $345,000,000 shall be for the Advanced Technology Program under section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n); and

(B) $105,000,000 shall be for the Manufacturing Extension Partnerships program under sections 25 and 26 of the National Insti-

1 tute of Standards and Technology Act (15
2 U.S.C. 278k and 278l).
3 (2) For Scientific and Technical Research and
4 Services, $270,744,000, of which—
5 (A) $267,764,000 shall be for Laboratory
6 Research and Services; and
7 (B) $2,980,000 shall be for the Malcolm
8 Baldrige National Quality Award program
9 under section 17 of the Stevenson-Wydler Tech-
10 nology Innovation Act of 1980 (15 U.S.C.
11 3711a).

12 **SEC. 603. NATIONAL INSTITUTE OF STANDARDS AND TECH-**
13 **NOLOGY ACT AMENDMENTS.**

14 The National Institute of Standards and Technology
15 Act (15 U.S.C. 271 et seq.) is amended—
16 (1) in section 25(c)—
17 (A) by striking "for a period not to exceed
18 six years" in paragraph (1); and
19 (B) by striking "which are designed" and
20 all that follows through "operation of a Center"
21 in paragraph (5) and inserting in lieu thereof
22 "to a maximum of ⅓ Federal funding. Each
23 Center which receives financial assistance under
24 this section shall be evaluated during its sixth
25 year of operations, and at least once each two

1 years thereafter as the Secretary considers ap-
2 propriate, by an evaluation panel appointed by
3 the Secretary in the same manner as was the
4 evaluation panel previously appointed. The Sec-
5 retary shall not provide funding for additional
6 years of the Center's operation unless the most
7 recent evaluation is positive and the Secretary
8 finds that continuation of funding furthers the
9 purposes of this section"; and
10 (2) in section 28—
11 (A) by striking "or contracts" in sub-
12 section (b)(1)(B), and inserting in lieu thereof
13 "contracts, and, subject to the last sentence of
14 this subsection, other transactions";
15 (B) by inserting "and if the non-Federal
16 participants in the joint venture agree to pay at
17 least 50 percent of the total costs of the joint
18 venture during the Federal participation period,
19 which shall not exceed 5 years," after "partici-
20 pation to be appropriate,";
21 (C) by striking "provision of a minority
22 share of the cost of such joint ventures for up
23 to 5 years, and (iii)" in subsection (b)(1)(B),
24 and inserting in lieu thereof "and";

1 (D) by striking "and cooperative agree-
2 ments" in subsection (b)(2), and inserting in
3 lieu thereof ", cooperative agreements, and,
4 subject to the last sentence of this subsection,
5 other transactions";
6 (E) by adding after subsection (b)(4) the
7 following:
8 "The authority under paragraph (1)(B) and paragraph
9 (2) to enter into other transactions shall apply only if the
10 Secretary, acting through the Director, determines that
11 standard contracts, grants, or cooperative agreements are
12 not feasible or appropriate, and only when other trans-
13 action instruments incorporate terms and conditions that
14 reflect the use of generally accepted commercial account-
15 ing and auditing practices."; and
16 (F) by adding at the end the following new
17 subsection:
18 "(k) Notwithstanding subsection (b)(1)(B)(ii) and
19 subsection (d)(3), the Director may grant extensions be-
20 yond the deadlines established under those subsections for
21 joint venture and single applicant awardees to expend
22 Federal funds to complete their projects, if such extension
23 may be granted with no additional cost to the Federal
24 Government and it is in the Federal Government's interest
25 to do so.".

TITLE VII—UNITED STATES FIRE ADMINISTRATION

SEC. 701. SHORT TITLE.

This title may be cited as the "Fire Administration Authorization Act of 1996".

SEC. 702. AUTHORIZATION OF APPROPRIATIONS.

Section 17(g)(1) of the Federal Fire Prevention and Control Act of 1974 (15 U.S.C. 2216(a)(1)) is amended—

(1) by striking "and" at the end of subparagraph (E);

(2) by striking the period at the end of subparagraph (F) and inserting in lieu thereof "; and"; and

(3) by adding at the end the following new subparagraph:

"(G) $27,560,000 for the fiscal year ending September 30, 1997.".

TITLE VIII—FEDERAL AVIATION ADMINISTRATION RESEARCH, ENGINEERING, AND DEVELOPMENT

SEC. 801. AVIATION RESEARCH AUTHORIZATION.

Section 48102(a) of title 49, United States Code, is amended—

1 (1) by striking "Not more than the following
2 amounts" and inserting in lieu thereof "For fiscal
3 year 1997, not more than $195,700,000 for Re-
4 search, Engineering, and Development, in addition
5 to amounts otherwise authorized for the Engineer-
6 ing, Development, Test, and Evaluation component
7 of Facilities and Equipment,";
8 (2) by inserting "40119, 44912," after "carry
9 out sections"; and
10 (3) by striking "of this title" and all that fol-
11 lows through the end of the subsection and inserting
12 in lieu thereof "of this title".

13 **SEC. 802. RESEARCH PRIORITIES.**

14 Section 48102(b) of title 49, United States Code, is
15 amended—
16 (1) by redesignating paragraph (2) as para-
17 graph (3); and
18 (2) by striking "AVAILABILITY FOR RE-
19 SEARCH.—(1)" and inserting in lieu thereof "RE-
20 SEARCH PRIORITIES.—(1) The Administrator shall
21 consider the advice and recommendations of the re-
22 search advisory committee established by section
23 44508 of this title in establishing priorities among
24 major categories of research and development activi-

1 ties carried out by the Federal Aviation Administra-
2 tion.
3 "(2)".

4 **SEC. 803. BUDGET DESIGNATION FOR FEDERAL AVIATION**
5 **ADMINISTRATION RESEARCH AND DEVELOP-**
6 **MENT ACTIVITIES.**

7 Section 48102(c) of title 49, United States Code, is
8 amended to read as follows:
9 "(c) DESIGNATION OF ACTIVITIES.—(1) The
10 amounts appropriated under subsection (a) are for the
11 support of all research and development activities carried
12 out by the Federal Aviation Administration that fall with-
13 in the categories of basic research, applied research, and
14 development, including the design and development of pro-
15 totypes, in accordance with the classifications of the Office
16 of Management and Budget Circular A–11 (Budget For-
17 mulation/Submission Process).
18 "(2) The President's annual budget request for the
19 Federal Aviation Administration shall include all research
20 and development activities within a single budget category.
21 All of the activities carried out by the Administration with-
22 in the categories of basic research, applied research, and
23 development, as classified by the Office of Management
24 and Budget Circular A–11, shall be placed in this single
25 budget category.".

1 **SEC. 804. RESEARCH ADVISORY COMMITTEE.**

2 Section 44508(a)(1) of title 49, United States Code,
3 is amended—

4 (1) by striking "and" at the end of subpara-
5 graph (B);

6 (2) by striking the period at the end of sub-
7 paragraph (C) and inserting in lieu thereof "; and";
8 and

9 (3) by inserting after subparagraph (C) the fol-
10 lowing new subparagraph:

11 "(D) annually review the allocation made by the
12 Administrator of the amounts authorized by section
13 48102(a) of this title among the major categories of
14 research and development activities carried out by
15 the Administration and provide advice and rec-
16 ommendations to the Administrator on whether such
17 allocation is appropriate to meet the needs and ob-
18 jectives identified under subparagraph (A).".

19 **SEC. 805. NATIONAL AVIATION RESEARCH PLAN.**

20 Section 44501(c) of title 49, United States Code, is
21 amended—

22 (1) in paragraph (2)(A) by striking "15-year"
23 and inserting in lieu thereof "5-year";

24 (2) by amending subparagraph (B) to read as
25 follows:

26 "(B) The plan shall—

1 "(i) provide estimates by year of the schedule,
2 cost, and work force levels for each active and
3 planned major research and development project
4 under sections 40119, 44504, 44505, 44507, 44509,
5 44511–44513, and 44912 of this title, including ac-
6 tivities carried out under cooperative agreements
7 with other Federal departments and agencies;
8 "(ii) specify the goals and the priorities for allo-
9 cation of resources among the major categories of
10 research and development activities, including the
11 rationale for the priorities identified;
12 "(iii) identify the allocation of resources among
13 long-term research, near-term research, and develop-
14 ment activities; and
15 "(iv) highlight the research and development
16 activities that address specific recommendations of
17 the research advisory committee established under
18 section 44508 of this title, and document the rec-
19 ommendations of the committee that are not accept-
20 ed, specifying the reasons for nonacceptance."; and
21 (3) in paragraph (3) by inserting ", including
22 a description of the dissemination to the private sec-
23 tor of research results and a description of any new
24 technologies developed" after "during the prior fiscal
25 year".

TITLE IX—PERSONNEL

SEC. 901. PERSONNEL.

(a) FEDERAL LABORATORY PERSONNEL.—For purposes of section 1342 of title 31, United States Code, employees at Federal laboratories performing activities for which funding is provided under this Act shall be deemed to be performing services relating to emergencies involving the safety of human life or the protection of property.

(b) DEFINITION.—For purposes of this section, the term "Federal laboratories" has the meaning given such term in section 4(6) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703(6)).

The CHAIRMAN. The gentleman is recognized for five minutes.

Mr. BROWN. Thank you, Mr. Chairman. Mr. Chairman, when we received the Committee print of the Omnibus Civilian Science Authorization Act of 1996 and various charts describing the impact of that bill, I was dismayed.

The bill made slight adjustments to the funding levels in H.R. 2405, the Omnibus Civilian Science Act of 1995, which is still pending in the Senate, adding about $90 million to the programs contained in the bill, excluding the Department of Energy. However, the Committee print actually is a cut of about $1.039 billion from the estimated funding for our programs for the current fiscal year.

I was also a little confused at the absence of any updated funding numbers for the Department of Energy and the absence of any funding at all for the external programs at the National Institute of Standards and Technology, NIST. We were told that the DOE authorization levels could be ascertained from a Floor amendment offered by Mr. Walker last year, a proposal adopted by the House without any public hearings and little public debate.

There was a Republican staff chart that detailed the numbers behind last year's funding levels, a chart that has since disappeared from the package given to members but which I included in the markup record earlier.

Finally, there were a number of arbitrary, in my opinion, misdirected policies contained in the Committee print. Many of these provisions were also in last year's bill.

And, I objected to them at that time, as well—cuts to Mission to Planet Earth, bans on environmental research, arbitrary cuts to personnel accounts at the National Science Foundation and at the National Aeronautics and Space Administration, cuts to the ocean programs at the National Oceanographic and Atmospheric Administration, programs not even within the Committee's jurisdiction in this case, programs that were the focus of legislation on the Floor yesterday. All of this and more is contained in the Committee print.

When compared to the President's proposals for these research and development programs under our jurisdiction, this bill is about $206 billion less in aggregate. And, I would remind my colleagues that these figures are part of a budget that will balance by the year 2002.

So, the President's budget offers improved R&D funding in the context of an overall balanced budget based upon a sound policy process.

For a time, the members on this side thought about a strategy involving a set of amendments that would make fiscal policies improvements. We have concluded that the President's budget provides all the sensible policy we need.

We have also concluded that the Committee print is unsalvageable and that it needs complete replacement by a comprehensive substitute. And, therefore, I am offering such a substitute that embodies the President's Fiscal Year 1997 proposal for the programs under this Committee's jurisdiction.

And, Mr. Chairman, I ask unanimous consent to put the rest of my statement in defense of the substitute in the record at this point.

[The prepared statement of Mr. Brown follows:]

STATEMENT OF

CONGRESSMAN GEORGE E. BROWN, JR.

When we received the committee print of the Omnibus Civilian Science Authorization Act of 1996, and various charts describing the impact of that bill, I was dismayed. The bill made slight adjustments to the funding levels in HR. 2405, the "Omnibus Civilian Science Act of 1995," which is still pending in the Senate, adding about $90 million to the programs contained in the bill, excluding the Department of Energy. However, the committee print actually is a cut of about $1.039 billion from the estimated funding for our programs for the current fiscal year.

I was also a little confused at the absence of any updated funding numbers for the Department of Energy (DOE) and the absence of any funding at all for the external programs at the National Institute of Standards and Technology (NIST). We were told that the DOE authorization levels could be ascertained from a Floor amendment offered by Mr. Walker last year, a proposal adopted by the House without any public hearings and little public debate. There was a Republican staff chart that detailed the numbers behind last year's funding levels, a chart that has since disappeared from the package given to members, but which I included in the markup record earlier.

Finally, there were a number of arbitrary and, in my opinion, misdirected policies contained in the committee print. Many of these provisions were also in last year's bill and I objected to them at that time as well. Cuts to the Mission to Planet Earth program, bans on environmental research, arbitrary cuts to personnel accounts at the National Science Foundation and at the National Aeronautics and Space Administration, cuts to the oceans programs at the National Oceanographic and Atmospheric Administration (NOAA), programs not even within this committee's jurisdiction, programs that were the focus of legislation on the Floor yesterday—all of this and more is contained in the committee print.

When compared to the President's proposal for these research and development (R&D) programs under our jurisdiction, this bill is about $2.06 billion less in aggregate. And I would remind my colleagues that these figures are part of a budget that will balance by the year 2002. So, the President's budget offers improved R&D funding in the context of an overall balanced budget based upon a sound policy process.

For a time, the Members on this side of the aisle thought about a strategy involving a set of amendments that would make fiscal and policy sense and improve the legislation before us today. We have concluded that the President's budget provides all of the sensible policy we need. We have also concluded that the committee print is unsalvageable and that it needs complete replacement by a comprehensive substitute that fixes all of this bill's shortcomings. Therefore, I am offering a substitute amendment that embodies the President's fiscal year 1997 proposal for the programs under this Committee's jurisdiction.

The fiscal situation is fairly well described in the charts that the Chairman has passed out, and the DOE chart I introduced into the record earlier. The funding levels in this substitute are those indicated on the charts as the President's request. The total for these programs comes to $25.77 billion for FY'97, versus the total for the Chairman's mark of $23.71, if you include the phantom DOE numbers from last year.

What this substitute does is also correct a number of policy problems with the Chairman's bill. If you don't like the provision eliminating a directorate at the National Science Foundation, a proposal that has yet to have any support from a single witness in two years, this substitute erases that provision. If you have doubts about the jihad that is being waged against the Mission to Planet Earth Program at NASA, a push that runs counter to the best scientific thinking that the Chairman has requested the National Academy of Sciences to assemble, this substitute returns this program to regular order. If you have doubts about massive layoffs at NASA centers that will be caused by the Chairman's cuts to the salaries and expenses line, cuts that did not receive any testimony, you should vote for this substitute.

Continuing in this vein through the bill, I would say that if anyone here voted for the Coastal Zone Management Act yesterday, they should be concerned that the Chairman's bill in Title IV virtually eliminates the program that implements that Act, the Ocean and Coastal Management program at NOAA. If you want to make your vote yesterday more than mere environmental showmanship, you should vote for this substitute that funds this program at a meaningful level. If you want to correct the shortsighted cuts to the local weather warnings and forecasts, cuts that will leave many localities vulnerable to severe storm conditions, you should support

our substitute. If you don't like the specific bans on environmental research included in Title V by various special interests, this substitute eliminates them.

Finally, if you want to have a full, public debate on funding for DOE, if you want a true, comprehensive science authorization bill, you will vote for this substitute. Last year, Mr. Walker said, "Combining these authorization bills under a single umbrella provides Congress with a clear means of considering civilian R&D in its entirety and provides an excellent forum for setting research priorities." This year, Mr. Walker has abandoned this approach in his near-omnibus bill. To leave out nearly $3.5 billion in research at DOE, is more than an oversight. Just as we authorized NSF for two years last year and are including it in this bill, we should include DOE.

There are many, many more problems and failings in the Chairman's bill that this substitute will correct. The fact that we don't know is the inevitable result of not having this bill made public prior to Monday. On the other hand, the substitute I am proposing has been public since the President released it five weeks ago and its effects have been well-debated. I would urge my colleagues to support this substitute.

The CHAIRMAN. Without objection.

Mr. SCHIFF. Mr. Chairman.

The CHAIRMAN. The gentleman from New Mexico.

Mr. SCHIFF. Mr. Chairman, since we are entertaining a substitute in Title I, which at least is under the jurisdiction of my subcommittee, I wonder if the Ranking Member would yield to just a couple of questions about his substitute?

Mr. BROWN. I have already yielded my time, but I would be——

Mr. SCHIFF. Well, on my time, on my time.

The CHAIRMAN. I have recognized the gentleman.

Mr. BROWN. On his time, I would certainly be glad to do so.

Mr. SCHIFF. All right. I have two questions that I want to respectfully put about the substitute and specifically about the President's budget.

The first question is. When the President submitted his most recent budget, there were actually two budgets in the document. There was one overall budget that was scored by the Congressional Budget Office, and there was another budget that was put together by the Office of Management and Budget.

And, I would like to know if the—since the gentleman is offering the President's figures, I would like to know if we are getting the President's figures from out of the overall CBO scored budget or is it out of the OMB budget?

Mr. BROWN. I am informed by the staff that both budgets are the same in FY 1997. The difference occurs in the outyears.

Mr. SCHIFF. All right. So, both budgets are the same for FY 1997?

Mr. BROWN. Correct.

Mr. SCHIFF. All right. The difference is in the outyears?

Mr. BROWN. Yes.

Mr. SCHIFF. And, then I would like to ask. Is the gentleman providing the outyear figures in his amendment?

Are we—because the Congress and the President have agreed upon a seven year balanced budget approach. And, it seems to me that if we are going to adopt the President's first year budget, then we ought to be also talking about the seventh—the President's seventh year.

Mr. BROWN. Would the gentleman yield?

Mr. SCHIFF. I yield to Mr. Brown.

Mr. BROWN. No, my substitute does not contain the outyear numbers.

Mr. SCHIFF. All right.

Mr. BROWN. It's not necessary or required, since the underlying bill does not contain the outyear numbers. I would point out that I don't like the outyear numbers for either the President or the Republicans, because they represent, in my mind, too substantial a cut for the R&D funding.

Mr. SCHIFF. Well, the gentleman answered my questions. I thank him very much.

And, I yield back my time.

Mr. CRAMER. Mr. Chairman, I would like to be heard on behalf of the substitute.

The CHAIRMAN. The gentleman is recognized.

Mr. CRAMER. And, as the Ranking Member of the Basic Research Committee, I am going to—I want to make three points. The National Science Foundation is one of the three points that are included in Mr. Brown's substitute.

But, I want to start with NASA issues first, because the Committee's bill—and I want to remind my colleagues here, the Committee's bill cuts funding for NASA personnel by $81 million. And, I want to say, as a representative of the Marshal Space Flight Center, that over the years NASA has done everything it could to reassess where it is, to be a meaner, cleaner machine.

And, I think this cut, and particularly from personnel, is an alarming cut that will mean drastic consequences for NASA. This is not the time to do that, not when the agency under its current Administrator has come to grips and come before this Committee and postured himself regularly and listened to us and done the things that we wanted him to do.

We are going to push them over the edge if they have to take this $81 million cut.

Mr. SENSENBRENNER. Will the gentleman yield?

Mr. CRAMER. Let me make my points. And, then if I have time, I will be glad to yield.

And, I think in light of what we have seen happen to NASA, particularly with all the space centers and the Administrator trying to hold on to all those, we are simply not going to be able to keep NASA, with its current field centers, if we move them on this particular cut. So, let's don't push them over the edge.

I want to move to the NOAA budget. And, I want to remind the members that the certification issue for the National Weather Service's Modernization Plans, we took an amendment to the Floor after we failed in this Committee with an effort to try to hold on to that certification process but we, in fact, streamlined it.

We won that amendment on the Floor, but the Committee's bill goes back and does away with the certification process. We have dotted every "i" and crossed every "t," engaged conscientiously in the process and yet now, again, we are being deprived of this opportunity.

So, I want to tell the members. When you are voting on the Committee's bill, you are doing away with the certification process. And, you are putting many jurisdictions in this country, including mine and Mr. Wamp's, in great jeopardy.

Later, I will support Mr. Wamp's amendment that will again restore funding. We have worked together jointly between our two

districts in a model bipartisan way to try to come up with an approach after we went through the process of appealing us being left out of the National Weather Service's Modernization Plan, trying to get our own NEXRAD. And, we were finally included in that.

This Committee's bill would really cut the funding that would make that not possible. So, we need to come back to that at the end of this.

And, now I want to come back to the National Science Foundation. The National Science Foundation has also done marvelously in doing little with less.

It has had very little increases in personnel. However, the Committee's bill cuts the NSF's salaries and expenses account from $127 million to $120 million, which will result in staff cuts. We will not be rewarding an agency that has bent over backwards to work with this Committee.

So, I want to say that the substitute, in fact, rectifies the three issues that I brought up. And, I think that we should support the substitute.

Mr. SENSENBRENNER. Would the gentleman yield?

Mr. CRAMER. I would be happy to yield.

Mr. SENSENBRENNER. I would like to respond very briefly to your comments relative to the NASA personnel cut that is contained in this bill. As you know, without warning, the NASA Administrator posted a RIF at the NASA Headquarters of 700 people on Wednesday of last week.

Our Committee and our Subcommittee had no notice of that. We were handed a fax after it had been put up on the bulletin board down at the NASA Headquarters.

What the personnel cut represents is a part of the money that is saved by Mr. Goldin having this RIF at Headquarters two years ahead of schedule. And, if he wants to RIF the employees and he has decided to do that without consulting us, without coming to Congress first and two years ahead of his time line, it seems to me that we ought to save this money so that it does not end up getting reprogrammed into something else over at NASA.

We are just taking him up on his offer.

Mr. CRAMER. Well, reclaiming my time, if I have any time left, I just think that we need to be very careful at this point. We are sitting with an $81 million NASA personnel cut. They have already downsized by 2,000 employees.

And, I hope we are accomplishing what the Chairman of the Subcommittee says we are accomplishing. But, I'm afraid we are going to have new RIFs and NASA says we are going to have new RIFs as a consequence of this.

The CHAIRMAN. Mr. Weldon.

Mr. WELDON. I thank the Chairman and rise to strike the last word.

And, I just want to point out for the record, in our authorizing proposal here there has been a lot of talk about NASA cuts. But, if you really take the time to look at the numbers, most of the critical programs for NASA are fully funded at the President's request, such as the space station and the space shuttle program and the basic manned programs, in general.

Virtually all of the cuts they are talking about are coming out of the program, Mission to Planet Earth. And, that accounts for virtually the entire reductions that we are talking about.

And, we have reprogrammed some of those dollars into other NASA accounts, specifically the science budget, as was stated earlier by the Chairman. And, essentially, what we are talking about here is do we want to continue to protect a program that I believe has been protected by the Administration and has not been subject to the kind of detailed scrutiny, the faster, quicker, smarter approach.

And, I think it's wrong to continue to shield this program. And, indeed, I believe that much of what we are talking about here in this budget is really pretty mild.

I think we could probably save the American taxpayers substantially more money by redesigning this program. And, I think the Chairman of the Full Committee and, in particular, the Chairman of the Subcommittee should be commended for what they are doing here, because I think it is good work.

It is maintaining our key national interest. And, it is trying to be what I believe is responsible in dealing with the American taxpayers' dollars, which is subjecting the Mission to Planet Earth program to the same type of scrutiny that other NASA programs have been subjected to.

And, I yield back the balance of my time.

The CHAIRMAN. The gentleman yields back the balance of his time.

Ms. HARMAN. Mr. Chairman.

The CHAIRMAN. The gentle lady from California.

Ms. HARMAN. Mr. Chairman, I move to strike the last word and to express my support for the well-crafted substitute offered by the Ranking Member.

Mr. Brown's substitute offers a different vision of the federal government's role in research and development. It charts a course for government as partner with industry as we move into the 21st century. I think it's a much better vision for our future.

I would like to focus on one key difference between the Brown substitute and the Committee's bill, the treatment of NASA's Mission to Planet Earth program. Unlike the Brown substitute, which funds the program at the Administration's requested level, the Committee's bill drastically slashes Mission to Planet Earth by $374 million in Fiscal Year 1997.

These cuts fly counter to the National Research Council's comprehensive review of Mission to Planet Earth and the U.S. Global Change Research Program, a review requested by the Chairman himself. The review was clear.

The science underlying Mission to Planet Earth is fundamentally sound. And, I would say to Mr. Weldon that Mission to Planet Earth has been subject to the same review as other programs.

It was fundamentally sound. "PM-I and CEM-I should be implemented without delay," said the study.

Just last month, Dr. Ed Frieman, who chaired the study, testified before this Committee that postponing PM and CEM would cause delay and increase cost. Unfortunately, Chairman Walker did

not like the study's recommendations and has apparently discarded them.

According to Committee charts, cuts to the program are aimed directly at cancelling both PM-I and CEM-I missions. While the NRC study stated that the U.S. Global Change Research Program requires an adequate and stable level of funding, the Committee bill cuts Mission to Planet Earth, as I said, by nearly 30 percent from the Administration's budget request.

Fortunately, this is only the beginning of the road for Mission to Planet Earth in Fiscal Year 1997. Several other committees continue to express strong bipartisan support for this worthy endeavor. And, I hope that these committees take the advice of the study commissioned by Chairman Walker and stand up for this key program.

I urge the Committee to adopt the Brown substitute. And, I yield back my time.

Mr. BROWN. Would the gentle lady yield?

Ms. HARMAN. Oh, I would be happy to yield to Mr. Brown.

Mr. BROWN. I appreciate the gentle lady's statement. And, I concur fully in what she said.

I would like to point out that we have a basic disagreement here over what constitutes science. The National Academy of Sciences, which should be given some weight, I think, considers Mission to Planet Earth to be a science program including much valuable basic research.

And, that's despite the fact that it has been criticized by some members of this Committee, who I think proudly admit that they made the statement that it's a liberal claptrap because it assumes that there is a possibility of global warming.

Now, the Chairman, Mr. Walker, extrapolating from the fact that the program has in its title the word, "Mission," has described it as not basic research but mission oriented, applied research. He makes no similar criteria when he talks about the NOAA programs, which are all listed as basic research, although NOAA calls them applied research.

If these charts had been subjected to peer review and some bipartisan cooperation, we could have worked out these minor differences about the definition of basic and applied research.

Mission to Planet Earth is basic research. It should be included in NASA's science programs.

But, because the Chairman and the Subcommittee Chairman don't like it for political reasons, they arbitrarily classify it as not basic research and proceed to cut it on those grounds.

I appreciate the gentle lady bringing that out.

Ms. HARMAN. Thank you. I yield back, Mr. Chairman.

Mr. WAMP. Mr. Chairman.

The CHAIRMAN. Mr. Wamp.

Mr. WAMP. I have a question—Mr. Chairman, thank you for the recognition—of the Ranking Member, Mr. Brown, if he would be so kind. Just a point of clarification.

Your substitute amendment, does it include the DOE title placing it back in this bill?

Mr. BROWN. If the gentleman will yield——

Mr. WAMP. Yes, sir.

Mr. BROWN [continuing]. —I am happy to tell him that it does include the DOE title back in the bill. And, we think that it's appropriate to do so, despite the fact that the Chairman claims that there is a two year authorization passed last year. That two year authorization never went into effect.

And, a similar two year authorization for the National Science Foundation apparently didn't occur to him as eliminating the need for a similar authorization in this bill, because NASA is in the bill—or NSF is in the bill despite the fact that it had a two year authorization last year.

The answer to your question is yes.

Mr. WAMP. Reclaiming my time, sir. And, also, then, your request is for the President's level of funding in the DOE title of this bill?

Mr. BROWN. That is correct.

Mr. WAMP. Okay. If I could, Mr. Chairman, several days ago, it's well known at least on this floor of the Rayburn Office Building, I expressed my disagreement, strong disagreement, with Chairman Walker on funding levels in the DOE portion of this bill, particularly on renewable energy and energy conservation accounts that his priorities and my priorities are obviously somewhat different on.

The DOE portion of this bill was removed. And, I thought an agreement was reached that that would go back to the Subcommittee, the Energy and Environment Subcommittee, on which I serve to take up the energy portion of this bill, which I think is a step in the right direction.

And, certainly I was looking forward today to addressing all the other titles in this bill and not the DOE titles. But, I must say, as we are approaching this vote, that the President's request is unreasonable, not reasonable, on all of the increases across the board on these accounts.

And, I say that with an energy facility in my district. I have seen our facility accommodate some reasonable reductions, tightening of our belt, as we approach a balanced budget.

I thought that Chairman Walker's reductions were going too far. And, I made myself loud and clear last week.

But, I think that Mr. Brown's efforts to fund and authorize the President's request is also not reasonable. So, as is with many things around here, I respect both of you gentlemen very much, but if we are looking at this in a bipartisan way, as I've heard several times this morning, something closer to level funding, something closer to small reductions, is a bipartisan compromise.

If the Ranking Member's intention is you only get one vote from us and it's a vote on full funding at the President's level and if our Chairman's position is you only get one vote—and I'm not saying it is; I'm saying if it is that you only get one vote—and it's our reductions or nothing else, then there is no spirit of cooperation or compromise in a bipartisan way. I'm looking for that.

Something closer to level funding makes a lot more sense to me in a climate where we all recognize, those of us who are serious about balancing the budget, that it can and must be done. And, I cannot support full requests.

Let's come together somewhere in the middle if we are going to take up the energy section, the energy title, of this bill. And, I yield back the balance of my time.

The CHAIRMAN. Would the gentleman yield to me?

Mr. WAMP. I would be happy to yield to you, Mr. Walker.

The CHAIRMAN. The gentleman did raise concerns about some of the cuts that we had made in DOE. And, a number of other people did along the way, too.

That's the reason why we decided to take it into the Subcommittee. We do have an authorization from which we can work with the appropriators. But, it appears as though this is something that can be worked out.

The fact is that what the gentleman wants to do is not shared by some of his colleagues. They have ideas for pumping up other places and so on.

And, that's the kind of thing that can be deliberated at the Subcommittee level now. And, you know, we think that's the reason for doing it.

I mean, it is kind of interesting here that earlier today everybody was arguing that all of this ought to go to the Subcommittee, but now when the Minority comes in with their substitute they decide to put in their substitute, you know, blind an authorization for something that we have determined would appropriately be taken to the Subcommittee. So, we do have a kind of interesting dialogue over some of these issues.

No one is showing, including probably the Chairman, very much consistency in all of this. And, what we have got to do is work it out and work it out in the best interest of getting the right policies along the way.

Mr. WAMP. I will yield back the balance of my time.

Mr. ROEMER. Mr. Chairman.

The CHAIRMAN. The gentleman yields back. The gentleman from Indiana.

Mr. ROEMER. Thank you, Mr. Chairman. Before trying to follow up on the gentleman from Tennessee's comments, which I think are very important in terms of trying to formulate a bipartisan bill coming out of this Committee, let me first say that I want to speak strongly in favor of Mr. Brown's substitute.

I think Mr. Brown's substitute encompasses partnerships between our government and our businesses. It encompasses an environmental approach by fairly funding solar and renewable and energy conservation and environmental research. And, thirdly, it promotes new technology.

For those reasons, I will be strongly in favor of Mr. Brown's substitute.

But, let me tell you. I would like very much to be able to work with somebody like Mr. Wamp from Tennessee who wants to do something about the deficit, as I do, who wants to see new ideas promoted in technology and in research, as I do. But, it is very difficult to promote some kind of bipartisanship when the key piece of the puzzle that would bring us together, the DOE portion of this, is going to be brought up two months from now or three months from now or three weeks from now.

DOE is not part of this bill. And, certainly what we've seen on DOE would cause a number of us to be very concerned.

Given last year's funding levels in the solar and renewable and the energy conservation and given the document that we did see last week that had some of the recommendations from the Chairman on these levels, we were seeing a 48 percent cut in solar and renewable, a 58 percent cut from the President's recommendations in energy conservation. And, certainly these levels were drastically down in last year's budget.

So, we are very, very concerned that we cannot bring together a reasonable and logical and fair bipartisan agreement if the DOE portion of this bill is just neglected or left out until some further date.

Now, when I asked this question in my opening remarks, I think Mr. Sensenbrenner said, "Well, Mr. Brown, brought a bill directly from Subcommittee to Full Committee." Certainly, we heard so many times from the Republican side that that was wrong when they were in the Minority, yet that's the justification now.

I think that the Subcommittee should be involved in this process. That's not a partisan remark on my part. That's us wanting to do our jobs as Subcommittee members.

I am not trying to degrade anybody on this Committee by saying that.

Mr. BROWN. Would the gentleman yield briefly?

Mr. ROEMER. I would be happy to yield to Mr. Brown.

Mr. BROWN. I thank the gentleman for his remarks, with which I largely concur. I certainly want to be as bipartisan as possible in this operation.

And, I remind the Committee that last year, most of the Democrats were neither Republican or Democratic in the sense of going with the President, but we went with the—what's the name of that group that—the Blue Dogs, the coalition, in a budget which I thought was better than either. This year, we don't have that alternative.

Both budgets presented are in balance at the end of seven years. And, the President's, in my opinion, is somewhat better for 1997.

I would also like to ask the Chairman a question that in his offer to have the Subcommittee consider the energy bill, which I appreciate, if he has in mind any further action or if he proposes to take the same action that he did with regard to the Advanced Technology Program and the Manufacturing Extension in the technology bill last year, which he let the Subcommittee mark up but then never saw any further action on it in the Full Committee.

Mr. ROEMER. Mr. Brown, before I yield back the rest of my time for the Chairman to answer the question, let me just conclude by saying that again I would very much like to work, as I have attempted to work with my Subcommittee Chairman, with Mr. Rohrabacher on a bipartisan solution to this problem. I voted for the Blue Dog proposal. I worked with Mr. Tanner and others to put that proposal together.

I will be offering an amendment later on in the process to cut the space station as a way to save $2 billion. I have proposed putting some money back in for energy conservation, for solar and renewable, for environmental research.

But, I think the net difference between my amendment to cut the space station and what I put in is about $1 billion in deficit reduction. So, I am not one to just throw money at programs and try to increase the deficit.

As a matter of fact, when you look at the two proposals that I would make, you would have $1 billion in deficit reduction. With that, I yield back the balance of my time.

Mr. BROWN. Mr. Chairman.

Mr. SCHIFF. Mr. Chairman.

The CHAIRMAN. The time of the gentleman has expired. The gentleman from New Mexico.

Mr. SCHIFF. I will be very brief, Mr. Chairman. I am going to vote against Mr. Brown's amendment.

Just very briefly, I would like to support higher funding figures in a number of ways, but I think money just can't fall from the sky. And, the President proposes higher spending next year. That is true, but it's higher spending next year accompanied by a steeper decline and even below congressional proposals in the sixth and seventh years.

And, I think that in voting for a budget and the fact that both the President and the Congress have agreed upon a seven year time frame that we have to be considering all seven years. And, for that reason, I think the President's budget is unrealistic in the long run.

Thank you, Mr. Chairman.

Mr. HALL. Mr. Chairman.

Ms. JACKSON-LEE. Mr. Chairman.

The CHAIRMAN. The gentleman from Texas.

Mr. HALL. Mr. Chairman, I would like to discuss the NASA authorization title of the Brown substitute and why I support it. And, first, I will say that I will be bipartisan with this Committee as we all work together hopefully in a little bit to kill Mr. Roemer's amendment to the—that eliminates the space station. You can count on my support at that time.

[Laughter.]

Mr. HALL. I would just——

The CHAIRMAN. Real bipartisanship here will——

Mr. HALL. Yes.

The CHAIRMAN [continuing]. —emerge. Is that what the gentleman is saying?

Mr. HALL. Yes.

The CHAIRMAN. All right.

Mr. HALL. No whining.

[Laughter.]

Mr. HALL. First, the substitute amendment funds NASA at the level that the President requests. Now, as a Blue Dog—I don't really like that name. I like the Coalition a little better.

But, as a member of that group and as a member of Congress, I——

Mr. TANNER. We are used to being called animals, Ralph.

Mr. HALL. Right.

[Laughter.]

Mr. HALL. I probably supported the President less than some of you over on that side have. But, this time, I think he's right. And, when I think he's right, I have to give him his due.

I think that $300 million higher than the funding contained in the Walker bill and a level that will provide funding for all of NASA's critical programs is very important in looking back at the cuts we have already made. I also like it because it's a fiscally prudent funding request, since it essentially—I think it freezes NASA's funding at the FY 1996 appropriations conference level.

Next, the substitute amendment provides full funding for the space station and for the associated biomedical research. You have treated biomedical research very fairly, but so does the Brown amendment. And, I think these are very important for the nation.

Third. The substitute amendment maintains a balanced space program. I think the concern with the outyear funding also is a concern of mine.

But, the Chairman's bill does not provide any outyear funding for science. Instead, it fixes a nonexistent problem in 1997 at the expense of other worthy NASA programs.

And, I would just conclude in saying that I'm sure most of you, including the Chairman and the Ranking Members, have this memo, dated April 23, 1996. It was sent to the House Science Committee Staff, Shana Dale and Bill Smith. And, I know they distributed it.

It alludes to the reductions of research and program management institutional support and so on. And, it goes on and addresses $81.5 million reduction in salaries and expenses at these areas, the $5.5 in travel and the $34 million reduction in research operations support accounts.

I would say to all of you who represent these areas that you had better look very carefully at the Brown substitute as you represent those that sent you here to represent them, because all of these cuts don't come from science. They come from the Kennedy Space Center. And, they come from that area.

They come from Johnson. And, they come from Marshall. So, I think—and, that's signed by Mr. Peterson, who is the Comptroller down there. And, it's typewritten pages that I think you ought to read before you vote on this.

I just urge you to consider the Brown substitute. And, Mr. Chairman, with that, I yield back the balance of my time.

Ms. JACKSON-LEE. Mr. Chairman.

Ms. LOFGREN. Mr. Chairman.

The CHAIRMAN. The gentle lady from California.

Ms. LOFGREN. Mr. Chairman, I would move to strike the last word.

And, I would like to speak in favor of the Brown substitute. There are many things that I think are preferable in the bill, but in particular I wanted to raise the issue of the Advanced Technology Program.

As all of us in this room know, there have been spirited debate on this subject over the last 16 months. But, I just wanted to share with the Committee some of the feedback that I have received not only from businesses that have participated in the program but I think more particularly businesses that have not participated in

the program and urging very strongly that we not retrench from our investment in that area.

And, I will give you an example. About 10 days ago, I sat down with the management team at one of the largest semiconductor firms in the United States that is a major player in our success in creating a favorable balance of trade out of Silicon Valley that helps the entire United States.

This firm indicated to me that they have never received a grant. I think at one time they did apply. They didn't receive it, which is fine with them.

But, what they are—the point they have made to me is that the innovations that are being spurred with a rather modest investment compared to the investment being made by industry has created new technology. And, even more importantly, it's not just the technology being created but being created in a fashion that is timely enough to be successful at competing with our international and global competitors.

As the Committee knows, we have a 10 to 13 month product life for many of these products. And, if we cannot keep up not only in terms of technology but also in terms of pace of the development of technology, we will not be competitive in our very rough global economy.

I would note that although there have been comments made in the past that somehow this is a politicized program, I think any fair reading of the facts would lead us to conclude that that is, in fact, not the case. I understand that there have been comments by the Cato Institute about patterns of contributions and that five companies—AT&T, Boeing, Chevron, Shell and Texaco—are cited as having made contributions and having also received ATP awards.

I think—and I certainly haven't examined all of the contributions, but to think that those firms are democratic firms I think would not bear examination in terms of their pattern of contribution. Clearly, Boeing has received a very modest grant, a relatively modest grant, of $2 million in the ATP program, but we know that they are a participant in the $6 billion contract for the space program.

So, if I were Boeing, I'm not sure that the ATP program would be more important to my business connection with the federal government than the space station. I think if we look at that, the allegations just don't hold water.

And, I would urge that we not turn our back on these pre-competitive research programs. I think it is a disaster for the economy of our country.

And, I think Mr. Brown's approach and the President's is sound and rational. And, that's about all I have to say.

I would, however, like to yield the balance of my time to Mr. Cramer.

Mr. CRAMER. I thank my friend from California. I have a question for the Ranking Member.

Mr. Brown, I had been concerned and had planned to offer an amendment speaking to the National Science Foundation that would accomplish two things. One, that would restore the salary

money that was cut back to the level, $127 million. It's my understanding your substitute takes care of that.

Mr. BROWN. That is correct.

Mr. CRAMER. The second point—the other part of my amendment would deal with the Committee's plan to eliminate one of NSF's Directorates before hearing from the agency about ways to accomplish greater administrative streamlining in, as I said, an already streamlined agency. In other words, we put in there a reorganization demand in the Committee's bill.

You take that out in your substitute; is that correct?

Mr. BROWN. That is correct. There have been no hearings or other action on this at any level.

And, I think it's inappropriate to remove a major directorate without some record behind it.

Mr. CRAMER. I just wanted to make sure that my two points were included in your substitute. I thank you.

Ms. JACKSON-LEE. Mr. Chairman.

Mr. CRAMER. And, I yield back.

Ms. JACKSON-LEE. Mr. Chairman.

The CHAIRMAN. The time of the gentleman has expired.

Mr. TANNER. Mr. Chairman.

The CHAIRMAN. The gentleman from Tennessee.

Mr. TANNER. Thank you very much, Mr. Chairman. I want to speak in support of the substitute for a slightly different reason, although Ms. Lofgren got almost to that point I wanted to make.

The amendment is not perfect at all. And, I know Mr. Brown understands that.

But, it does make a good and best effort, given our choices today, to develop a research and development policy that reflects reality. There was a report issued April the 10th by the Council on Competitiveness entitled, "Endless Frontier, Limited Resources," about the United States research and development policy.

Mr. Brown's amendment follows that to this extent. The central finding of this report—and I know everyone in this room knows who the Council on Competitiveness is and the membership that comprises that organization.

But, they found—their central finding was that R&D partnerships hold the key to meeting the challenge of transition our nation now faces. And, included in the definition of partnership cited in this document are the partnership for a new generation vehicle, the Advanced Technology Program and the creators of cooperative research and development agreements.

The Chairman's bill moves us in a direction that is exactly opposite from the Council's recommendations, in that it maintains the outdated distinction between basic and applied research. And, based on this erroneous distinction, eliminates funding for some of these partnerships.

On Page 7 of the document aforementioned, the following words appear. "The nation must redefine the outdated terms of reference that have driven the R&D policy debate. The old distinction between basic and applied research has proved politically unproductive and no longer reflects the realities of the innovation process."

Many members on that side of the aisle don't agree with the Chair's view of the role of the federal government in supporting re-

search and development. The bill before us today does not fund the Manufacturing Extension Partnership or the Advanced Technology Program.

I know for a fact that some of our members on that side of the aisle do. Case in point. The Technology Subcommittee unanimously reported an authorization bill last year for both of these programs. The Chair has never called that bill for consideration by the Committee.

The result. The Appropriations Committee has funded both of these programs without any guidance whatsoever from this Committee. As a matter of fact, there is presently a bipartisan letter, drafted by members of this Committee, to the Appropriations Committee asking for support of the MEP program.

Yet, our bill will be silent on that. And, to prove an ideological point, we are considering a bill that our own members of this Committee on both sides of the aisle consider irrelevant and incomplete.

If for no other reason, the Ranking member's position on this amendment should be supported, in my opinion. Thank you.

Mr. BROWN. Would the gentleman yield briefly?

Mr. TANNER. Yes, sir.

Mr. BROWN. I appreciate your quoting from the Council on Competitiveness views, which says the wave of the future is science and technology partnerships. I note that is signed by three very distinguished gentlemen.

Do you identify any of them as Democrats?

Mr. TANNER. Well, the Chairman of the report was President Bush's advisor to the National Science Foundation, I am told. There's not many Democrats in this report, Mr. Chairman.

Mr. BROWN. Fine.

Ms. JACKSON-LEE. Mr. Chairman.

The CHAIRMAN. The gentle lady from Texas.

Ms. JACKSON-LEE. I would like to strike the last word. Mr. Chairman, I certainly am rising to support very enthusiastically the Brown substitute.

Let me just allude to the $121 million that seems to be missing out of the Walker bill for NASA personnel. And, respecting the comments of my colleague from Wisconsin, coming from an area associated with the Johnson Space Center, I think it would be more appropriate in support of the Brown amendment to maintain those dollars inasmuch as we are not informed as to how those dollars will be needed in our various centers. And, I think it is wrongheaded to take that money out.

I also believe that in this week that we celebrate Earth Day, we should be extremely concerned about any legislation coming out of the Science Committee that does not have a focus on the environment.

I'm a little taken aback that the Walker bill cuts the Mission to Planet Earth program some 27 percent. In addition, if we are to be concerned about the environment, rather than passing legislation that is unfunded, such as the Coastal Zone Management and Fisheries Program cut 83 percent, that we should consider the Brown substitute which fairly provides 29 percent more for environmental research and development.

I had made this notation earlier in the day dealing with the question of the Environmental Protection Agency research and climate issues. And, of course, the Department of Energy research in solar and renewables.

If we were to look at this in a bipartisan manner, I would ask my Republican colleagues to consider the fairness of the Brown amendment as it relates to the environment, as it relates to maintaining the personnel dollars for NASA; and, of course, it does have the full funding of the space station. I know there are many who are concerned about that.

But, I think this is the more balanced effort that represents the fullness of the Science Committee, both from research, the environment and as well its recognition of the needs of NASA. And, I think this is an appropriate amendment to move forward.

And, I would rise in support of the Brown substitute.

The CHAIRMAN. The time of the gentle lady has expired.With this vote, I think we will break, go vote and also get some lunch.

And, so we will recess the Committee until 1 o'clock.

[Whereupon, a recess is taken at 12:07 p.m., Wednesday, April 24, 1996.]

AFTERNOON SESSION

The CHAIRMAN. Is there further discussion on the Brown substitute?

Mr. DOGGETT. Mr. Chairman?

The CHAIRMAN. The gentleman from Texas.

Mr. DOGGETT. Let's strike the last word in support of the Brown substitute. The process that we've watched today and in this Committee over the last year and several months is a very strange way to shape science policy.

The make no apologies, take no prisoners, a highly partisan take it or leave it approach seems to me to be the exact opposite of the kind thoughtful scientific inquiry that we expect of the people who will use the resources that are being authorized under this Act.

I have two particular areas of concern with reference to this measure. The first is with regard to the way that it treats environmental research. The Brown substitute assures that we will continue to have some environmental research. The approach that the proposed draft has seems to me to be yet another hatchet slash against environmental programs.

Indeed, I find considerable irony in the expressed interest this morning of some of my colleagues in assuring the indoor air quality in this room, which I certainly applaud, and the fact that the particular piece of legislation that Mr. Walker has proposed limits any research in indoor air quality for the rest of the country.

It seems to me that not only through that limitation section, but the level of research funding appropriated or authorized, that we will see less research done with the environment.

I realize that there are some people that don't want their good politics confused with good science, that don't want to be confused by the facts, but I think it's important to continue with a reasonable level of environmental research.

And in every one of the agencies that we are authorizing that have some environmental research component, the Brown sub-

stitute offers a far superior approach consistent with real concern for the environment and having good science to back up environmental concerns.

It is again ironic that we have to go literally to the ends of the earth on Earth Day to protect the environment in Antarctica to find some part of our environment worthy of the kind of commitment that I think the Brown substitute supports.

The second area of concern that I have that I think the Brown substitute addresses adequately is the whole concept of public/private partnerships to further job growth in this country.

By supporting only basic research, and then saying that other governments around the world and other industries around the world can take the benefits and the fruits of our basic research and commercialize them and sell them back to us, we assure a policy that has failed in the past.

I think that we are the only nation of any significance in the world today that is proposing a retreat in public/private partnership in government incentives for research and development policies and expenditures.

Certainly the Japanese, one of our principal competitors in so many areas of importance to this Committee, plan to double the public commitment to science and technology that they have by the year 2000.

China plans to increase dramatically its investment in research and development by the year 2000, targeting computer software, telecommunications, and pharmaceuticals.

Korea has considerably boosted its research and development areas, and yet this represents a retreat on our part viz a viz our trading partners.

The areas that have been subject to the strongest attack over the last year, and that are attacked again today, are those that involve public/private partnership with reference to technology.

I've seen some of the companies, some of the startups, some of the small companies that benefit through the technology programs of the Department of Commerce. I think that we would really be shortsighted in focusing our research commitment only at basic research, as important as that is, and forgetting the importance of applied research, taking the benefits of basic research to further economic development and job growth in this country.

Both with reference then to the environment and with reference to jobs and economic development, I believe that the approach taken by Mr. Brown is one that will benefit the country and I strongly support it.

And yield back the balance of my time.

The CHAIRMAN. Ms. Johnson?

Ms. JOHNSON. Thank you, Mr. Chairman.

My statement will be brief, and I'll file my statement in its entirety.

I just want to make a few remarks consistent with my stand on the technologies that we are ignoring.

My concern is whether or not we are setting the table for the foreign research to eat our lunch as a country. I think we're setting the stage to lose our competitive edge.

I believe strongly that we ought to have these public and private partnerships in our research. I know that's where we get our jobs. And at a time when we are very dead set on ending welfare and not really that interested in increasing the minimum wage, we've got to increase our skills and training and opportunities for people in this country to have jobs making wages that they can live on.

And I think the only way we can do that is to continue our commitment toward research.

When China plans to triple their R&D by the year 2000, targeting computers, software, telecommunications, pharmaceuticals, and infrastructure, and Korea has considerably boosted their R&D, and Japan and all the other European countries, it would seem to me that somehow it ought to strike us somewhere between our ears that we cannot afford not to continue some investment in this area.

Nonetheless, I wonder whether we are looking out of the same red blue glasses. I express my concern. Because of that, I strongly urge support for Mr. Brown's substitute, and hope that if, by chance—and hopefully this will not lose, it's just common sense—that it does, however, that, Mr. Chairman, we will not close the door on looking at these opportunities. This country cannot afford to lose them.

Thank you.

[The prepared statement of Ms. Johnson follows:]

STATEMENT OF

HON. EDDIE BERNICE JOHNSON

The bill before the Committee systematically attacks programs involving industry-government cooperation, leaving US industry unnecessarily vulnerable to foreign competition. This comes at a time when our major foreign competitors realize the benefits of such programs and are beefing up their sponsorship of industry-government cooperation as part of their overall research and development strategy. We need to open our eyes and begin funding the entire research and development spectrum or else we will be left in the dust. By supporting only basic research and leaving technology development to industry and other governments around the world we are setting the table for other nations to eat our lunch.

If you want to see something scary, look at the just-released study by Commerce's Office of Technology Policy, which looks internationally at government R&D policies and expenditures. We are the only nation in retreat. For example:

- European nations are accelerating investment in commercial technologies through national programs and through European Union (KU) joint R&D initiatives.
- Japan plans to double the government science and technology budget by the year 2000.
- China plans to triple its investment in R&D by 2000 targeting computers, software, telecommunications, pharmaceuticals, and infrastructure.
- Korea has considerably boosted its R&D efforts in key industrial areas and is actively acquiring foreign technology.

We on the other hand ignore the competition and attack the very programs that are giving our companies a chance.

- The Advanced Technology Program of the Department of Commerce is slated for elimination by the Walker bill, but fully funded by the Democratic substitute. Technologies funded by this program are high risk, yet high payoff, programs that are too risky and too long-term to be of interest to venture capitalists. This program systematically surveys industry for research topics that can revolutionize industries and then uses merit review to make sure that only highly capable companies are assisted by the program. Time to market is essential for these ideas; virtually every company assisted reported that it was able to move forward much faster because of ATP grants.

- The Manufacturing Extension Program is the one source of modernization advice that is available to the smallest of manufacturers. MEP Centers now serve the districts of a majority of our members. Literally thousands of companies which have been aided by this program have written to express their support for this program, which is the country's premiere program for assisting small businessmen who manufacture for a living. The Democratic budget would permit all existing centers to be fully funded. The Republican budget cuts this program off at the knees.
- The bill contains funding for a number of interagency initiatives which help US industry all of which are under attack. The Partnership for a New Generation of Vehicles is fully funded in the Democratic budget but eliminated in the Republican one. The bill also attacks our government's efforts to help US industry keep up in high performance computing and environmental technology.

Ms. RIVERS. Mr. Chairman?

The CHAIRMAN. Ms. Rivers?

Ms. RIVERS. Thank you, Mr. Chair.

I would like to speak in support of the substitute on a topic that has not yet arisen in our discussion today. And that is on the environment, that overall while the Walker bill provides about $792 million less in spending than the Brown substitute, which is about a four percent difference from the overall Administration's fiscal year '97 request, in fact the cuts in the area of environmental protection are much greater than that.

The cuts to the programs range from five percent in NOAA's global climate change to up to 92 percent in the EPA's global climate change research program.

The Brown substitute provides 29 percent more for environmental research and development than does the Chair's proposal.

The largest cut of all agencies included in the Walker bill is borne by Title V authorizing EPA 16 percent below the Administration's fiscal '97 request.

NASA's premier environmental science program, NTPE, received the most severe cut in the NASA budget, 27 percent below the Administration's '97 request.

NOAA's total budget is cut 15 percent below the Administration's request.

Not only are we cutting programs within our own venue, we're making proposals for programs outside of our jurisdiction, the Coastal Zone Management and the Fisheries programs are cut 83 percent and 21 percent, respectively.

I will have an amendment later on to discuss the Coastal Zone Management Program. But I will point out that yesterday, a reauthorization vote on the Floor passed 407 to 0. My list of people who supported this I think includes every member of this Committee on both sides.

And so it is amazing that we are today, only one day later, considering a proposal that would make cuts in that program.

I think there are three issues that are important to consider around the Brown substitute.

One is that there are no research bans, and I think that this is important. The Walker bill prohibits ORD from expending funds on the Climate Change Action Plan, the Environmental Technologies Initiative, and Indoor Air Resource.

Now there were many hearings around this issue and lots of testimony, but no one testified that we should cancel these programs. In fact, I personally asked speakers again and again, who were

skeptical of some of the conclusions that had been drawn by other scientists, did they think we should simply stop the research.

They all said, no, we need to continue the research. We need to find out what's happening here.

So the Brown proposal would restore the funding for the EPA's Global Climate Change Research Program.

It would also have contingent authorization of the Super Fund R&D program, and I think this is also important.

So as we talk about this and we move towards a vote, I would hope that if you are trying to be consistent with your earlier environmental votes, you will support this substitute.

If you are hoping to rehabilitate your earlier environment votes, this might be a good way.

And if you would just like to be consistent from yesterday and today, you might want to support the substitute.

Thank you.

The CHAIRMAN. The time of the gentlelady has expired.

Mr. OLVER. Mr. Chairman?

The CHAIRMAN. The gentleman from Massachusetts.

Mr. OLVER. Thank you, Mr. Chairman.

I would like to ask the Chairman one question.

The CHAIRMAN. Was the gentleman recognized on this particular substitute before?

Okay, I didn't think so. I'm being told that you were, and I wanted to check.

Mr. OLVER. I'm sure you would rather find that that were the case.

The CHAIRMAN. No. I'm just trying to be fair to everybody that wants to speak.

Mr. OLVER. Fine. Mr. Chairman, I now think you have been given a copy of your opening statement, and I would just like to clarify for myself again—maybe everybody else understands that, the piece which says:

"As Chairman of the Science Committee, I'm recommending that as Vice Chairman of the Budget Committee, I'm seeking a $430 million net adjustment in our overall fiscal year 1997 cap in regard to the subject matter of this bill."

Am I to understand that that 430 has to do only with the subject matter of this bill, or does it include also the energy portion of our jurisdiction?

The CHAIRMAN. Just only the subject matter of this bill.

Mr. OLVER. And could you tell me what the amount of increase or decrease you are asking that the caps might be for the energy?

The CHAIRMAN. About $350 million.

Mr. OLVER. Of an increase in that instance?

The CHAIRMAN. Yes. So the total would be 780.

Mr. OLVER. Thank you for the clarification.

The CHAIRMAN. That's what we passed last year.

Mr. OLVER. Thank you for the clarification.

Let me then indicate to you why I urge the support for the Brown substitute here.

It is because, in my view, the Brown substitute is the only coherent proposal that deals with all of our basic research programs throughout all of science, covering not only the Department of En-

ergy, but also NASA, NSF, EPA, and NOAA, as this bill does provide.

I would say, Mr. Chairman, that your proposal, your mark is a particularly struthian proposal when it deals with environmental science programs.

As the previous speaker on our side had pointed out, the environmental science programs are very severely treated in this proposal. In particular, both NOAA's Climate Change Program and the EPA's Climate Change Program both are cut, but of course the EPA's program is virtually eliminated, nearly eliminated, more than decimated in the process, and the substitute by the Ranking Member restores those cuts, as does it restore the cut in the overall environmental R&D by adding some 30 percent back to go back essentially to the President's proposal.

In fact, in this, the very largest cut in your change of priorities turns out to be of course the change in the EPA authorizing number, which is 16 percent, and which the Ranking Member's substitute also restores.

The move on the global warming seems to me to be particularly unfortunate.

We had testimony here earlier where we had a panel of scientists representing two sides of a science controversy, but some 95 percent of all scientists would generally agree that global warming is a serious problem and one that ought to be researched rather carefully.

Whereas there's a small group on the fringe of the established science field which takes more generally the position that global warming either doesn't exist, or if it does, it's not serious.

It's particularly a problem when you have large populations around this world in third world countries where urbanization and industrialization could end up resulting in energy use which is far greater than what is already used, far greater in just its increase than is already presently being used.

So I think that what we're going to end up with is a whole new proposal coming back from the energy bill at a not too distant time which will be a struthious proposal in its own right that I think means in its totality that the Brown substitute is a considerably more coherent program for our science, research and development needs.

And I would urge support for the Ranking Member's substitute.

The CHAIRMAN. Time of the gentleman has expired.

Does anyone else seek recognition?

[No response.]

The CHAIRMAN. If not, the Chair will close the debate.

There are a couple of points which should be made about the substitute.

First of all, it is a considerably higher spending amount. It's one of those things that used to be done in this Committee where we simply toted up everybody's wish list and put it all in, and came up with, in this case, $25.1 billion.

So this is one that not only kind of sets the budget proposal aside, it just kind of ignores the fact that there is a balanced budget process.

Now the explanation on that was that this is all being done within the President's budget, and we all know that the President's budget balances.

The problem is we had testimony in the Budget Committee the other day, indicating the President's budget doesn't balance when you use CBO numbers through the year 2002. It actually comes up with an $81 billion deficit.

If you in fact take the CBO numbers out to the year 2002, the science programs under the President's budget have to be cut about another 50 percent over and above the cuts already determined.

Which means for instance, in the case of NASA, that goes down to $11.6 billion under the President's budget, where we are higher than that.

Ms. RIVERS. Will the gentleman yield?

The CHAIRMAN. Let me make my statement. I've listened to all of you and I think that I should have my chance now to make my case.

By the year 2000, the fact is that the President's budget would take it down to about $9 billion, if you scored out according to real CBO.

Now I've also listened to the questions that arise about the environment and so on. I'm somewhat puzzled by a couple of things that are in the substitute.

For example, whereas we have an earthquake authorization proposal in our bill, there is none in the substitute. That strikes me as somewhat strange since that has been a rather bipartisan initiative, and yet it doesn't even exist in the substitute put forward by the minority.

I'm somewhat concerned about how the industrial policy science advocated by the minority side has an adverse impact on things which I think are important.

For example, NIST wants to build an Advance Metrology Lab, $45 million. We include that in our proposal. It doesn't even exist in the minority's proposal.

Now when you talk about competitiveness, the singlemost important thing we can do at NIST to assure competitiveness is to assure that we set the standards for the world, and we have the kind of technology that allows us to do that.

By ignoring that particular lab, what the minority is doing is setting us up for the fact that the rest of the world will set standards and we won't.

That will be more devastating to our competitiveness than any amount of billions of dollars that you could stick into a bunch of industrial policy science programs.

And so I would suggest that we have selected the right priorities in the bill that we put forward and that the minority has ignored some very important items.

Finally, with regard to the energy section of the bill, I say again, I think it's a little bit strange to have the minority arguing on one hand that none of this went through the subcommittee, but when we have one that's going to go through the subcommittee, then they argue that it ought not go through the subcommittee.

It does strike me as being a little bit of a dichotomy in the way they approach.

I would suggest to all members who want to try to maintain some semblance of fiscal sanity in what we do that the substitute simply spends too much, the priorities are not properly addressed, and that we ought to defeat the substitute.

With that, the Chair will put the question.

Those in favor of the substitute will say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed will say no.

[Chorus of nays.]

The CHAIRMAN. In the opinion of the Chair, the noes have it.

Mr. BROWN. Roll call, Mr. Chairman.

The CHAIRMAN. The gentleman from California requests a roll call.

The Clerk will call the roll.

The CLERK. Mr. Walker?

The CHAIRMAN. No.

The CLERK. Mr. Walker votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Boehlert?

Mr. BOEHLERT. No.

The CLERK. Mr. Boehlert votes no.

Mr. Fawell?

Mr. FAWELL. No.

The CLERK. Mr. Fawell votes no.

Mrs. Morella?

Mrs. MORELLA. No.

The CLERK. Mrs. Morella votes no.

Mr. Weldon of Pennsylvania?

Mr. CURT WELDON. No.

The CLERK. Mr. Weldon votes no.

Mr. Rohrabacher?

[No response.]

The CLERK. Mr. Schiff?

Mr. SCHIFF. No.

The CLERK. Mr. Schiff votes no.

Mr. Barton?

Mr. BARTON. No.

The CLERK. Mr. Barton votes no.

Mr. Calvert?

[No response.]

The CLERK. Mr. Baker?

Mr. BAKER. No.

The CLERK. Mr. Baker votes no.

Mr. Bartlett?

Mr. BARTLETT. No.

The CLERK. Mr. Bartlett votes no.

Mr. Ehlers?

Mr. EHLERS. No.

The CLERK. Mr. Ehlers votes no.

Mr. Wamp?

Mr. WAMP. No.

The CLERK. Mr. Wamp votes no.

Mr. Weldon of Florida?
Mr. Dave WELDON. No.
The CLERK. Mr. Weldon of Florida votes no.
Mr. Graham?
Mr. GRAHAM. No.
The CLERK. Mr. Graham votes no.
Mr. Salmon?
Mr. SALMON. No.
The CLERK. Mr. Salmon votes no.
Mr. Davis?
Mr. DAVIS. No.
The CLERK. Mr. Davis votes no.
Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no.
Mr. Gutknecht?
Mr. GUTKNECHT. No.
The CLERK. Mr. Gutknecht votes no.
Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no.
Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no.
Mr. Largent?
Mr. LARGENT. No.
The CLERK. Mr. Largent votes no.
Mr. Hilleary?
Mr. HILLEARY. No.
The CLERK. Mr. Hilleary votes no.
Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no.
Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no.
Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no.
Mr. Brown?
Mr. BROWN. Mr. Brown votes aye.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
Mr. VOLKMER. Aye.
The CLERK. Mr. Volkmer votes yes.
Mr. Hall?
Mr. HALL. Yes.
The CLERK. Mr. Hall votes yes.
Mr. Gordon?
Mr. GORDON. Aye.
The CLERK. Mr. Gordon votes yes.
Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?

Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes.
Mr. Roemer?
Mr. ROEMER. Aye.
The CLERK. Mr. Roemer votes yes.
Mr. Cramer?
Mr. CRAMER. Aye.
The CLERK. Mr. Cramer votes yes.
Mr. Barcia?
[No response.]
The CLERK. Mr. McHale?
Mr. MCHALE. Yes.
The CLERK. Mr. McHale votes yes.
Ms. Harman?
Ms. HARMAN. Yes.
The CLERK. Ms. Harman votes yes.
Ms. Johnson?
Ms. JOHNSON. Yes.
The CLERK. Ms. Johnson votes yes.
Mr. Minge?
[No response.]
The CLERK. Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes.
Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. Aye.
The CLERK. Ms. Rivers votes yes.
Ms. McCarthy?
Ms. MCCARTHY. Yes.
The CLERK. Ms. McCarthy votes yes.
Mr. Ward?
Mr. WARD. Yes.
The CLERK. Mr. Ward votes yes.
Ms. Lofgren?
Ms. LOFGREN. Yes.
The CLERK. Ms. Lofgren votes yes.
Mr. Doggett?
Mr. DOGGETT. Yes.
The CLERK. Mr. Doggett votes yes.
Mr. Doyle?
Mr. DOYLE. Yes.
The CLERK. Mr. Doyle votes yes.
Ms. Jackson Lee?
Ms. JACKSON LEE. Yes.
The CLERK. Ms. Jackson Lee votes yes.
Mr. Luther?
Mr. LUTHER. Yes.
The CLERK. Mr. Luther votes yes.
The CHAIRMAN. The members who have not been recorded.
How was Mr. Calvert recorded?
The CLERK. Mr. Calvert is not recorded.
Mr. CALVERT. Mr. Calvert votes no.

The CHAIRMAN. How is Mr. Rohrabacher recorded?
The CLERK. Mr. Rohrabacher is not recorded.
Mr. ROHRABACHER. Rohrabacher votes no.
The CHAIRMAN. How's Mr. Minge recorded?
The CLERK. Mr. Minge is not recorded.
Mr. MINGE. He votes yes.
The CHAIRMAN. How is Mr. Barcia recorded?
The CLERK. Mr. Barcia is not recorded.
Mr. BARCIA. I vote aye.
The CHAIRMAN. Are there additional members?
[No response.]
The CHAIRMAN. If not, the Clerk will report.
The CLERK. Mr. Chairman, the roll call vote is yes 20, no 27.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********************** ROLL CALL**

Subject: Amendment in nature of a Substitute to the Committee Print offered by Mr. Brown **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY				3	
2159	53515	Mr. Fawell, R-IL				4	
106	55341	Mrs. Morella, R-MD				5	
2452	52011	Mr. Curt Weldon, R-PA				6	
2338	52415	Mr. Rohrabacher, R-CA				27	
2404	56316	Mr. Schiff, R-NM				7	
2264	52002	Mr. Barton, R-TX				8	
1034	51986	Mr. Calvert, R-CA				26	
1724	51880	Mr. Baker, R-CA				9	
322	52721	Mr. Bartlett, R-MD				10	
1717	53831	Mr. Ehlers, R-MI				11	
423	53271	Mr. Wamp, R-TN				12	
216	53671	Mr. Dave Weldon, R-FL				13	
1429	55301	Mr. Graham, R-SC				14	
115	52635	Mr. Salmon, R-AZ				15	
415	51492	Mr. Davis, R-VA				16	
417	56565	Mr. Stockman, R-TX				17	
425	52472	Mr. Gutknecht, R-MN				18	
1216	53601	Mrs. Seastrand, R-CA				19	
1319	56216	Mr. Tiahrt, R-KS				20	
410	52211	Mr. Largent, R-OK				21	
114	56831	Mr. Hilleary, R-TN				22	
1114	52311	Mrs. Cubin, R-WY				23	
506	55792	Mr. Foley, R-FL				24	
509	51976	Mrs. Myrick, R-NC				25	
2300	56161	Mr. Brown, D-CA			1		
2409	52956	Mr. Volkmer, D-MO			2		
2236	56673	Mr. Hall, D-TX			3		
2201	54231	Mr. Gordon, D-TN			4		
2446	55261	Mr. Traficant, D-OH			–		
1127	54714	Mr. Tanner, D-TN			5		
407	53915	Mr. Roemer, D-IN			6		
236	54801	Mr. Cramer, D-AL			7		
1410	58171	Mr. Barcia, D-MI			21		
217	56411	Mr. McHale, D-PA			8		
325	58220	Ms. Harman, D-CA			9		
1123	58885	Ms. Johnson, D-TX			10		
1415	52331	Mr. Minge, D-MN			20		
1027	55335	Mr. Olver, D-MA			11		
1039	51313	Mr. Hastings, D-FI			–		
1116	56216	Ms. Rivers, D-MI			12		
1232	54535	Ms. McCarthy, D-MO			13		
1032	55401	Mr Ward, D-KY			14		
118	53072	Ms. Lofgren, D-CA			15		
126	54865	Mr. Doggett, D-TX			16		
1218	52135	Mr. Doyle, D-PA			17		
1520	53816	Ms. Jackson Lee, D-TX			18		
1419	52271	Mr. Luther, D-MN			19		
					21	27	

Attest: Patricia Stewart (Clerk)

The CHAIRMAN. The substitute is not agreed to.

The next amendment on the roster is Mr. Cramer.

Mr. CRAMER. Mr. Chairman, I have an amendment at the desk. I ask that the amendment be considered as read.

The CHAIRMAN. The gentleman has requested that the amendment be considered as read. It is included in the packet, without objection.

[Text of the amendment follows:]

AMENDMENTS TO THE COMMITTEE PRINT OFFERED BY MR. CRAMER

Page 6, line 25, strike "$120,000,000" and insert in lieu thereof "$129,100,000".

Page 7, lines 3 through 10, strike subsection (c).

Page 19, lines 3 through 13, amend section 130 to read as follows:

1 **SEC. 130. REORGANIZATION.**

2 (a) PLAN.—The Director shall carry out a review and
3 analysis of the organizational structure of the National
4 Science Foundation for the purpose of developing a plan
5 for reorganization that will result in reduced administra-
6 tive costs, while maintaining the quality and effectiveness
7 of the Foundation's programs. The plan shall include one
8 or more options for reorganization of the Foundation, and
9 one option shall be an organizational structure having
10 fewer than 7 directorates.

11 (b) REPORT.—By February 15, 1997, the Director
12 shall transmit to the Congress a report containing the plan
13 required by subsection (a). The report shall document the
14 advantages and disadvantages of each option included in
15 the plan, provide an estimate of cost savings for each op-
16 tion, and designate the Director's preferred option.

Amend the table of contents accordingly.

Mr. CRAMER. Mr. Chairman, during the discussion on the Brown substitute, I pointed out that I'm offering an amendment addressing NSF issues. My amendment would restore the funding for salaries of the NSF employees.

The Committee's bill cuts the NSF salaries and expenses account from $127 million to $120 million.

I would restore, through the amendment, the $127 million.

As well, the Committee's bill requires a reorganization, looks at the NSF Directorates. I'm concerned about the Committee's plan to eliminate one of the Directorates before hearing from the agency about ways to accomplish greater administrative streamlining in an already lean agency. So my amendment would require NSF to study its current operations and report to the Committee on ways to streamline including but not limited to the elimination of a Directorate.

I want to point out that NSF is one of the most efficient federal agencies. Less than four percent of its budget supports its own internal operations. In the past decades, its budget has tripled. The work load has doubled but the work force has remained constant so I think it's only fair that we restore the salary amendments and as well address the issue of the directorates, allow us to hear from NSF before we draw conclusions about the number of Directorates.

So I urge the Committee to support my amendment.

The CHAIRMAN. Does anybody else wish to be heard on the amendment?

[No response.]

The CHAIRMAN. If not, the Chair is prepared to close the debate.

The gentleman offers a very well thought out amendment but I have a couple of problems with it.

First of all, there are no offsets in this so that any money that you add back in for bureaucracy simply assures that the money gets taken out of basic research grants.

You know, if in fact we want to substitute bureaucrats for research, this is a good amendment. I don't think that we necessarily want to go down that route.

With regard to the overall situation at NSF, we have had discussions with NSF and while they would prefer to operate with seven Directorates, the fact is that what they've told us is that we give them the authority as we do in the bill to readjust the agency. They would be able to do that.

I would suggest, in these times, when we are cost cutting, that this is a place where we can get along with one less Directorate as determined by the NSF. And that we can in fact reduce bureaucracy in so doing.

You know, if in fact we are going to make the right kind of decisions fiscally, it seems to me that we've got to get rid of overhead and put the money into programs. That's what we think our bill does.

This amendment moves us in a different direction.

Mr. BROWN. Mr. Chairman?

The CHAIRMAN. I had asked before, I would say to the gentleman with regard to members speaking, the Chair would prefer to have a situation where the Chair is permitted his right to close the debate.

I will be happy to recognize the gentleman but I would hope in the past that the gentleman would——

Mr. BROWN. Mr. Chairman, at such time as you choose to proceed by the rules, I'll be glad to accede to that. The rules do not give you the authority to cut off debate merely by saying so.

The CHAIRMAN. No, I realize that. And that's the reason why I'm prepared to recognize anybody at any time.

Mr. BROWN. But you're not giving some special treatment to me. You are merely recognizing that I have a right to be heard.

The CHAIRMAN. That's right. And the Chair would have gladly recognized the gentleman earlier in the debate to make his point.

The Chair will recognize the gentleman right now. The gentleman doesn't need to get upset.

Mr. BROWN. I'm not upset.

The CHAIRMAN. But we're going to proceed here.

Mr. BROWN. I'm merely pointing out that the Chair tends to usurp the rules and make it look like he's conforming to the rules.

The CHAIRMAN. No, the Chair is simply trying to move the process in a way which I think is——

Mr. BROWN. I appreciate that, and if——

The CHAIRMAN. The Chair will recognize——

Mr. BROWN. The—on this side, son.

[Laughter.]

The CHAIRMAN. The Chair will recognize the gentleman from California.

VOICE. The gentleman's time has expired.

[Laughter.]

Mr. BROWN. I appreciate the fact that we haven't all lost our sense of humor in this debate. And I am trying to make a point, which is a legitimate point, that I am entitled to recognition and I will briefly speak in opposition to the position taken by the Chair.

And point out that in last year's debate, the Chair tried to indicate that we had a cap which, for the NSF specifically, which turned out to be several million dollars less than the appropriators actually appropriated. And since we haven't finished action on that bill yet that we authorized or attempted to authorize last year, the expectation now is that our authorization from last year will be about $90 million less than was actually appropriated for the current fiscal year.

Now what the Chair is trying to do in his bill, and in opposing my substitute, is to make it appear like this is the will of the lord, that we should be $90 million under what the appropriators have already approved for this year.

Now I object to that. I think it's particularly egregious that he attempts also to remove a Directorate to which he is philosophically opposed because it's the Directorate on the Social Sciences and he doesn't think that's legitimate science.

The CHAIRMAN. If the gentleman would yield. We have made no specification of any Directorate. We've left it up to the NSF. There is absolutely no specification. That is not the intent of the Chair.

Mr. BROWN. I hope the gentleman won't take me to be naive. I don't think there's any question about the Directorate. It is, I'm informed, specifically implied in the terms of the report language accompanying the bill.

But that is not really essential. The Chair has made it clear for some period of time, years as a matter of fact, that he doesn't like that Directorate and he would like to get it, either in this Committee or in the Budget Committee, and he works very diligently to do both.

Now I think that's his prerogative of course, and just as he's agreed that I have the prerogative to speak, I agree that he has the prerogative to object to the social science Directorate.

But I don't think that that's the policy that we should be following, and I don't think that we should be cutting into the heart of the NSF's activities in the way that his language does in the underlying bill.

And I'm therefore making that point, and asking support for this amendment which has been offered by my colleague.

Mr. CRAMER. Would the gentleman yield?

Mr. BROWN. I certainly yield to Mr. Cramer.

Mr. CRAMER. I would like to pose a question to the Chairman of the Committee.

By eliminating one of the NSF Directorates, we save money. Is there a calculation on the amount of money that would be saved by doing that?

The CHAIRMAN. Well we think that one of the reasons why we can reduce the amount of money that we're spending for bureaucracy is because that we'll have one less Directorate, yes.

Mr. CRAMER. But do we have a figure on that, or what bottom line——

The CHAIRMAN. I think that would depend upon the decisions made by NSF as to how they are going to eliminate the Directorate and how they're going to use it. I mean, we don't want to specify that in advance.

Mr. CRAMER. I yield back.

The CHAIRMAN. The Chair will put the question.

Those in favor of the amendment will say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed say no.

[Chorus of nays.]

The CHAIRMAN. In the opinion of the Chair, the noes have it.

Mr. CRAMER. Ask for a recorded vote, Mr. Chairman.

The CHAIRMAN. The gentleman requests a recorded vote.

The Clerk will call the roll.

The CLERK. Mr. Walker?

The CHAIRMAN. No.

The CLERK. Mr. Walker votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Boehlert?

Mr. BOEHLERT. No.

The CLERK. Mr. Boehlert votes no.

Mr. Fawell?

Mr. FAWELL. No.

The CLERK. Mr. Fawell votes no.

Mrs. Morella?

Mrs. MORELLA. No.

The CLERK. Mrs. Morella votes no.
Mr. Weldon of Pennsylvania?
[No response.]
The CLERK. Mr. Rohrabacher?
Mr. ROHRABACHER. No.
The CLERK. Mr. Rohrabacher votes no.
Mr. Schiff?
[No response.]
The CLERK. Mr. Barton?
Mr. BARTON. No.
The CLERK. Mr. Barton votes no.
Mr. Calvert?
[No response.]
The CLERK. Mr. Baker?
Mr. BAKER. No.
The CLERK. Mr. Baker votes no.
Mr. Bartlett?
Mr. BARTLETT. No.
The CLERK. Mr. Bartlett votes no.
Mr. Ehlers?
Mr. EHLERS. No.
The CLERK. Mr. Ehlers votes no.
Mr. Wamp?
Mr. WAMP. No.
The CLERK. Mr. Wamp votes no.
Mr. Weldon of Florida?
Mr. Dave WELDON. No.
The CLERK. Mr. Weldon votes no.
Mr. Graham?
Mr. GRAHAM. No.
The CLERK. Mr. Graham votes no.
Mr. Salmon?
[No response.]
The CLERK. Mr. Davis?
Mr. DAVIS. No.
The CLERK. Mr. Davis votes no.
Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no.
Mr. Gutknecht?
Mr. GUTKNECHT. No.
The CLERK. Mr. Gutknecht votes no.
Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no.
Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no.
Mr. Largent?
Mr. LARGENT. No.
The CLERK. Mr. Largent votes no.
Mr. Hilleary?
Mr. HILLEARY. No.
The CLERK. Mr. Hilleary votes no.

Mrs. Cubin?
[No response.]
The CLERK. Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no.
Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no.
Mr. Brown?
Mr. BROWN. Yes.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
[No response.]
The CLERK. Mr. Hall?
[No response.]
The CLERK. Mr. Gordon?
[No response.]
The CLERK. Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes.
The CLERK. Mr. Roemer?
Mr. ROEMER. Aye.
The CLERK. Mr. Roemer votes yes.
Mr. Cramer?
Mr. CRAMER. Yes.
The CLERK. Mr. Cramer votes yes.
Mr. Barcia?
[No response.]
The CLERK. Mr. McHale?
Mr. MCHALE. Yes.
The CLERK. Mr. McHale votes yes.
Ms. Harman?
Ms. HARMAN. Yes.
The CLERK. Ms. Harman votes yes.
Ms. Johnson?
Ms. JOHNSON. Yes.
The CLERK. Ms. Johnson votes yes.
Mr. Minge?
Mr. MINGE. Yes.
The CLERK. Mr. Minge votes yes.
Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes.
Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. Yes.
The CLERK. Ms. Rivers votes yes.
Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
Mr. WARD. Yes.

The CLERK. Mr. Ward votes yes.
Ms. Lofgren?
Ms. LOFGREN. Yes.
The CLERK. Ms. Lofgren votes yes.
Mr. Doggett?
Mr. DOGGETT. Yes.
The CLERK. Mr. Doggett votes yes.
Mr. Doyle?
Mr. DOYLE. Yes.
The CLERK. Mr. Doyle votes yes.
Ms. Jackson Lee?
Ms. JACKSON LEE. Aye.
The CLERK. Ms. Jackson Lee votes yes.
Mr. Luther?
Mr. LUTHER. Aye.
The CLERK. Mr. Luther votes yes.
The CHAIRMAN. Is there anyone who has not been recorded?
Mr. Salmon?
The CLERK. Mr. Salmon is not recorded.
Mr. SALMON. I vote no.
The CHAIRMAN. How is Mr. Hall recorded?
The CLERK. Mr. Hall is not recorded.
Mr. HALL. Vote aye.
Mr. CARTER. We thought you'd be influenced by being on this side.
[Laughter.]
The CHAIRMAN. Mr. Weldon?
The CLERK. Mr. Weldon is not recorded.
Mr. CURT WELDON. No.
The CHAIRMAN. Mr. Barcia?
Mr. BARCIA. Mr. Chairman, I'd like to vote aye on the Cramer amendment. Thank you.
Mr. VOLKMER. How am I recorded?
The CLERK. Mr. Volkmer is not recorded.
Mr. VOLKMER. Aye.
The CHAIRMAN. The Clerk will report.
The CLERK. Mr. Chairman, the roll call vote is yes 19, no 24.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********** ROLL CALL

Subject: Amendment by Mr. Cramer Date: 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY				3	
2159	53515	Mr. Fawell, R-IL				4	
106	55341	Mrs. Morella, R-MD				5	
2452	52011	Mr. Curt Weldon, R-PA				24	
2338	52415	Mr. Rohrabacher, R-CA				6	
2404	56316	Mr. Schiff, R-NM				–	
2264	52002	Mr. Barton, R-TX				7	
1034	51986	Mr. Calvert, R-CA				–	
1724	51880	Mr. Baker, R-CA				8	
322	52721	Mr. Bartlett, R-MD				9	
1717	53831	Mr. Ehlers, R-MI				10	
423	53271	Mr. Wamp, R-TN				11	
216	53671	Mr. Dave Weldon, R-FL				12	
1429	55301	Mr. Graham, R-SC				13	
115	52635	Mr. Salmon, R-AZ				23	
415	51492	Mr. Davis, R-VA				14	
417	56565	Mr. Stockman, R-TX				15	
425	52472	Mr. Gutknecht, R-MN				16	
1216	53601	Mrs. Seastrand, R-CA				17	
1319	56216	Mr. Tiahrt, R-KS				18	
410	52211	Mr. Largent, R-OK				19	
114	56831	Mr. Hilleary, R-TN				20	
1114	52311	Mrs. Cubin, R-WY				–	
506	55792	Mr. Foley, R-FL				21	
509	51976	Mrs. Myrick, R-NC				22	
2300	56161	Mr. Brown, D-CA			1		
2409	52956	Mr. Volkmer, D-MO			19		
2236	56673	Mr. Hall, D-TX			17		
2201	54231	Mr. Gordon, D-TN			–		
2446	55261	Mr. Traficant, D-OH			–		
1127	54714	Mr. Tanner, D-TN			2		
407	53915	Mr. Roemer, D-IN			3		
236	54801	Mr. Cramer, D-AL			4		
1410	58171	Mr. Barcia, D-MI			18		
217	56411	Mr. McHale, D-PA			5		
325	58220	Ms. Harman, D-CA			6		
1123	58885	Ms. Johnson, D-TX			7		
1415	52331	Mr. Minge, D-MN			8		
1027	55335	Mr. Olver, D-MA			9		
1039	51313	Mr. Hastings, D-FI			–		
1116	56216	Ms. Rivers, D-MI			10		
1232	54535	Ms. McCarthy, D-MO			–		
1032	55401	Mr. Ward, D-KY			11		
118	53072	Ms. Lofgren, D-CA			12		
126	54865	Mr. Doggett, D-TX			13		
1218	52135	Mr. Doyle, D-PA			14		
1520	53816	Ms. Jackson Lee, D-TX			15		
1419	52271	Mr. Luther, D-MN			16		
					19	24	

Attest: Patricia Schwartz (Clerk)

The CHAIRMAN. The amendment is not agreed to.

It is my understanding that the Clerk misspoke in terms of the vote of the previous one. I unanimous consent to the vote total on the Brown substitute be corrected in the record to 21 aye, 27 noes without objection.

The amendment by Mr. Cramer is not agreed to.

Mr. Barton?

Mr. BARTON. Mr. Chairman, I have an amendment at the desk. I ask unanimous consent that it be considered as read and distributed to the members.

[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT OFFERED BY MR. BARTON OF TEXAS

Page 19, after line 13, insert the following new section:

1 **SEC. 131. NATIONAL SCIENCE AND ENGINEERING FOUNDA-**
2 **TION.**

3 The National Science Foundation and the National
4 Science Board are hereby renamed as the National Science
5 and Engineering Foundation and the National Science
6 and Engineering Board, respectively, and all references
7 thereto in Federal law or regulation shall be deemed to
8 refer to the National Science and Engineering Foundation
9 or the National Science and Engineering Board, as appro-
10 priate.

Amend the table of contents accordingly.

The CHAIRMAN. The gentleman is recognized.

Mr. BARTON. Thank you, Mr. Chairman.

Hopefully I can be brief.

This is an amendment that was offered last year at the same time on a show of hands, it lost 16 to 22. I have gone back to the National Engineering Society and asked if they wanted it to be offered again in this mark up. They've said that they do.

The amendment is fairly straightforward.

The National Science Foundation, in its charter as amended, everywhere it uses the word "science" it says "and engineering."

The annual report to this Committee asking for budget authority for the coming year in the summary sheet, everywhere they say science they say "and engineering."

Engineering is a separate discipline. It is a profession. The engineers feel very strongly that they are worthy of having their name in the title of the National Science Foundation. The Charter does use the words "and engineering" where it says "science."

There's no cost to this amendment.

The Director of the National Science Foundation, Dr. Neal Lane, in testimony before this Committee earlier this year said that there's not a cost consideration. I do need to be honest with the Committee and indicate that Dr. Lane is opposed to the amendment.

I called him yesterday to ask if he could be supportive or at least neutral. He said no, that he would have to continue to oppose it. I wouldn't characterize his opposition as absolutely under no circumstances, but the Committee does need to know that Dr. Lane is opposed at present.

If engineers are passionate about anything, and I am an engineer, they are passionate about this.

I have checked in the last week with most of the national societies and with my Texas society. They are very, very optimistic and hopeful that we will pass this.

I know we're going to have bipartisan support. I've got a number of members on the Democratic side who've indicated that they're very supportive of it.

I would like to pass this on a voice vote if at all possible. My whip count indicates that the votes are there slightly, depending on who's here when we have the vote.

With that, I would yield back the balance of my time.

The CHAIRMAN. That's often the case. It depends on who's in the room.

Is there further discussion on the gentleman from Texas' amendment?

Mr. Bartlett?

Mr. BARTLETT. Mr. Chairman, I remember our discussion last year on this item. Joe Barton is a very good friend, and I too worked as an engineer. I spent my life roughly divided between the scientific world, where I have roughly 100 papers in the literature, and the engineering world where I was awarded 20 patents.

So I am very respectful of the role that engineers play in our society. But engineers are not scientists. And I have a problem with changing the name of the National Science Foundation.

Science is a very separate discipline. Science is really translated into useful products and technologies for our society through engineering. And so there is certainly a bond between the two disciplines.

But, you know, if engineers are to be recognized by a national organization equivalent to the National Academy of Sciences, I would be strongly supportive of that. But I have a problem with combining these two names in the same organization because I think that it dilutes the role and the effectiveness of both organizations.

For these reasons—I'm very respectful of Joe Barton's agenda in this, I would respectfully rise against the amendment.

Mr. BARTON. Would the gentleman yield?

Mr. BARTLETT. I'll be very happy.

Mr. BARTON. I'm sure that my distinguished friend from Maryland is aware that there is a separate National Academy of Engineering in addition to an Academy of Sciences.

Mr. BARTLETT. Why is that not then sufficient for the engineers?

Mr. BARTON. The Academies of Engineering and the Academies of Sciences are separate organizations. The point I'm trying to make is when you say the National Academy of Sciences, there is also a National Academy of Engineers, but in this instance, in the Foundation, we have one Foundation that has both in that Foundation. That's why we'd ask for the name change.

Mr. BARTLETT. I still am opposed to the name change because I think that it will detract from the effectiveness of both organizations, and I think that science needs to be undiluted.

I have, on a number of occasions, taken the position that we should not ask scientists to be involved with other activities like joining industry and manufacturing and so forth, because I think it detracts from the role of the basic scientist who is committed to the search for knowledge.

Engineers are concerned with the application of knowledge, not with the search for knowledge.

Mr. DAVIS. Will the gentleman yield?

Do you know what the cost is when you get through all that paper work that goes through to change the name on the buildings and everything else? Has anybody put a cost to this? Maybe the gentleman from Texas?

Mr. BARTON. I have no idea what the cost is, but if the gentleman from Virginia would yield, we asked that question to Dr. Lane. He said there's no cost.

That's not literally true. There would be some cost. You'd have to change the name on the building. You'd have to, over time, change the letterhead, but the cost is minimal.

Mr. OLVER. Mr. Chairman?

The CHAIRMAN. The gentleman from Massachusetts.

Mr. OLVER. Thank you, Mr. Chairman.

I would just like to observe that I think it would be particularly ironic if, in this bill which you, Mr. Chairman, have attempted within your understanding of what is research and what is applied, if we in the same bill were to put together the National Science Foundation and make it a National Engineering and Science Foundation, which clearly mixes up applied and science.

I am curious to hear what, Mr. Chairman, you're going to say in closing your debate on this. I oppose the change and think we ought to keep the Science Foundation a basic science foundation.

The CHAIRMAN. You may rethink your position when you hear mine.

[Laughter.]

Mr. BROWN. Mr. Chairman?

The CHAIRMAN. The gentleman from California?

Mr. BROWN. I have been involved in this problem for quite a number of years, and at the request of the various engineering professional groups, I was I think instrumental in getting a number of changes in the National Science Foundation's charter to indicate the coordinate role of engineering in the work that the Foundation does.

It does have an engineering Directorate. That Directorate focuses on not so much the applications of engineering.

It does not try to tell a structural engineer how to be a better structural engineer, per se. It does conduct engineering research that is important to the engineering community.

It has a number of institutes that relate to that. A number of these so-called partnerships that sometimes are an anathema to some of us in which it encourages and supports the cooperation of engineers in universities and industry and in the Federal Government to address certain problems which are recognized of high priority.

At the time we were making the changes in the language of the charter, it was to show the importance of the engineering activity.

We considered changing the name. In addition to that, of course, on a number of occasions over the last 25 years I have sought to explore the possibility of establishing a separate technology or engineering foundation. Just as we have a National Science Foundation, I felt that we should have a National Engineering or a National Technology Foundation.

This of course would parallel what exists within the National Academy where they have an old and respected National Academy of Science, and a much more recent National Academy of Engineering. And of course there is a third part which does not get mentioned so often, the National Institute of Medicine.

They are coordinated through the National Research Council in dealing with research problems of high priority to the Nation.

So we do not have an exact basis for parallelism here. An exact basis would be to have a National Technology Institute.

We already have the National Institutes of Health. Then we would have a structure that parallels the Academy structure and we could do research through a number of mechanisms that would have guidance and support from these three institutions.

Now I am sort of belaboring the point here, but the reason we did not go ahead with the change in the title. At the time we were originally changing the language to reflect the importance of engineering was because it was a polarizing activity.

It would have created a competition, an ego competition, between scientists and engineers more than anything else, although it would not have changed the reality of what the National Science Foundation did in any way.

Now for that reason, that it would have been a polarizing experience, I think we decided at that time not to push the point.

Now I would point out that this Committee has gone through a similar experience. I thought the name "Science, Space, and Technology" was a perfectly appropriate name; but the Chairman in his wisdom, and with obviously the concurrence of the minority, thought "Science" was a better name and better reflected his feeling that we should not be so concerned quite so much with technology and engineering.

I perhaps for no other reason than to make this point am going to vote for Mr. Barton's proposal. that what we really need is a balance. We have got that, in practice. The title is a competition and an ego satisfaction more than anything else.

At this point, I think to illustrate that, I will vote for Mr. Barton's amendment, to make the title reflect what is contained in the body of the charter, an organization which seeks to meet both the science and the technology needs in this country.

The CHAIRMAN. The time of the gentleman has expired.

Are there additional Members who wish to be heard on the Barton amendment?

[No response.]

The CHAIRMAN. I would simply point out to the Committee that NSF is an agency with a worldwide reputation as one of the premier science agencies not only in this country but in the world, and that a name change will in fact influence the ability of us to make the points that we have been able to make through the work on the National Science Foundation worldwide.

Adding "engineering" to NSF's names suggests that science and engineering are fundamentally separate and incompatible. A broader perspective I think recognizes that science is a method for solving problems. It is a method used by physicists, chemists, anthropologists, and engineers. NSF does not support engineering as classically defined--meaning, that the application of science and mathematics to practical ends; rather, it supports research using scientific method on problems of interest to engineers, just as it supports research using the scientific method on problems of interest to chemists, physicists, and anthropologists.

The absence of engineering in the Science Foundation's name is not indicative of a lack of respect for engineers any more than the absence of "teachers" in the name shows a lack of respect for education, another of the foundation's central missions.

The move to gain support for the name change comes at a particularly unsuitable time for NSF, inasmuch as the Fiscal Year 1997 budget emphasizes moving out of the constrained ways of looking at problems and encouraging interdisciplinary thinking and the integration of problem-solving efforts across multiple areas of inquiry.

NSF does not need a name change that brings attention to outdated professional rivalries that are irrelevant to the mission of the agency.

The name of the Committee was changed from Science, Space and Technology to Science to indicate my support for the idea of science as an interdisciplinary kind of way of looking at things.

Similarly, I believe the National Science Foundation supports the idea of basic research and the extension of science in all of its many manifestations.

Therefore, I would oppose this amendment. I think it is something which ultimately would be detrimental to the agency. It is my understanding, as Mr. Barton has pointed out, that the agency also does not support changing its name.

With that, the Chair will put the question.

Those in favor of the amendment will say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed will say, no.

[Chorus of nays.]

The CHAIRMAN. In the opinion of the Chair, the ayes have it. The ayes have it, the amendment is agreed to.

Mr. EHLERS. Roll call.

The CHAIRMAN. The gentleman from Michigan asks for a recorded vote. Those in favor will vote aye. Those opposed will vote, no. The Clerk will call the roll.

The CLERK. Mr. Walker?

The CHAIRMAN. No.

The CLERK. Mr. Walker votes no.

The CLERK. Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Boehlert?

Mr. BOEHLERT. Aye.

The CLERK. Mr. Boehlert votes yes.

Mr. Fawell?

Mr. FAWELL. No.

The CLERK. Mr. Fawell votes aye.

Mrs. Morella?

[No response.]

Mr. Weldon of Pennsylvania?

Mr. CURT WELDON [PA]. Yes.

The CLERK. Mr. Weldon votes yes.

Mr. Rohrabacher

Mr. ROHRABACHER. Oh, I'll vote yes.

[Laughter.]

The CHAIRMAN. An enthusiastic vote.

[Laughter.]

The CLERK. Mr. Rohrabacher votes yes.

Mr. Schiff?

[No response.]

The CLERK. Mr. Barton?

Mr. BARTON. Yes.

The CLERK. Mr. Barton votes yes.

Mr. Calvert?

Mr. CALVERT. Yes.

The CLERK. Mr. Calvert votes yes.

Mr. Baker?

Mr. BAKER. No.

The CLERK. Mr. Baker votes no.

Mr. Bartlett?

Mr. BARTLETT. No.

The CLERK. Mr. Bartlett votes no.
Mr. Ehlers?
Mr. EHLERS. No.
The CLERK. Mr. Ehlers votes no.
Mr. Wamp?
Mr. WAMP. No.
The CLERK. Mr. Wamp votes no.
Mr. Weldon of Florida.
Mr. DAVE WELDON [FLA]. Yes.
The CLERK. Mr. Weldon votes yes.
Mr. Graham?
Mr. GRAHAM. Yes.
The CLERK. Mr. Graham votes yes.
Mr. Salmon?
Mr. SALMON. Yes.
The CLERK. Mr. Salmon votes yes.
Mr. Davis?
Mr. DAVIS. No.
The CLERK. Mr. Davis votes no.
Mr. Stockman?
Mr. STOCKMAN. Yes.
The CLERK. Mr. Stockman votes yes.
Mr. Gutknecht?
Mr. GUTKNECHT. Mr. Gutknecht votes yes.
The CLERK. Mr. Gutknecht votes yes.
Mrs. Seastrand?
Mrs. SEASTRAND. Yes.
The CLERK. Mrs. Seastrand votes yes.
Mr. Tiahrt?
Mr. TIAHRT. Yes.
The CLERK. Mr. Tiahrt votes yes.
Mr. Largent?
Mr. LARGENT. Yes.
The CLERK. Mr. Largent votes yes.
Mr. Hilleary?
Mr. HILLEARY. Yes.
The CLERK. Mr. Hilleary votes yes.
Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no.
Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no.
Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no.
Mr. Brown?
Mr. BROWN. Mr. Brown votes yes.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
Mr. VOLKMER. Yes.
The CLERK. Mr. Volkmer votes yes.
Mr. Hall?
Mr. HALL. Yes.

The CLERK. Mr. Hall votes yes.
Mr. Gordon?
[No response.]
The CLERK. Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner.
Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes.
Mr. Roemer?
Mr. ROEMER. No.
The CLERK. Mr. Roemer votes no.
Mr. Cramer?
Mr. CRAMER. No.
The CLERK. Mr. Cramer votes no.
Mr. Barcia?
Mr. BARCIA. No.
The CLERK. Mr. Barcia votes no.
Mr. McHale?
Mr. MCHALE. Yes.
The CLERK. Mr. McHale votes yes.
Ms. Harman?
Ms. HARMAN. Yes.
The CLERK. Ms. Harman votes yes.
Ms. Johnson?
[No response.]
The CLERK. Mr. Minge?
Mr. MINGE. No.
The CLERK. Mr. Minge votes no.
Mr. Olver?
Mr. OLVER. No.
The CLERK. Mr. Olver votes no.
Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. No.
The CLERK. Ms. Rivers votes no.
Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
Mr. WARD. Yes.
The CLERK. Mr. Ward votes yes.
Ms. Lofgren?
Ms. LOFGREN. No.
The CLERK. Ms. Lofgren votes no.
Mr. Doggett?
Mr. DOGGETT. No.
The CLERK. Mr. Doggett votes no.
Mr. Doyle?
Mr. DOYLE. No.
The CLERK. Mr. Doyle votes no.
Ms. Jackson Lee?
Ms. JACKSON LEE. Aye.
The CLERK. Ms. Jackson Lee votes yes.
Mr. Luther?

Mr. LUTHER. No.

The CLERK. Mr. Luther votes no.

The CHAIRMAN. Are there any other Members who have not been recorded?

The CLERK. Mr. Gordon?

Mr. GORDON. Yes.

The CLERK. Mr. Gordon votes yes.

The CHAIRMAN. How is Mrs. Morella recorded?

The CLERK. Mrs. Morella is not recorded.

Mrs. MORELLA. Mrs. Morella votes no.

The CLERK. Mrs. Morella votes no.

The CHAIRMAN. Are there any other Members who wish to be recorded?

[No response.]

The CHAIRMAN. If not, the Clerk will report.

The CLERK. Mr. Chairman, the roll call vote is yes, 23; no, 22.

The CHAIRMAN. The amendment is agreed to.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********************* ROLL CALL**

Subject: Amendment by Mr. Barton **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY			1		
2159	53515	Mr. Fawell, R-IL				3	
106	55341	Mrs. Morella, R-MD				22	
2452	52011	Mr. Curt Weldon, R-PA			2		
2338	52415	Mr. Rohrabacher, R-CA			3		
2404	56316	Mr. Schiff, R-NM				—	
2264	52002	Mr. Barton, R-TX			4		
1034	51986	Mr. Calvert, R-CA			5		
1724	51880	Mr. Baker, R-CA				4	
322	52721	Mr. Bartlett, R-MD				5	
1717	53831	Mr. Ehlers, R-MI				6	
423	53271	Mr. Wamp, R-TN				7	
216	53671	Mr. Dave Weldon, R-FL			6		
1429	55301	Mr. Graham, R-SC			7		
115	52635	Mr. Salmon, R-AZ			8		
415	51492	Mr. Davis, R-VA				8	
417	56565	Mr. Stockman, R-TX			9		
425	52472	Mr. Gutknecht, R-MN			10		
1216	53601	Mrs. Seastrand, R-CA			11		
1319	56216	Mr. Tiahrt, R-KS			12		
410	52211	Mr. Largent, R-OK			13		
114	56831	Mr. Hilleary, R-TN			14		
1114	52311	Mrs. Cubin, R-WY				9	
506	55792	Mr. Foley, R-FL				10	
509	51976	Mrs. Myrick, R-NC				11	
2300	56161	Mr. Brown, D-CA			15		
2409	52956	Mr. Volkmer, D-MO			16		
2236	56673	Mr. Hall, D-TX			17		
2201	54231	Mr. Gordon, D-TN			23	—	
2446	55261	Mr. Traficant, D-OH				—	
1127	54714	Mr. Tanner, D-TN			18		
407	53915	Mr. Roemer, D-IN				12	
236	54801	Mr. Cramer, D-AL				13	
1410	58171	Mr. Barcia, D-MI				14	
217	56411	Mr. McHale, D-PA			19		
325	58220	Ms. Harman, D-CA			20		
1123	58885	Ms. Johnson, D-TX				—	
1415	52331	Mr. Minge, D-MN				15	
1027	55335	Mr. Olver, D-MA				16	
1039	51313	Mr. Hastings, D-FI				—	
1116	56216	Ms. Rivers, D-MI				17	
1232	54535	Ms. McCarthy, D-MO				—	
1032	55401	Mr. Ward, D-KY			21		
118	53072	Ms. Lofgren, D-CA				18	
126	54865	Mr. Doggett, D-TX				19	
1218	52135	Mr. Doyle, D-PA				20	
1520	53816	Ms. Jackson Lee, D-TX			22		
1419	52271	Mr. Luther, D-MN				21	
					23	22	

Attest: Patricia Schwartz (Clerk)

The CHAIRMAN. The Rohrabacher's enthusiastic vote really came through there. We will move on.

Are there any further amendments to Title I?

[No response.]

The CHAIRMAN. If not, the Clerk will designate Title II.

The CLERK. Title II, National Aeronautics and Space Administration——

The CHAIRMAN. Mr. Roemer, Amendment No. 4.

Mr. ROEMER. Mr. Chairman, I have an amendment at the desk.

The CHAIRMAN. Is it the amendment in the package?

Mr. ROEMER. Yes, sir.

The CHAIRMAN. The gentleman is recognized.

[Text of the amendment follows:]

AMENDMENTS TO THE COMMITTEE PRINT OFFERED BY MR. ROEMER

Page 23, line 22, insert "and" after "Administration;".

Page 23, line 23, through page 24, line 2, strike paragraph (2).

Page 24, line 3, redesignate paragraph (3) as paragraph (2).

Page 24, line 14, strike paragraph (1).

Page 24, lines 15 and 17, and page 25, lines 6 and 8, redesignate paragraphs (2) through (5) as paragraphs (1) through (4), respectively.

Page 25, line 16, strike "$498,500,000" and insert in lieu thereof "$230,700,000".

Page 26, line 9, strike "$711,000,000" and insert in lieu thereof "$679,400,000".

Page 38, line 1, through page 42, line 18, strike subtitle C.

Page 42, line 19, redesignate subtitle D as subtitle C.

Amend the table of contents accordingly.

Mr. ROEMER. Mr. Chairman, this is an amendment that I offer ever year. Mr. Hall and I were kidding each other that we could just get out our usual speeches and accolades to each other and disagree on the issue.

I want to make the argument especially to new members of the Committee that there are new arguments to be made on this particular vote.

First of all, a brief history of the Space Station, Mr. Chairman. When Ronald Reagan, the President of the United States, in 1984 first devised and came up with this dream of a space station, he had in mind spending $8 billion and doing eight different scientific missions with this Space Station.

The missions included everything from platforms to help us to look into space, platforms pointed at the earth to help us with the environment, and the list goes on and on.

Today in 1996 the cost has gone from $8 billion to build and complete this project now to a total cost, when everything is factored in, to almost $90 billion.

At the same time, the science of this particular mission has moved from eight objectives to one single objective.

Now I do not think in a time when we are trying to balance the budget, when we are trying to make tough decisions to reach the target of a balanced budget in the next seven years, that a Space Station should be one of the highest priorities, especially when Congress is talking about cutting Head Start programs, cutting Title I programs for at-risk children, cutting safety and drug-free schools by 16 to 25 percent, this Space Station should not be in the budget.

Now the second reason that I would advocate support for this amendment to eliminate the Space Station is because it is cannibalizing the rest of the NASA budget.

When you look down at the rest of the NASA budget, you see, and we have heard from witnesses talking about the Shuttle program and their concern with the safety of the Shuttle program, that $375 millon is being cut from Mission to Planet Earth; $34 million cut to the Advanced Subsonic Program in Aeronautics; $51 million cut to Construction of New Facilities; $120 million cut to Research and Personnel Management—the list goes on and on.

How far are we going to let the rest of the sciences and NASA be devastated before we decide to do something about it?

You have the opportunity to do something about the cannibalization of the budget and about deficit reduction.

I would also argue, Mr. Chairman, and I would hope we could continue to look into this—and Mr. Sensenbrenner expressed some interest in this when our hearings took place a couple of weeks ago with Mr. Goldin—the Russians currently get about $400 million for their part of taking place and building the Space Station.

Reportedly, they are behind. We do not know how far behind. We do not know how much that is going to cost the American taxpayers. We do not know how that is going to affect integration with our hardware. We do not have the tough answers to those questions.

I would hope that before we would put another $2.1 billion into the Space Station that we would get some of those answers from

our government and from the Russians so that it does not continue to get to be a higher and higher cost.

Finally, in conclusion, if I have not made any compelling arguments so far to this oversight committee, and I see Mr. Weldon shaking his head no, I do not think I will ever get his vote on this amendment, I would argue that if you vote for this amendment, all the other programs, if you cut $2.1 billion out of this bill, almost every other program can be restored to the original level of spending, to the President's level on renewables, on solar energy, on subsonic and NASA, on Mission to Planet Earth, all of these program will not be cannibalized, will not be gutted, will not be decimated if we make one tough choice today.

If we are willing to eliminate one program, then we can make sure that all these other investments in technology, in safety, and in research will be restored.

With that, I am glad that the gentleman has put the gavel down because I know Mr. Hall wants to speak for awhile in support of the Space Station.

The CHAIRMAN. The time of the gentleman has expired.

The gentleman from Wisconsin.

Mr. SENSENBRENNER. Mr. Chairman, let me begin by asking unanimous consent to insert my last year's speech against Mr. Roemer at this point in the record, because what I said last year is just as valid as the situation today.

The CHAIRMAN. Without objection.

Mr. SENSENBRENNER. Mr. Chairman, seriously, with the exception of the Russian problem, the Space Station is on time and on budget.

We have flushed out the cost overruns that almost killed the Space Station. We are now building hardware, and within a year-and-a-half from the time we speak the first element will be launched and will start to be assembled.

I am very gratified at the progress that the Japanese, the Canadians, and the European space agency member nations are making in coming up with their part of the Space Station program.

If we unilaterally cancel the Space Station here in the United States, we are going to have a big hole dug in our foreign policy relationship with countries that have been our close allies both in terms of world politics as well as in terms of economics literally since the end of World War II. And that is going to mean a waste of billions of dollars that the Japanese taxpayers have coughed up, the German taxpayers, the French taxpayers, the Canadian taxpayers, the Italian taxpayers, and I could go on and on.

With respect to Russia, I am assured by Mr. Goldin, as well as by the Russians that I have talked to, that as long as the Russian government pays the contractors for what Russia is to provide and pay for on time, they will be able to catch up and to launch the International Space Station service module in April of 1998, as has been committed by the international agreements.

Because of the economic and political troubles in Russia, that issue is going to be up in the air, literally, until the rocket leaves the launch pad. But I would implore the members of the Committee not to turn their back on the Space Station at this point in time, because if the Russians are kicked out of the international

consortium by the United States rather than by their own movement, we are going to put Russia further into a corner. And if Russia gets too far into a corner, the cold war begins again, and it is going to cost the taxpayers a lot more money than we are talking about here today.

I think that NASA has done a good job in keeping the Space Station on time and on budget. We have got about 50,000 pounds of hardware already built here in the United States. Do not throw that in the waste baskets by adopting the Roemer Amendment.

I yield back the balance of my time.

Mr. ROEMER. Would the Chairman of the subcommittee yield?

Mr. SENSENBRENNER. I would be happy to.

Mr. ROEMER. One of my concerns, as the Chairman of the subcommittee knows, is the uncertainty with the Russians.

Mr. SENSENBRENNER. I am concerned about it, too.

Mr. ROEMER. Whether or not this Committee and this Congress decides to go and build a Space Station—some of this is now out of our hands, since we are paying the Russians to do some of it and they are not coming through with certainty and reliability——

Mr. SENSENBRENNER. If I can regain my time, what we are paying the Russians to do, they are doing. What the Russians are supposed to be paying for themselves; that is where they are falling behind.

No less a person than the Vice President of the United States has received assurances from the Russian Prime Minister that the payments are going to be made on time in order to allow Russia to meet its obligations in the International Space Station.

If Mr. Gore—I think the gentleman from Indiana is really disputing the conclusions that the Vice President has reached on this subject.

Mr. ROEMER. Yes, I disagreed with President Bush and I disagree with President Clinton on this, and I adamantly disagree with both of them, and I will continue to fight for what I think is a good vote, and that is cancelling the Space Station.

But what about the elections coming up in June? What if Mr. Yeltsin loses and the communists take over, despite their willingness right now with Mr. Yeltsin in control that they want to go forward?

I would hazard a guess——

Mr. SENSENBRENNER. Reclaiming my time, obviously a new Russian administration would have to make a determination on whether or not to continue, just as if Mr. Clinton and Mr. Gore lose in November the Dole administration would have to make a similar decision in the United States.

I think it would ill behoove new administrations, both in Russian and in the United States, to turn their back on this seminal act of international scientific cooperation. Because if this is done, the country that does it knows that it is going to be a long time before any international cooperation occurs on science or anything else.

My time has expired.

The CHAIRMAN. The time of the gentleman has expired.

The gentleman from Texas.

Mr. HALL. Mr. Chairman, I spent the week before last in Russia, and I spent last week in the United States. It does not really ap-

pear that the gentleman from Wisconsin has got anything to worry about.

I think the same people are going to be making the decisions if something drastic doesn't change. I enjoy this time-honored tradition of working on the Science Committee's markup with Mr. Roemer. I can't think of anybody I like better than Mr. Roemer, or anybody I would rather look like.

[Laughter.]

Mr. HALL. And you know, Mr. Chairman, we all have some type of a cup for a handout, because there are tokens to give in honor of this date, because it is traditions like anniversaries or sesquicentennial, or home comings.

The gentleman talked about Reagan's expenditures starting with $8 billion, and up, up, up. I guess if we wanted to be clever we could call that his trickle-up program.

It is going to work. I respect your persistence. I just disagree with the amendment. It is always important to ask tough questions about space. We have to do this.

It is expensive. However, the question of whether we should build a Space Station has already been answered. The question has been answered time and time again, just as the gentleman from Wisconsin said:

The U.S., Europe, Japan, Canada, and Russia are all working together to make the program a reality, and we are less than two years away, sometime toward the end of 1997, away from the launch of the initial components.

We are on our way. And we of course believe and know, and I am almost convinced by Mr. Roemer, but not quite this time, and I look forward to the next meeting we have, Tim, when I will have my same answers.

Mr. Chairman, I yield back my time.

The CHAIRMAN. The gentleman from California.

Mr. ROHRABACHER. I respect Mr. Roemer's opposition to the Space Station. It is based on principle and based on the judgment that we can only spend so much money. He is interminably consistent, but I respectfully disagree with his conclusion in terms of this particular place to cut.

Let me just say, when we are talking about what we are going to be doing with the Space Station, the question not only is can we count on the Russians, but what will a cancellation of the Space Station right now mean to the United States vis-v-vis our relationship with the Russians and other people, but in particular with our former enemies in the Soviet Union.

They are trying to determine in which direction they want to go. There is nothing that would be more symbolic to a break with the West than for us to cancel the Space Station project right now.

Their cooperation with the United States and with Western powers in the conquest and utilization and the commercialization of space is something that they can offer the West, and something that gives that country pride. It is something that actually bolsters the pro-Western elements within the former Soviet Union.

I think it would be a death blow to our relations with the democratic people of the former Soviet Union for us to cancel that Space Station now. That would cost us a lot more in the long run than

what we are talking about to finish the expenditures of the current Space Station project.

So when you look at it that way in terms of those costs, those have to be calculated into the formula as to what we are discussing here today.

One last thing is that this project has cost us a lot of money. It would be like, if we cancelled now, it would be like flushing that money into outer space. I know that.

I remember that when the C-17 project was going through a lot of difficulties in the past, I remember we just saved the C-17 project by just a few votes on the Floor. I think it was about five years ago.

There were major problems in that project—I mean, major problems—and they wasted a lot of money. People were doubting whether we were going to get a plane out of it or not because McDonnell-Douglas has made some wrong decisions early on.

Well, what happens now?

We have got a magnificent airplane. We have got a piece of technology now in the C-17 that will give America the latitude and flexibility and the strength of air power that will not be equalled by anyone in the world for decades to come.

We could have flushed that program down, too. It had a lot of problems. Well, now is not the time after we have spent all this money and we are just ready to launch to make this decision not to go forward.

I actually might agree with Mr. Roemer 10 years ago, or 15 years ago when they first started going on this project—actually, 10 years ago—whether we should start the project now. But after we have spent the money and we have got the engineering done, and we have overcome the challenges, now is not the time to go back and just actually waste the money that has already been spent.

Also in the end, as I say, it also has a foreign policy component which is very positive. I yield back the balance of my time.

The CHAIRMAN. Mr. Cramer?

Mr. CRAMER. Very quickly, Mr. Chairman. I am afraid someone will not know that I am opposed to Mr. Roemer's amendment. I had to leave the room when he began making his remarks.

I think I could make them for him by now. This is enough already. We had gone too far. All the right remarks have been made.

We need to defeat this once again.

Ms. JOHNSON. Mr. Chairman?

The CHAIRMAN. Ms. Johnson.

Ms. JOHNSON. Mr. Chairman, I support the Space Station. I support the outcomes that we have had from the exploration. I want to assure my colleague from Indiana that I too am concerned about Head Start, and Drug Free Schools.

But, you know, the Supercollider was cancelled, and not a single additional penny went into those programs. They are still being cut.

So I do not think you have to worry about whether or not those programs will get any additional dollars if the Space Station is cancelled. I can almost assure you that they will not.

So they will not lose anything here. I support the Space Station.

Thank you.

Ms. RIVERS. Mr. Chairman?

The CHAIRMAN. Ms. Rivers.

Ms. RIVERS. Thank you, Mr. Chairman.

A couple of comments. As a new member who has heard this argument only once, it is still new and novel to me. Frankly, it is pretty appealing when I look at the budget and study priorities. I think these kinds of large projects have to come under the scrutiny of the people who are setting priorities.

I have heard some very interesting comments here today. I have heard one member say it is almost as if the Space Station is going to bring us world peace, and it is the only avenue to doing that because if we do not continue it, there is going to be this terrible fallout.

I do not think that is true. I think it is an interesting argument to make in a Congress where we have seen many, many members rail against foreign aid in general to say, well, the way we can keep good relations with those foreign countries is to spend money on this particular project.

The argument that we are already engaged, and therefore we really cannot make changes, are not fair to the people involved. That would apply similarly to welfare. There are millions of people on welfare right now, and we are poised to make very real changes in that, and we expect people to accommodate those changes.

Lastly, the argument about good money after bad. If we do not finish this up that we somehow will have lost.

One of the things I am particularly interested in is not just the cost of producing this project, but what the cost of operation will be over time.

We on the Science Committee have worked very hard to talk about cost/benefits this day, and I rarely hear this project put forward as one where the benefits will definitely outweigh the costs.

When we heard some testimony last year on this, the kinds of benefits that were put forward were really in the speculative range: medical advances, with no specificity for what those would be; engineering advances with no specificity.

So I think from the view of a freshman member who is being asked to put many, many things under the microscope, I don't see this as an unreasonable proposal and I am going to support it.

Mr. DAVE WELDON [FLA]. Mr. Chairman, I rise in opposition to the Roemer amendment.

Let me just say that, as a practicing physician, I have seen firsthand some of the real-life spinoffs from the space program firsthand. Materials science has affected cardiac catherization technology; imaging technology using MRI scanning, CAT scanning. But the main thing that I wanted to say, and I think the subcommittee Chairman spoke very eloquently on the need to oppose this amendment, but again was cited this figure of $90 billion for our Space Station.

Let me just say that this figure is a very, very misleading figure. The type of analysis they used to come to that figure would be very, very similar, in my opinion, to saying the Louisiana Purchase did not cost the Federal Government $17 million, when it actually cost us billions and billions of dollars, because we had to build all those houses and roads in the Midwest.

Included in this $90 billion figure is the cost of all the research, the use of the Shuttle program, even the water going up to the astronauts.

The decisions here is not whether it is going to cost such and such, but whether or not we want to do it, and whether or not we have the willpower to do it.

I think the Committee has gone on record last year, and I think the whole House went on record, with a record vote close to 300 votes, I believe, in support of the Space Station.

I do, as well, commend the Member from Indiana for his persistence in presenting this again, but I would strongly urge all my colleagues to vote "no" on the Roemer amendment, and I yield back the balance of my time.

Ms. LOFGREN. Mr. Chairman?

The CHAIRMAN. The gentlewoman from California.

Ms. LOFGREN. Thank you, Mr. Chairman. I will be brief.

I just wanted to speak also in opposition to the amendment before us. As with Ms. Rivers, I am a freshman and I have only heard the argument once, and I do respect Mr. Roemer's integrity and his belief in the amendment. I agree with many of the arguments made as to the lack of advisability of pulling the plug on this project so close to completion and the impact on international relations were we to do so, but I just wanted to add:

The whole history of our space exploration program has been reaching out to what we do not know. If we look at, as was just referenced by the prior speaker, the spinoff benefits to science, technology, and the broader leaders of American society, it has almost been things that we did not know that we would benefit from that we did not know would result from the exploration.

Although we have received reports on the expected product from the Space Station, my guess is that the biggest payoff will be in areas that we cannot even imagine. And that is something that deserves additional mention, not just the nuts and bolts, but the vision, the excitement, and really the dreaming that categorizes American society and the space program.

With that, I would yield back the balance of my time.

The CHAIRMAN. Ms. Jackson Lee.

Ms. JACKSON LEE. Mr. Chairman, I would like to associate myself with the remarks made by my colleague from Texas, Ms. Johnson, and particularly to my friend, Mr. Roemer, who has mentioned very dear programs as far as I am concerned—Drug Free Schools and Head Start.

I can very much agree that it is questionable whether any of these funds that would be proposed to be saved would in any way go to these other programs.

I think we always have to make hard choices. And so I rise certainly in opposition to his offering, and would simply say that, putting aside international relations and foreign policy, we are talking about American jobs, and American research, and American ability to deal with 21st century issues.

I think that we are seeing in the Houston area the reaction, or the results of biotechnology and biomedical processes that will use some of the Space Station research to further enhance medical research.

We do not want to see that come to an end. Certainly we can say to those who have worked so diligently in this area that we do not want to lose American jobs.

We saw the tragic results of the denial of the Supercollider, and I would hope that in our wisdom today that we oppose this amendment and support the Space Station on behalf of Americans, American knowhow, and American jobs.

I yield back my time.

Mr. MINGE. Mr. Chairman?

The CHAIRMAN. Mr. Minge.

Mr. MINGE. Mr. Chairman, I would like to speak in support of Mr. Roemer. This is the third time I have seen this issue come before the Committee.

I share with Mr. Roemer the concern about our priorities, both the use of research dollars and in terms of federal budgeting.

The number of projects that could be undertaken at universities and research laboratories around this country with these funds is phenomenal.

We are not talking about whether or not we ought to invest in research. It is whether or not we ought to focus this enormous amount of money in this particular project to the disadvantage of hundreds if not thousands of other projects that could be pursued instead.

So at this point I would urge any colleagues that remain undecided to support Mr. Roemer in his effort, and I yield back the balance of my time to Mr. Roemer.

Mr. ROEMER. I thank the gentleman from Minnesota.

Just in reply to a couple of questions that have been raised. First of all, about pulling the plug, if you spent $2.1 billion a year for the next seven or eight years to complete this project, we are talking about $14 to $17 billion more, and we are having debates today about whether or not we should change the name of the National Science Foundation, what the cost of that is going to be?

Yet we say pull the plug on this? Spend another $15- or $16- or $20 billion to maintain this Space Station is insignificant?

Secondly, we are talking about international relations? I think it is very important to have a healthy, good, strong relationship with Russia, but does that mean that we say you do whatever you want in Chechnya where 35,000 people have died in a war?

Does that mean that we say we will continue to pay you $400 million a year of taxpayer money in the United States for your participation in this project?

Does that mean we do not question this?

Finally, I say to my democratic colleagues that are talking about programs that I am concerned about, Head Start and Safe and Drug Free Schools, and Chapter 1, we have to make tough choices, folks. We need a balanced budget. The American people want a balanced budget, and we have to make some selections.

Do we cut those education programs like some people in this Congress want to do?

Or do we cut a Space Station?

We cannot have everything anymore. I would implore my colleagues to make some of these tough choices.

The CHAIRMAN. The time of the gentleman has expired.

The gentleman from California.

Mr. BROWN. Thank you, Mr. Chairman.

Mr. Chairman, I take this time merely to explain my vote, not to engage in any extended harangue over it. I am going to vote with Mr. Roemer on this not because I agree with his line of thinking, but for reasons I would like to explain very briefly.

I frankly have voted most of my career in Congress over the last 34 years since I was first elected here to trying to maintain a strong, vigorous, and balanced program of investments in research and development for the benefit of this country.

I told the President personally less than three years ago that I thought programs in NASA were getting out of balance, and were threatened by what was then his projected long-term budget. I have become increasingly disturbed as I note the continued reduction in the outyear investments in space and in several other areas of science.

The trends are all drastically downward, more than I think is necessary even in order to achieve a balanced budget, a goal which I agree with.

I am now at the point where I feel, as I expressed to the President two or three years ago, that I cannot support the Space Station unless we can be assured there are additional resources to be drawn upon to continue to support the NASA Science programs, the NASA Aeronautical Research Program, even the NASA Mission to Earth program, and these are rapidly disappearing.

I see the strong possibility that with the continued budgetary trends we are going to lose major areas of political support for NASA, and I would not like to see that happen.

So I vote against the Space Station not because I don't like it; I do. I think it is in good hands now under Mr. Sensenbrenner's guidance, and Mr. Hall's continued interest. I think we can achieve the program.

But the major threat to it is a program of continued reductions in NASA which threaten major other areas since the space program is protected, and this will destabilize the political support for it and may result in it not only losing the Space Station but bringing NASA down to a level which we now think of as horrible, like $11 million. It will go even lower, probably, down to $8 or $9 billion—I'm sorry if I used "million," and it is this that I am trying to avoid, by sending a signal that this is likely to happen if we don't do something very drastically about it.

Mr. VOLKMER. Would the gentleman yield?

I have discussed this with the gentleman from California in the past, and I come at this time to the opposite conclusion to the gentleman from California.

As one who was here at the beginning of the Space Station in 1984, and as one who saw what happened to space science during development of the Space Shuttles and how that impacted adversely on the space science programs in NASA, I had made a commitment back then that if the same thing started to occur as a result of the Shuttle Program[2], then I would no longer be able to support the Shuttle Program.[2]

[2] "Shuttle Program" should be "Station Program."

I, however, in this bill do not see that occurring. I am anxious to see what occurs when we get to the appropriations process. And if in the appropriations process we see a diminution of effort and monetary support for space science, I don't have any alternative—because of the commitment I made back then—but than I will have to be strongly opposed to the Space Station, for the simple reason that I made a commitment back in 1984 that if the same thing would happen to space science programs as happened during the development of the Space Station——

Mr. BROWN. I very strongly respect the gentleman's views, since he is the previous Chairman of the Space Subcommittee himself, and reasonable people can differ on this.

I have for the past two years gracefully accepted defeat along with Mr. Roemer on this, and I probably will do so again today, but that does not reduce my concern for maintaining a balanced program in NASA in any way, shape, or form.

The CHAIRMAN. I thank the gentleman.

I was thrilled a few moments ago when we were debating here in the committee and we had a vote on the substitute, and I watched Mr. Roemer for the first time I can remember vote for the Space Station in the democratic substitute.

I mean, he livened it up. As a matter of fact, he spoke for the substitute and voted for the Space Station, and I thought that was an important moment as far as for the Committee, but alas that moment of nirvana passed quickly and here he is back with the same amendment that he usually brings to the Committee.

I would urge a no vote on it.

Just to give you one figure that I think indicates why this would be a bad thing to do at this moment, the amount of hardware produced through March of this year in 1996 has been 105,200 pounds. We have a fairly substantial portion of the Space Station that is now built, and we are preparing to move toward a time when we can begin to launch and assemble it in orbit.

It would be, I think, devastating to back out at a point that we have made that kind of a useful investment.

The Chair is prepared to put the question.

Those in favor of the amendment will say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed, will say no.

[Chorus of nays.]

The CHAIRMAN. In the opinion of the Chair, the nays have it.

Mr. ROEMER. Roll call, Mr. Chairman.

The CHAIRMAN. The gentleman from Indiana requests a roll call.

The Clerk will call the roll.

The CLERK. Mr. Walker votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Boehlert?

[No response.]

The CLERK. Mr. Fawell?

Mr. FAWELL. No.

The CLERK. Mr. Fawell votes no.

Mrs. Morella?

[No response.]
The CLERK. Mr. Weldon of Pennsylvania?
Mr. CURT WELDON. No.
The CLERK. Mr. Weldon votes no.
Mr. Rohrabacher?
Mr. ROHRABACHER. No.
The CLERK. Mr. Rohrabacher votes no.
Mr. Schiff?
[No response.]
The CLERK. Mr. Barton?
Mr. BARTON. No.
The CLERK. Mr. Barton votes no.
Mr. Calvert?
[No response.]
The CLERK. Mr. Baker?
Mr. BAKER. No.
The CLERK. Mr. Baker votes no.
Mr. Bartlett?
Mr. BARTLETT. No.
The CLERK. Mr. Bartlett votes no.
Mr. Ehlers?
Mr. EHLERS. No.
The CLERK. Mr. Ehlers votes no.
Mr. Wamp?
Mr. WAMP. Yes.
The CLERK. Mr. Wamp votes yes.
Mr. Weldon of Florida?
Mr. Dave WELDON. No.
The CLERK. Mr. Weldon votes no.
Mr. Graham?
Mr. GRAHAM. No.
The CLERK. Mr. Graham votes no.
Mr. Salmon?
Mr. SALMON. No.
The CLERK. Mr. Salmon votes no.
Mr. Davis?
[No response.]
The CLERK. Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no.
Mr. Gutknecht?
Mr. GUTKNECHT. No.
The CLERK. Mr. Gutknecht votes no.
Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no.
Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no.
Mr. Largent?
Mr. LARGENT. Aye.
The CLERK. Mr. Largent votes yes.
Mr. Hilleary?
Mr. HILLEARY. Yes.

The CLERK. Mr. Hilleary votes yes.
Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no.
Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no.
Mrs. Myrick?
Mrs. MYRICK. Yes.
The CLERK. Mrs. Myrick votes yes.
Mr. Brown?
Mr. BROWN. Mr. Brown votes aye.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
Mr. VOLKMER. No.
The CLERK. Mr. Volkmer votes no.
Mr. Hall?
Mr. HALL. No.
The CLERK. Mr. Hall votes no.
Mr. Gordon?
Mr. GORDON. Pass.
The CLERK. Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. No.
The CLERK. Mr. Tanner votes no.
Mr. Roemer?
Mr. ROEMER. Aye.
The CLERK. Mr. Roemer votes yes.
Mr. Cramer?
Mr. CRAMER. No.
The CLERK. Mr. Cramer votes no.
Mr. Barcia?
Mr. BARCIA. No.
The CLERK. Mr. Barcia votes no.
Mr. McHale?
Mr. MCHALE. No.
The CLERK. Mr. McHale votes no.
Ms. Harman?
Ms. HARMAN. No.
The CLERK. Ms. Harman votes no.
Ms. Johnson?
Ms. JOHNSON. No.
The CLERK. Ms. Johnson votes no.
Mr. Minge?
Mr. MINGE. Yes.
The CLERK. Mr. Minge votes yes.
Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes.
Mr. Hastings?
Mr. HASTINGS. No.
The CLERK. Mr. Hastings votes no.
Ms. Rivers?

Ms. RIVERS. Yes.
The CLERK. Ms. Rivers votes yes.
Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
Mr. WARD. No.
The CLERK. Mr. Ward votes no.
Ms. Lofgren?
Ms. LOFGREN. No.
The CLERK. Ms. Lofgren votes no.
Mr. Doggett?
Mr. DOGGETT. No.
The CLERK. Mr. Doggett votes no.
Mr. Doyle?
Mr. DOYLE. Yes.
The CLERK. Mr. Doyle votes yes.
Ms. Jackson Lee?
Ms. JACKSON LEE. No.
The CLERK. Ms. Jackson Lee votes no.
Mr. Luther?
Mr. LUTHER. Yes.
The CLERK. Mr. Luther votes yes.
The CHAIRMAN. Are there members?
Mr. Davis?
Mr. DAVIS. Mr. Davis votes no.
The CHAIRMAN. Mr. Davis votes no.
Mr. Gordon?
Mr. GORDON. No.
The CHAIRMAN. Mr. Gordon votes no.
Are there additional members who wish to be recorded?
[No response.]
The CHAIRMAN. If not, the Clerk will report.
The CLERK. Mr. Chairman, the roll call vote is yes 11, no 33.
The CHAIRMAN. The amendment is not agreed to.
The next amendment is also Mr. Roemer's.
[The roll call and the text of Mr. Roemer's other amendment follow:]

COMMITTEE ON SCIENCE - 104TH CONGRESS ********************** ROLL CALL**

Subject: Amendment #4 by Mr. Roemer to cancel the Space Station **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY					
2159	53515	Mr. Fawell, R-IL				3	
106	55341	Mrs. Morella, R-MD				—	
2452	52011	Mr. Curt Weldon, R-PA				4	
2338	52415	Mr. Rohrabacher, R-CA				5	
2404	56316	Mr. Schiff, R-NM				—	
2264	52002	Mr. Barton, R-TX				6	
1034	51986	Mr. Calvert, R-CA				—	
1724	51880	Mr. Baker, R-CA				7	
322	52721	Mr. Bartlett, R-MD				8	
1717	53831	Mr. Ehlers, R-MI				9	
423	53271	Mr. Wamp, R-TN			1		
216	53671	Mr. Dave Weldon, R-FL				10	
1429	55301	Mr. Graham, R-SC				11	
115	52635	Mr. Salmon, R-AZ				12	
415	51492	Mr. Davis, R-VA				56	
417	56565	Mr. Stockman, R-TX				13	
425	52472	Mr. Gutknecht, R-MN				14	
1216	53601	Mrs. Seastrand, R-CA				15	
1319	56216	Mr. Tiahrt, R-KS				16	
410	52211	Mr. Largent, R-OK			2		
114	56831	Mr. Hilleary, R-TN			3		
1114	52311	Mrs. Cubin, R-WY				17	
506	55792	Mr. Foley, R-FL				18	
509	51976	Mrs. Myrick, R-NC			4		
2300	56161	Mr. Brown, D-CA			5		
2409	52956	Mr. Volkmer, D-MO				19	
2236	56673	Mr. Hall, D-TX				20	
2201	54231	Mr. Gordon, D-TN				33	
2446	55261	Mr. Traficant, D-OH				—	
1127	54714	Mr. Tanner, D-TN				21	
407	53915	Mr. Roemer, D-IN			6		
236	54801	Mr. Cramer, D-AL				22	
1410	58171	Mr. Barcia, D-MI				23	
217	56411	Mr. McHale, D-PA				24	
325	58220	Ms. Harman, D-CA				25	
1123	58885	Ms. Johnson, D-TX				26	
1415	52331	Mr. Minge, D-MN			7		
1027	55335	Mr. Olver, D-MA			8		
1039	51313	Mr. Hastings, D-FI				27	
1116	56216	Ms. Rivers, D-MI			9		
1232	54535	Ms. McCarthy, D-MO				—	
1032	55401	Mr. Ward, D-KY				28	
118	53072	Ms. Lofgren, D-CA				29	
126	54865	Mr. Doggett, D-TX				30	
1218	52135	Mr. Doyle, D-PA			10		
1520	53816	Ms. Jackson Lee, D-TX				31	
1419	52271	Mr. Luther, D-MN			11		
					11	33	

Attest: Patricia Schwartz (Clerk)

AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MR. ROEMER

Page 24, line 14, strike "$1,840,200,000" and insert in lieu thereof "$1,740,200,000".

Mr. ROEMER. Mr. Chairman, I'll be brief with this amendment.

Certainly this Committee is not willing to eliminate the Space Station. We heard the message loud and clear with a 33 to 11 vote. They want to prioritize some cuts in some renewables and some solar energy programs, and the success stories from the Energy Department, some of those things that are on the chopping blocks.

That's the will of the Committee.

But certainly as Mission to Planet Earth is getting cut back by $375 million in this budget, $34 million cut to aeronautics, $51 million cut to the construction of new facilities under NASA.

Certainly if all these other programs are being cannibalized by the NASA budget with the Space Station staying steady at $2.1 billion, maybe this Committee can vote to cut back $100 million out of $2.1 billion.

That coincides, not to go at the Russian question again, which this Committee believes is so important for our international relations, but we happen to send the Russians about $100 million each year out of their commitment to build a space station.

This $100 million is not targeted at the Russians. It's simply saying that we should share a little bit of the pain with the rest of the budget within the Space Station program.

It's a plain, simple, straightforward amendment. We're devastating, we're cannibalizing a host of other programs. As we go to our other Committees that we sit on, and we're trying to make tough cuts to balance the budget, certainly the Space Station should not be immune from those cuts. So it's a very, very simple amendment, and we'll see if we can't get more than 11 votes, Mr. Chairman, for a little bit more well—to move toward a balanced budget.

I yield back the balance of my time.

Mr. SENSENBRENNER. Mr. Chairman?

The CHAIRMAN. The gentleman from Wisconsin.

Mr. SENSENBRENNER. This I think can best be described as a trojan horse amendment. One of the problems that NASA has faced over the years is, as budgets have been shaved, $100 million here or a little bit more than that there, that means that NASA has to stretch the program out. NASA doesn't complete the program on time. And, as the program is stretched out and it's delayed, the meter is ticking for the infrastructure that is needed of engineers and the like in order to get the program through to completion, and that results in cost overruns.

We have capped the Space Station program at $2.1 billion a year through assembly complete. We passed the bill unanimously to do that. That's in sync with NASA's budget projections. If we cut back on the Space Station, we're going to end up not getting it done by the year 2002, and that's going to mean that the total cost of completion is going to be much more than the $100 million that the gentleman from Indiana proposes to save until the Space Station is complete.

So this is being pennywise and pound foolish. I would urge the membership of this Committee not to put the trojan horse inside the budget of the Space Station.

I do not impugn the motives of the gentleman from Indiana. He doesn't like the Space Station. That's his prerogative. But I would urge the 33 members who opposed his last amendment to stick

with us on the rest of this so that we can get the Space Station done on time and on budget.

The adoption of Mr. Roemer's amendment will assure that neither happens.

I yield back the balance of my time.

The CHAIRMAN. Does any other member seek to be recognized?

[No response.]

The CHAIRMAN. If not, the Chair will put the question.

Those in favor of the amendment will say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed will say no.

[Chorus of noes.]

The CHAIRMAN. In the opinion of the Chair, the noes have it.

Mr. ROEMER. Roll call, Mr. Chairman.

The CHAIRMAN. The gentleman wishes a roll call.

The Clerk will call the roll.

The CLERK. Mr. Walker?

The CHAIRMAN. No.

The CLERK. Mr. Walker votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Boehlert?

[No response.]

The CLERK. Mr. Fawell?

Mr. FAWELL. No.

The CLERK. Mr. Fawell votes no.

Mrs. Morella?

Mrs. MORELLA. No.

The CLERK. Mrs. Morella votes no.

Mr. Weldon of Pennsylvania?

[No response.]

The CLERK. Mr. Rohrabacher?

[No response.]

The CLERK. Mr. Schiff?

[No response.]

The CLERK. Mr. Barton?

Mr. BARTON. No.

The CLERK. Mr. Barton votes no.

Mr. Calvert?

[No response.]

The CLERK. Mr. Baker?

Mr. BAKER. No.

The CLERK. Mr. Baker votes no.

Mr. Bartlett?

Mr. BARTLETT. No.

The CLERK. Mr. Bartlett votes no.

Mr. Ehlers?

Mr. EHLERS. No.

The CLERK. Mr. Ehlers votes no.

Mr. Wamp?

Mr. WAMP. Yes.

The CLERK. Mr. Wamp votes yes.

Mr. Graham?

Mr. GRAHAM. No.
The CLERK. Mr. Graham votes no.
Mr. Salmon?
Mr. SALMON. No.
The CLERK. Mr. Salmon votes no.
Mr. Weldon of Florida?
Mr. Dave WELDON. No.
The CLERK. Mr. Weldon votes no.
Mr. Davis?
[No response.]
The CLERK. Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no.
Mr. Gutknecht?
[No response.]
The CLERK. Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no.
Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no.
Mr. Largent?
Mr. LARGENT. Aye.
The CLERK. Mr. Largent votes yes.
Mr. Hilleary?
Mr. HILLEARY. Yes.
The CLERK. Mr. Hilleary votes yes.
Mrs. Cubin?
[No response.]
The CLERK. Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no.
Mrs. Myrick?
Mrs. MYRICK. Yes.
The CLERK. Mrs. Myrick votes yes.
Mr. Brown?
Mr. BROWN. Mr. Brown votes yes.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
Mr. VOLKMER. No.
The CLERK. Mr. Volkmer votes no.
Mr. Hall?
Mr. HALL. No.
The CLERK. Mr. Hall votes no.
Mr. Gordon?
Mr. GORDON. Aye.
The CLERK. Mr. Gordon votes yes.
Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. No.
The CLERK. Mr. Tanner votes no.
Mr. Roemer?
Mr. ROEMER. Aye.

The CLERK. Mr. Roemer votes yes.
Mr. Cramer?
Mr. CRAMER. No.
The CLERK. Mr. Cramer votes no.
Mr. Barcia?
Mr. BARCIA. No.
The CLERK. Mr. Barcia votes no.
Mr. McHale?
Mr. MCHALE. No.
The CLERK. Mr. McHale votes no.
Ms. Harman?
Ms. HARMAN. No.
The CLERK. Ms. Harman votes no.
Ms. Johnson?
Ms. JOHNSON. No.
The CLERK. Ms. Johnson votes no.
Mr. Minge?
Mr. MINGE. Yes.
The CLERK. Mr. Minge votes yes.
Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes.
Mr. Hastings?
Mr. HASTINGS. No.
The CLERK. Mr. Hastings votes no.
Ms. Rivers?
Ms. RIVERS. Yes.
The CLERK. Ms. Rivers votes yes.
Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
Mr. WARD. No.
The CLERK. Mr. Ward votes no.
Ms. Lofgren?
Ms. LOFGREN. No.
The CLERK. Ms. Lofgren votes no.
Mr. Doggett?
Mr. DOGGETT. No.
The CLERK. Mr. Doggett votes no.
Mr. Doyle?
Mr. DOYLE. Yes.
The CLERK. Mr. Doyle votes yes.
Ms. Jackson Lee?
Ms. JACKSON LEE. No.
The CLERK. Ms. Jackson Lee votes no.
Mr. Luther?
Mr. LUTHER. Yes.
The CLERK. Mr. Luther votes yes.
The CHAIRMAN. Are there members who haven't been recorded?
Mr. Davis?
Mr. DAVIS. No.
The CLERK. Mr. Davis votes no.
The CHAIRMAN. Mr. Gutknecht?
Mr. GUTKNECHT. Mr. Gutknecht votes no.

The CLERK. Mr. Gutknecht votes no.

Mr. CALVERT. Mr. Calvert votes no.

The CLERK. Mr. Calvert votes no.

The CHAIRMAN. Mr. Weldon of Pennsylvania?

Mr. CURT WELDON. No.

The CLERK. Mr. Weldon of Pennsylvania votes no.

The CHAIRMAN. Are there other members that have not yet been recorded?

[No response.]

The CHAIRMAN. If not, the Clerk will report.

The CLERK. Mr. Chairman, the roll call vote is yes 13, no 31.

The CHAIRMAN. The amendment is not agreed to.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********** ROLL CALL

Subject: Amendment by Mr. Roemer #5 Date: 4-24-96
to reduce funding for Space Station

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY				–	
2159	53515	Mr. Fawell, R-IL				3	
106	55341	Mrs. Morella, R-MD				4	
2452	52011	Mr. Curt Weldon, R-PA				31	
2338	52415	Mr. Rohrabacher, R-CA					
2404	56316	Mr. Schiff, R-NM					
2264	52002	Mr. Barton, R-TX				5	
1034	51986	Mr. Calvert, R-CA				32	
1724	51880	Mr. Baker, R-CA				6	
322	52721	Mr. Bartlett, R-MD				7	
1717	53831	Mr. Ehlers, R-MI				8	
423	53271	Mr. Wamp, R-TN			1		
216	53671	Mr. Dave Weldon, R-FL				11	
1429	55301	Mr. Graham, R-SC				9	
115	52635	Mr. Salmon, R-AZ				10	
415	51492	Mr. Davis, R-VA				29	
417	56565	Mr. Stockman, R-TX				12	
425	52472	Mr. Gutknecht, R-MN				30	
1216	53601	Mrs. Seastrand, R-CA				13	
1319	56216	Mr. Tiahrt, R-KS				14	
410	52211	Mr. Largent, R-OK			2		
114	56831	Mr. Hilleary, R-TN			3		
1114	52311	Mrs. Cubin, R-WY				–	
506	55792	Mr. Foley, R-FL				15	
509	51976	Mrs. Myrick, R-NC			4		
2300	56161	Mr. Brown, D-CA			5		
2409	52956	Mr. Volkmer, D-MO				16	
2236	56673	Mr. Hall, D-TX				17	
2201	54231	Mr. Gordon, D-TN			6		
2446	55261	Mr. Traficant, D-OH				–	
1127	54714	Mr. Tanner, D-TN				18	
407	53915	Mr. Roemer, D-IN			7		
236	54801	Mr. Cramer, D-AL				19	
1410	58171	Mr. Barcia, D-MI				20	
217	56411	Mr. McHale, D-PA				21	
325	58220	Ms. Harman, D-CA				22	
1123	58885	Ms. Johnson, D-TX				23	
1415	52331	Mr. Minge, D-MN			8		
1027	55335	Mr. Olver, D-MA			9		
1039	51313	Mr. Hastings, D-FI				24	
1116	56216	Ms. Rivers, D-MI			10		
1232	54535	Ms. McCarthy, D-MO				–	
1032	55401	Mr. Ward, D-KY				25	
118	53072	Ms. Lofgren, D-CA				26	
126	54865	Mr. Doggett, D-TX				27	
1218	52135	Mr. Doyle, D-PA			11		
1520	53816	Ms. Jackson Lee, D-TX				28	
1419	52271	Mr. Luther, D-MN			12		
					12	32	

Attest: _____(Clerk)

Mr. ROEMER. Mr. Chairman, do you think if I went down to about $2 million, I might get a little closer?

[Laughter.]

The CHAIRMAN. Mr. Bartlett?

Mr. BARTLETT. Mr. Chairman, I have an amendment in the packet.

The CHAIRMAN. The gentleman is recognized.

[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT

OFFERED BY MR. BARTLETT OF MARYLAND

AND MS. HARMAN OF CALIFORNIA

Page 26, lines 4 through 7, strike "Notwithstanding" and all that follows through "Planet Earth.".

Mr. BARTLETT. Mr. Chairman, you indicated if I made my presentation brief, you would accept the amendment.

Let me make it very brief.

I join my colleague from across the aisle to offer an amendment to the authorizing language included in Section 212 of the NASA Title, specifically on Mission to Planet Earth.

Our amendment is simple. It deletes the last sentence of the Mission to Planet Earth paragraph on page 26.

Let me read the sentence that we would delete.

"Notwithstanding any other provision of law, funds in excess of those authorized by this paragraph may not be obligated for Mission to Planet Earth."

Mr. Chairman, this is the only place in this bill that this language occurs. In the interest of fairness, we should either apply this language to all parts of the bill or we should apply it to none.

Since I doubt that this Committee would want to apply this language to all parts of the bill, our amendment is very simple, and it simply suggests that we delete it here.

Thank you very much.

I yield back the balance of my time.

The CHAIRMAN. Ms. Harman?

Ms. HARMAN. Thank you, Mr. Chairman. I have a statement that I'd like to insert in the record at this point.

The CHAIRMAN. Without objection.

[The prepared statement of Ms. Harman follows:]

STATEMENT OF REPRESENTATIVE JANE HARMAN IN SUPPORT OF THE BARTLETT/HARMAN AMENDMENT, HOUSE SCIENCE COMMITTEE, MARKUP OF OMNIBUS CIVILIAN AUTHORIZATION ACT OF 1996

Mr. Chairman, I move to strike the last word and voice my strong support for the amendment which I am cosponsoring with Mr. Bartlett of Maryland.

As I have said earlier, this is just the beginning of the road for Mission to Planet Earth in Fiscal Year 1997. By striking this unduly restrictive language from the bill today, we are sending a clear signal to other Committees in the House and Senate that there is strong, bipartisan support for Mission to Planet Earth on this Committee.

Mission to Planet Earth is critical to provide us with a better scientific understanding of global climate change. The PM-1 and Chem-1 missions are crucial ingredients in this program. Not a single witness testified before this Committee that PM-1 and Chem-1 should be canceled. In fact, Aram M. Mika testified that "the cost and risk of developing entirely new instruments and spacecraft would surely increase the cost of the current EOS program."

Without basis in the record, the Committee has announced that PM and Chem must go. This runs counter to the recommendations of the National Research Council study which was commissioned by Chairman Walker.

By passing the Bartlett/Harman amendment today, we pave the way for others in Congress to heed the NRC's recommendations to implement PM and Chem without delay—recommendations which apparently were summarily dismissed by Chairman Walker.

I urge support for this amendment, and for a stronger Mission to Planet Earth.

Ms. HARMAN. I would simply like to join Mr. Bartlett in bipartisan fashion in supporting this amendment on the basis of fairness.

I yield back the balance of my time.

The CHAIRMAN. Are there other members who wish to be heard on the amendment?

[No response.]

The CHAIRMAN. If not, the Chair is prepared to accept the amendment and would put the question.

Those in favor of the amendment say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed say no.

[No response.]

The CHAIRMAN. The ayes have it, the amendment is agreed to.

The CHAIRMAN. Are there other amendments to Title II?

Ms. JACKSON LEE. I have an amendment at the desk.

The CHAIRMAN. Did the gentlelady have it in the package for consideration?

Ms. JACKSON LEE. It's at the desk, it's not in the packet, Mr. Chairman. It's not in the packet, Mr. Chairman, it's at the desk.

The CHAIRMAN. The gentlelady is recognized, and the Clerk will distribute the amendment. The gentlelady is recognized.

[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY JACKSON LEE

Page 30, after line 13, insert the following new section:

1 SEC. 218. EARTH OBSERVING SYSTEM IMPLEMENTATION.

2 (a) FINDING.—The Congress finds that the National
3 Research Council's 1995 review of the Earth Observing
4 System and Mission to Planet Earth validated the sci-
5 entific requests and priorities of the Mission to Planet
6 Earth program.

7 (b) IMPLEMENTATION.—Notwithstanding any other
8 provision of this Act, the National Aeronautics and Space
9 Administration should implement the recommendations of
10 the National Research Council's 1995 review of the Earth
11 Observing System and Mission to Planet Earth, including
12 the recommendations that "NASA should implement most
13 of the near-term components of the MTPE/EOS, includ-
14 ing Landsat 7, AM–1, PM–1, and the Tropical Rainfall
15 Measuring Mission (TRMM), without delay or reduction
16 in overall observing capability", and that "Chemistry-1
17 mission should not be delayed".

Amend the table of contents accordingly.

Ms. JACKSON LEE. Thank you, Mr. Chairman.

Can I have unanimous consent that the amendment be accepted as read?

The CHAIRMAN. We'll give unanimous consent that the amendment be considered.

Ms. JACKSON LEE. Be considered as read. Excuse me. You haven't read it yet. I'm sorry, Mr. Chairman.

The CHAIRMAN. I've read it. I'm not sure that I like it, but I've read it.

Ms. JACKSON LEE. Well I think if you read it more, you'll like it more.

[Laughter.]

Ms. JACKSON LEE. Am I on, should I go, or should I allow people to read it?

The CHAIRMAN. I recognize the gentlelady for five minutes.

Ms. JACKSON LEE. Thank you, Mr. Chairman.

Let me say, Mr. Chairman, that I think I'm striking a real chord of conciliation and opportunity for bipartisanship.

The key to this amendment simply says that the National Aeronautics and Space Administration should implement the recommendations of the National Research Council's 1995 review of the earth observing system and Mission to Planet Earth, meaning that we should not have another study but go forward.

Mr. Chairman, the amendment I'm offering deals with a matter which, in the words of Dr. Ed Frieman, is of immense importance to the future welfare of our country and the world.

In addition, Dr. Frieman stated, during a hearing of this very Committee, that the program, the Global Change Program that's NASA's Mission to Planet Earth are fundamentally sound, scientific programs which we believe are of immense importance to the future welfare of our country and the world.

NASA's Mission to Planet Earth is a program with the goals of preserving and improving the earth's environment for future generations.

This is an appropriate reinstitution, if you will, during this week that we all are celebrating planet earth and the environment.

In NASA's strategic plan, dated February of this year, the Mission to Planet Earth is described as being dedicated to understanding the total earth system and the effects of natural and human induced changes on the global environment.

If I may be so bold, I'd like to remind the Chairman and my colleagues that all of these things are principles to which the Chairman has given his support in statements and writings many times in the recent past.

The Mission to Planet Earth has a rich heritage which extends back to the early 1980s. It has solid support by three different administrations starting with President Reagan.

Since the program's approval by Congress in 1990, this ambitious but important program has been reviewed, rescoped and re-base lined many, many times, as I'm sure you're aware. This program has probably undergone more peer review and scrutiny than any other program in NASA's history.

In fact, I think all of us recognize that many, including the Chairman, have commissioned the most recent review of the U.S.

Global Change Research Program and NASA's Mission to Planet Earth by the National Research Council.

In fact, the NRC testified in this very room on March 6th as to the findings of its independent review of the program. And during that hearing, this review was endorsed by the Chairman and others that the Council's findings made sense.

Succinctly, those findings and recommendations were that NASA should implement the near term components of EOS including AM-1, PM-1, and TRMM, without delay or reduction in overall observing capability.

When Dr. Frieman testified before us, he stated unequivocally, "So let me then state my conviction that the program, the Global Change Program and NASA's Mission to Planet Earth are fundamentally sound, scientific programs."

I would remind my colleagues that not only has NASA transformed Mission to Planet Earth from a $17 billion program to a $6 billion program with a focus on improving better technologies, more efficiencies and of course dealing with commercial purchasing opportunities.

They have attempted to make this program extremely effective.

I would hope that we could move forward and assume that the Mission to Planet Earth and recognize that it is a program that's constructive and productive.

I am concerned that suddenly many of my Republican colleagues have gotten the environmental bug and yet are not prepared to support this very vital program, the Mission to Planet Earth.

As was noted, we yesterday voted 407 to zero to support the Coastal Zone Management Act, yet it doesn't appear that we want to fund it.

If we are concerned about our environment and concerned about the atmosphere, the Mission to Planet Earth program is particularly one that we should support and have move forward.

There's been some talk that we don't know what will happen in the outyears with the extensive NASA budget and that we should be concerned by cutting important programs like the Mission to Planet Earth.

Mr. Chairman, if I might just have us think seriously. We recognize that not many in the Administration and not many here at this table have really agreed to the outyear budgeting numbers. We realize that we will have to come back to the table, either to increase those numbers or to face reality that all these programs will be terminated.

So if we are talking about not pursuing Mission to Planet Earth because we are concerned about saving dollars for the outyears, let's be real and address the Mission to Planet Earth program now today, as a valuable environmental program that responds to very crucial needs of our society.

And if we are to be very real, let's be real in acknowledging that we are environmentalists to the extent of being realistic environmentalists, fiscally minded environmentalists, and serious environmentalists, and support moving forward on the Mission to Planet Earth program in a bipartisan manner.

So I thank you, Mr. Chairman.

[The prepared statement of Ms. Jackson Lee follows:]

STATEMENT OF CONGRESSWOMAN JACKSON LEE

HOUSE SCIENCE COMMITTEE

Mr. Chairman, the amendment I am offering deals with a matter which is, in the words of Dr. Edward Frieman,

"... of immense importance to the future welfare of our country and the world."

In addition, Dr. Frieman stated, during a hearing of this very committee, that

"...the program, the global change program, and NASA's Mission to Planet Earth, are fundamentally sound scientific programs which we believe are of immense importance to the future welfare of our country and the world."

Mr. Chairman, NASA's Mission to Planet Earth is a program with the goals of preserving and improving the Earth's environment for future generations. In NASA's strategic plan, dated February of this year, the Mission to Planet Earth is described as being

"dedicated to the understanding the total Earth system and the effects of natural and human-induced changes on the global environment."

And if I may be bold, I would like to remind the Chairman and my colleagues that all of these things are principles to which the Chairman has given his support in statements and writings many times in the recent past.

The Mission to Planet Earth has a rich heritage which extends back to the early 1980's and has had solid support by three different Administrations, starting with President Reagan. Since the program's approval by Congress in 1990, this ambitious but important program has been reviewed, rescoped and rebaselined many many times as I'm sure you are aware; this program has probably undergone more peer review and scrutiny than any other program in NASA's history. In fact, Mr. Chairman, you yourself commissioned the most recent review of the U.S. Global Change Research Program and NASA's Mission to Planet Earth by the National Research Council. And in fact, the NRC testified in this very room on March 6th as to the findings of its independent review of the program; and during that hearing Mr. Chairman, you ENDORSED the council's findings. Succinctly, those findings and recommendations were that NASA should implement the near-term components of EOS including AM-1, PM-1, and TRMM, without delay or reduction in overall observing capability. When Dr. Frieman testified before us on March 6th, he stated unequivocally:

"So let me then state my conviction that the program, the global change program and NASA's Mission to Planet Earth, are fundamentally sound scientific programs which we believe are of immense importance to the future welfare of our country and the world."

I would also remind my colleagues that not only NASA has transformed Mission to Planet Earth from a $17 Billion to less than a $6 Billion program, it continues its evolution with an eye toward opportunities for better technologies, more efficiencies and commercial purchasing opportunities. The changes that this program has undergone are indicative of the major changes that NASA as a whole has undergone, and I believe it demonstrates the understanding of the program's managers of what needs to be done to accomplish its goals in an cost effective and scientifically useful manner.

Now, having established that we all endorse MTPE and its goals, that leaves us with the question of why, in the NASA budget that Chairman Walker is proposing, there are devastating cuts Mission to Planet Earth on the order of approximately $374 Million. In the bill we have before us, the PM-1 and Chem-1 spacecraft are completely obliterated. Deleted. Gone. As far as I'm concerned, that is a funny way to demonstrate your support for a program. However, this should not surprise us, since this is the same pattern with Republican members that we have recently seen throughout this Congress. Suddenly, many Republican members have gotten that good 'ol environmental religion and are visiting zoos, taking nature walks and portraying themselves as environmentally friendly. Why, just yesterday, this House reauthorized the Coastal Zone Management Act, by a vote of 407 to 0, but the funny thing is there is no money in this legislation for it. This seems to be yet another example of "endorse it but don't fund it."

After an entire year of attempting to roll back much of the environmental progress this country has made, Republican members have discovered that the public doesn't agree with its agenda. As a result, we have the speaker advising his members how to appear environmentally friendly. Well Mr. Chairman, deeply cutting environmental R&D, prohibiting agencies from even doing such work, and

eliminating two of MTPE's major spacecraft in no way makes individuals on that side of the aisle appear environmentally "friendly."

Members of Congress have repeatedly expressed their belief that there must be a scientific basis for environmental regulations. The U.S. Global Change research Program and Mission to Planet Earth are designed to do just that. However, they can't do it if we don't fund it. How else are we able to rationally create reasonable regulations if this bill specifically prevents agencies from doing the research?

The chairman has said one reason for the gutting of the Mission to Planet Earth program was because of his concern about NASA's budget in future years. Considering the following:

1) Every person in the administration has enthusiastically disowned the NASA budget numbers for the out-years,

2) NASA's projected budget has varied wildly over the past several years,

3) Economists cannot project economic data 7 months, much less 7 years in advance,

4) Mr. Goldin, NASA, and the people of this nation should not be punished for a projected budget which no one believes to be real or even valid, May I make the crazy suggestion of dealing with NASA's budget only for fiscal year 1997?

Mr. Chairman, Mission to Planet Earth has been resized, reworked and refocused enough. Let's fully fund this program and allow the scientists and engineers to continue their work on this very important program.

The CHAIRMAN. The time of the gentlelady has expired.

Ms. JACKSON LEE. Thank you, Mr. Chairman.

I ask for bipartisan support of this amendment.

The CHAIRMAN. Mr. Sensenbrenner?

Mr. SENSENBRENNER. Listening to the gentlewoman from Texas, one would think that the majority's being extremely parsimonious on the Mission to Planet Earth.

Nothing could be further from the truth.

The mark that we are discussing here today provides over a billion dollars in Fiscal Year 1997 for Mission to Planet Earth. That is not an inconsequential sum of money.

The concern that I have is that the adoption of the gentlewoman from Texas' amendment will either bust the budget because it costs $204.6 million, just in Fiscal Year 1997, or if it doesn't bust the budget, and we are required to have offsets, it will end up ruining the science programs that NASA has been so successful with and which have achieved significant bipartisan support in this Committee.

Now the National Research Council has got a limited scope. They look at the science that is being proposed in various government programs. Their charge is specifically not to look at the budget applications.

So by adopting the National Research Council's recommendations in total, in effect, we are throwing our concern about the budget, including the discretionary spending cap which President Clinton put on discretionary spending in 1993, completely in the wastebasket.

I don't think that we can operate in this type of vacuum.

Now looking at what the NRC had to say, they found room for improvements in the current plan which the gentlewoman from Texas' amendment completely ignores.

We fully fund the AM-1 earth observing system. There's no change in the recommendations for Fiscal '97 that has come from the President. That was in the NRC recommendation. We adopt that.

Landsat-7, no cut in funding. That was in the NRC recommendation. We adopt that as well.

They found significant room for improvement in the Chem-1 program. That's where a major difference is. We don't fund the Chem-1 program. We want NASA to come up with those significant improvements rather than going ahead with the program that the NRC said needed improvement in order to have good science.

And they also suggested that we reorganize the EOS/DIS program. Apparently the gentlewoman from Texas' amendment fully funds that, even though the NRC said that it needed to be reorganized.

We do not, we reduced the EOS/DIS program by approximately one-half. I would implore the members of this Committee to start looking at what is in Mission to Planet Earth. The fact that we are looking at what the NRC is saying and using our fiscal powers to force the reorganization that the NRC is saying, rather than willy nilly going ahead, appropriating funds and authorizing funds, either busting the budget or ending up wrecking the science program.

I would urge a no vote and yield back the balance of my time.

The CHAIRMAN. Are there other members who wish to be recognized?

The gentleman from California.

Mr. BROWN. Mr. Chairman, I wish to be recognized in order to support Ms. Jackson Lee's amendment.

I have thought for some time that the Chair was being disingenuous when he asked for the NRC to give a report on the Mission to Planet Earth and then totally disregarded it in his structuring of his mark for the NASA budget.

The mark that's in the bill that's before us, the underlying bill, cuts almost $400 million from Mission to Planet Earth. That was not just coincidence. It was the opposite of what the National Research Council report recommended.

Ms. Jackson Lee's amendment seeks to restore some but not all of that rather drastic cut. But we all understand, I think, that this is a subject which is highly polarizing and not just for budgetary reasons because it is not something that is going to break the budget.

The Mission to Planet Earth program has been restructured in a massive way nearly half a dozen times, each time reducing the cost both in the present and in the outyears.

It has now been restructured so often that there's very little more that you can do to restructure it and still maintain the continuity of the data stream and the quality of the data which was originally contemplated in order to produce the scientific results that we need.

I think it is very clear that there are some who don't want to see that scientific data received and properly used because they think it might lead to regulatory programs which they would not approve of.

So I do not expect that we will win on this amendment. I however want to make sure that the underlying facts are thoroughly presented so that we will understand that this is a program which the majority wishes to squash in every way possible, disregarding what the National Research Council says, even though they requested the study.

Ms. JACKSON LEE. Would the gentleman yield?

Mr. BROWN. Yes, I'll be glad to yield.

Ms. JACKSON LEE. I thank the Ranking Member for his comments and I wanted to respond to the gentleman from Wisconsin's comment about busting the budget.

I guess the question is, whose budget are we busting, when in fact the head of the program recognized that there would have to be efforts at making savings but made a real commitment to suggesting that this is a vital program.

By what we're doing in the existing Walker amendment or Walker legislation, we are in fact not giving a real commitment to this program and what we're attempting to do here is to follow what I understand to be our commitment to a program, such as Mission to Planet Earth, and in fact realistically not busting any budget which would be able to obviously manage in accordance through the funding that is being provided and also the study that was offered and approved by the Chairman.

Mr. BROWN. I thank the gentlelady for her comments.

The bottom line is that the Walker bill cuts this program by 27 percent, nearly $400 million. The motivation is not based upon any scientific review of the scientific review.

In recommending funding it, the members of the Review Committee said they were aware of the budget problems, and made their recommendations nevertheless. I just want to indicate again this is going to be debated on the Floor and in every other forum because we think we're right on this side. We think the public supports this and of course we will go down gracefully to defeat, but we will call it to the attention of the public when the election comes in November.

Mr. VOLKMER. Will the gentleman yield?

The way I remember the NRC report, if I remember right, they recommended that NASA should implement not just Landsat-7, and AM-1, but also PM-1. Is that correct?

Mr. BROWN. Right.

Mr. VOLKMER. And that the TRMM, the Tropic Rainfall Measuring Mission, should be done without delay, and Chem-1 should not be delayed. I mean this cut actually basically cuts about half out of what the National Research Council said should be done.

Mr. BROWN. I think the gentleman is essentially correct. Of course the Majority will try to say that even with a cut of nearly $400 million, they'll do all the things that are necessary.

That's not true.

Mr. VOLKMER. It depends on what you think is necessary.

I support the amendment of the gentlelady from Texas.

Mr. ROHRABACHER. Mr. Chairman?

You know, I don't know if that agency or group that you're talking about that supported full funding or not told us exactly where we were going to cut funding in order to balance the budget.

The bottom line is we keep hearing witnesses come before us and these scientific experts who basically will not tell us what their priorities are.

I can't tell you how many witnesses we've had come before my subcommittee and I say, okay, tell me what your highest priority is in terms of spending, tell me what your lowest priority is, and

they can always tell us what priorities we should have and what should be full funded.

But they are never willing to say anything about what shouldn't be funded. And if there's anything that shouldn't be funded in terms if we're going to have to cut into other programs, other space-related programs, this is where it should come.

If you have voted against the Space Station, as Mr. Roemer has voted against it, maybe you might feel justified in saying, look, I've told them what my priorities are. I'd rather do Mission to Planet Earth than the Space Station.

But if you haven't done that, we've got to be able to set priorities or this idea that we believe in a balanced budget isn't going to be taken seriously by anybody. And we can't turn to, quote, the scientific experts to tell us this needs to be fully funded because they will tell you anything that pays for their mortgage deserves to be fully funded.

And that's where it comes down.

There has been in this program, Mission to Planet Earth, there has been a lot of resistance over the last couple years to reforms in the program that would bring down the cost of Mission to Planet Earth itself using smaller satellites, etcetera.

But what we've got to determine is, are we going to let this program go forward and just suck money out of all the other scientific programs because there's no better example than that than Mission to Planet Earth.

So although I certainly sympathize with those who say maybe there's some good information we could get out of this, we have to say to ourselves what's our priority, what has the least benefit.

And as far as I'm concerned, Mission to Planet Earth is where we should make the cuts in order for all the rest of the programs to survive.

Thank you very much, Mr. Chairman.

I yield back the balance of my time.

The CHAIRMAN. Mr. Roemer?

Mr. ROEMER. Thank you, Mr. Chairman.

I'd like to associate myself with the gentleman's remark that he just made, from California.

My dad used to say, you can't have something for nothing. Whether it's in this Committee or in the budget, we keep on wanting to put everything in the budget and not make tough priority choices and live up to the fact that we have to cut some things and disappoint some people to balance the budget.

Now the gentlelady from Texas I greatly respect and agree with her on almost everything in this amendment. I like Earth Observing System, I agree with the Mission to Planet Earth. Both of those programs are drastically cut under this bill.

PM-1 is delayed, it probably means it will be cut. Chemistry-1 is delayed. It probably means it's never going to get funded. I don't know how you can do the truth in budgeting here and say I'm for all these things. And then not cut something somewhere else or offset something or vote to cut the Space Station or do something so that there is some truth in this amendment.

So while I support the gentlelady's intent and probably agree with her on the priority of these programs, I just have to say that

I'll vote against the amendment because there's not enough money in our NASA budget to fund all these without having to make some tough choices.

And I yield back the balance of my time.

The CHAIRMAN. Are there other members who wish to be recognized on the amendment?

Mr. Salmon?

Mr. SALMON. Thank you, Mr. Chairman.

We can do the Mission to Planet Earth faster, cheaper, and better by leveraging the investments of the private sector in commercial remote sensing. NASA is already working to create public/private partnerships but it can do more.

In fact, at Stennis Space Center, which develops such partnerships, they're conducting a pilot program in Scottsdale, Arizona and the City of Scottsdale is demonstrating how remote sensing technology can be used for everything from city planning to containing forest fires, which they did very adequately most recently, and I believe I shared that information with you.

Widespread use of this technology, which can only occur through commercialization, will lead to great operational cost savings and improve local planning.

As the strategic plan for the Mission to Planet Earth states, their ultimate measure of strategic success is useful information provided to those with the responsibility to act. Reducing out your cost is dependent upon pushing NASA harder in this direction.

Therefore, we must encourage the agency to shift its focus from building hardware such as EOS to acquiring data through leveraging the private sector where appropriate. This bill does that.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

The Chair wishes to try to put a little bit of fact into the debate here.

The Chair, as always, regrets when the gentleman from California chooses to personalize this and become pejorative on it, and particularly accuse the Chair of disingenuous behavior, and I think at one point of not telling the truth.

I think that this debate can be held on a higher plane than that. Let's review exactly where we are on all of this.

First of all, NRC did not do a selective job, as is done in this amendment, of looking at the program and the NRC suggested a streamlining of the Chem-1 spacecraft program. And they suggested a reorganization of the EOS/DIS program.

That's exactly the direction in which we are trying to head in our policies. We have not ignored what the NRC did. We think that we ought to be implementing what the NRC did and that's exactly where this amendment goes astray.

The fact is that NRC does not make budgetary recommendations as a matter of internal policy. NRC did not consider available funding for the Mission to Planet Earth and NASA in Fiscal Year 1997 or in any of the outyears and NRC did not examine other options for achieving the science goals of the Mission to Planet Earth.

Now if you take a look at what NRC said were the priorities and then you take a look at what we've included in the budget, what

you will find is that NRC says we've got to do AM-1. We include AM-1 in the budget.

They said we ought to do Landsat-7. We include Landsat-7 in the budget. They said we ought to do TRMM, the Tropical Rain Forest Measurement. We include that in the budget. They said we ought to do PM-1. We include the PM- 1 instruments in the budget and direct NASA to review some options for putting those instruments into space in a more economical way.

Now there's a question, and the gentlelady in her amendment suggests we go ahead with Chem-1, the mission should not be delayed. That's a $1.3 billion spacecraft that no one knows at the present time how we're going to pay for it in the outyears.

You know, you can talk about this, but the fact is, you've got some commercial options, you've got the energy people coming to us and telling us they can fly a whole constellation of satellites that will gather this quality of data for $350 million.

We just think before you proceed ahead with a $1.3 billion satellite that maybe we ought to have a little bit better information, and then do what the NRC said we should do, that is, review and streamline that particular spacecraft program.

Ms. HARMAN. Mr. Chairman, would you yield?

The CHAIRMAN. Would you allow me to finish my statement? I've listened to all this, including people claiming that I was lying. The gentleman from California said I didn't tell the truth.

Now the reorganization of the EOS/DIS program isn't even mentioned in the gentlelady's amendment. She suggested that we ought to just kind of proceed ahead with EOS/DIS.

One of the recommendations of NRC is that that program should be reorganized. There is pork barrel in that program that would make you cry.

In fact, when I talked to the NRC, they were able to tick off places that ought to be totally eliminated from the program, that have no scientific justification whatsoever from them. And under the gentlelady's amendment, we'd go ahead and put all of those into place.

So we think by spending a billion dollars on the Mission to Planet Earth program, we're moving in the right direction. I'm for that program. I was for it at the outset, I'm for it now. I just think that it ought to be done within the scope of that which we can afford.

Now let me give you the problem if you don't begin to think about some of these things. I think the gentleman from Indiana is right in this regard.

If you take a look at the space science accounts out at the OMB program and into the outyears, what you find is that in Fiscal Year 1996 in space science, we spend a little over $2 billion. Their projections have us, by the year 2000, going down to $1.6 billion. Meantime, the Mission to Planet Earth goes from $1.2 billion up to $1.5 billion.

Now if you don't think that this is all coming out of the hide of space science, all you have to do is take a look at the figures. And that's not the worst of it. That's based upon the most optimistic projections from OMB.

If you take the pessimistic projections that are figured in when you take real CBO numbers, the cut in space science could be an-

other $962 million. You could get down under a billion dollars in space science under this projection, while you continue to—the Mission to Planet Earth.

I think Mission to Planet Earth has to be done but it has to be done right. We are trying, as far as we can, to follow the NRC recommendations in this regard. We think that's what we're doing. We think there are improvements that can be made in the program, and we ought to proceed ahead with the budget that recognizes those improvements.

That's what this is all about. I'm disappointed that the gentlelady only went halfway with her amendment and suggested we do the expensive things, and also suggested we follow NRC only where she wants to follow NRC.

My time is up. I'll be happy to recognize the gentlelady from California.

Ms. HARMAN. Thank you, Mr. Chairman.

I think some of the points that you and Mr. Sensenbrenner have made about the NRC study, especially the fact that the authors of it were not asked to recommend on budgetary issues, are correct.

However, when we are talking about the recommendations of the study, I think we ought to put all the recommendations into the record, and I would just like to read the last sentence of the last recommendation which says that the authors note an overall need to simplify and focus the Chem-1 mission and thereby reduce its costs and complexity must be recognized. That's their English, not mine.

However, quote, the Chem-1 mission should not be delayed, unquote.

I think the record should reflect this.

I wish that the gentlewoman's amendment were confined to the findings of the bill rather than the action part, but I am going to support it nonetheless because I so strongly support Mission to Planet Earth.

[The recommendations referred to follow:]

FINDINGS AND RECOMMENDATIONS

technology that employs current technology while investing in the development of new technology with clear applications to support the program's specific scientific priorities.

- NASA should implement most of the near-term components of MTPE/EOS, including Landsat 7, AM-1, PM-1, and the Tropical Rainfall Measuring Mission (TRMM) without delay or reduction in overall observing capability.
- In situ observational programs, process studies, and large-scale modeling activities should be expanded (e.g., through coordinated field programs focused on high-priority scientific issues and utilization of advances in technology).
- NASA should develop advanced technologies to reduce the costs of continuing the essential observations initiated by the AM-1, PM-1, and Chem-1 missions.
- Because global mapping of tropospheric ozone is central for understanding and monitoring changes in the chemistry of the troposphere, the tropospheric component of the Chemistry-1 mission should be focused on global measurements of tropospheric ozone and its precursors in conjunction with the international ozone network.
- NASA should evaluate the capabilities of both space-based and in situ approaches to define the best scientific framework for obtaining critical information on ozone precursors in order to interpret tropospheric ozone trends. This evaluation must involve a wide spectrum of the scientific community. In addition, the evaluation should consider the critical aspects of the coupling between the chemistry of the troposphere and the stratosphere and the contributions from

the European ENVISAT mission. An overall need to simplify and focus the Chem-1 mission and thereby reduce its cost and complexity must be recognized; however, the Chemistry-1 mission should not be delayed.

COORDINATION WITH OTHER SPACE REMOTE-SENSING PROGRAMS

Convergence of observing activities among the programs of U.S. agencies and those of other nations offers the potential for significant savings. However, the current convergence planning process does not have the charter or authority to consider the scientific requirements of USGCRP.

From the NRC report, *A Review of the U.S. Global Change Research Program and NASA's Mission to Planet Earth/Earth Observing System,* 1995, page 21.

Mr. BROWN. Would the gentlelady yield briefly to me?

The CHAIRMAN. The Chairman controls the time.

Mr. BROWN. The Chairman recognized Ms. Harman.

The CHAIRMAN. No, I yielded to Ms. Harman.

Mr. BROWN. My understanding was that you were told your time was up, and recognized her.

The CHAIRMAN. No, I said my time had expired and I said, but before I yielded back my time, I was going to yield to Ms. Harman. That's what I did.

Mr. BROWN. You yielded back time that had already expired then.

The CHAIRMAN. The Chair was trying to be courteous as he ended the debate.

Mr. BROWN. I appreciate the Chair's courtesy.

The CHAIRMAN. We haven't had a lot of that here today.

Mr. BROWN. Mr. Chairman, I ask for recognition.

The CHAIRMAN. The gentleman was already recognized on this amendment. I will be happy——

Mr. VOLKMER. I have not been recognized.

Mr. BROWN. Would the gentleman yield to me briefly?

Mr. VOLKMER. Wait a minute, I haven't been recognized yet.

The CHAIRMAN. I recognize the gentleman.

Mr. VOLKMER. I thank the Chairman.

I first would like to yield to the gentleman from California.

Mr. BROWN. I thank the gentleman for yielding.

Mr. Chairman, let me apologize if I said that you were a liar. In order to lie, it involves both the recognition that you're telling a mistruth and the actual carrying of it out.

I think in your situation you fervently believe everything you say, even though it's wrong. And I have been trying to point that out.

But it is not my intention to describe you as a liar. I think you are a dedicated philosophically driven person who is also a very good debater, and you don't hesitate to make your points which you firmly believe in. I may have stumbled in my efforts to respond. And I will apologize if you felt that I was calling you a liar at any point because I didn't intend to do it.

The CHAIRMAN. You also said I was disingenuous.

Mr. BROWN. I think you are disingenuous.

[Laughter.]

The CHAIRMAN. The gentleman is then engaged in personalities which is exactly what I thought should not be included in the debate.

Mr. BROWN. Mr. Chairman——

Mr. VOLKMER. Mr. Chairman, I have the time.

The CHAIRMAN. The gentleman from Missouri has the time.

Mr. VOLKMER. Mr. Chairman, please, I'd like to yield to the gentlelady from Texas.

Ms. JACKSON LEE. I thank the gentleman from Missouri.

I appreciate the rigor of the debate.

I do think it's important to note that we have seen this program go from $17 billion now to $6 billion. I don't know if we can cite maybe a program that has been revised and downsized.

This particular amendment that I have is revenue neutral. We are suggesting that we go forward with the recommendations that have been offered and to go forward based upon what I have perceived through statements and writings, of the general consensus of this Committee, and its commitment to Mission to Planet Earth.

Why can't we come together on this issue on a revenue neutral amendment which I hope my colleagues will support.

I thank the gentleman from Missouri.

Mr. VOLKMER. Before my time runs out, I would just like to make a brief comment.

The Mission to Planet Earth and Earth Observation are science as well as planetary science. It's just a different type of science but it's still science. And to say that you're moving science from one type of science to another type of science, therefore you're cutting down science is not correct.

Total science will go up onto the budgets I believe. That's what I'd like to see.

Now it's just a question of whether you want to do it on planetary science or do we want to do some of it on the Mission to Planet Earth. It's all science.

So I'm not worried about cutting one to do another.

The CHAIRMAN. I thank the gentleman.

The Chair will put the question.

Those in favor of the amendment say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed say no.

[Chorus of nays.]

The CHAIRMAN. In the opinion of the Chair, the noes have it.

Ms. JACKSON LEE. A roll call.

The CHAIRMAN. The gentlelady requests a roll call.

The Clerk will call the roll.

The CLERK. Mr. Walker?

The CHAIRMAN. No.

The CLERK. Mr. Walker votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Boehlert?

[No response.]

The CLERK. Mr. Fawell?

[No response.]

The CLERK. Mrs. Morella?

Mrs. MORELLA. No.

The CLERK. Mrs. Morella votes no.

Mr. Weldon of Pennsylvania?

Mr. CURT WELDON. No.
The CLERK. Mr. Weldon votes no.
Mr. Rohrabacher?
Mr. ROHRABACHER. No.
The CLERK. Mr. Rohrabacher votes no.
Mr. Schiff?
Mr. SCHIFF. No.
The CLERK. Mr. Schiff votes no.
Mr. Barton?
Mr. BARTON. No.
The CLERK. Mr. Barton votes no.
Mr. Calvert?
Mr. CALVERT. No.
The CLERK. Mr. Calvert votes no.
Mr. Baker?
Mr. BAKER. No.
The CLERK. Mr. Baker votes no.
Mr. Bartlett?
Mr. BARTLETT. No.
The CLERK. Mr. Bartlett votes no.
Mr. Ehlers?
[No response.]
The CLERK. Mr. Wamp?
Mr. WAMP. No.
The CLERK. Mr. Wamp votes no.
Mr. Weldon of Florida?
Mr. Dave WELDON. No.
The CLERK. Mr. Weldon of Florida votes no.
Mr. Graham?
Mr. GRAHAM. No.
The CLERK. Mr. Graham votes no.
Mr. Salmon?
Mr. SALMON. No.
The CLERK. Mr. Salmon votes no.
Mr. Davis?
Mr. DAVIS. No.
The CLERK. Mr. Davis votes no.
Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no.
Mr. Gutknecht?
Mr. GUTKNECHT. No.
The CLERK. Mr. Gutknecht votes no.
Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no.
Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no.
Mr. Largent?
Mr. LARGENT. No.
The CLERK. Mr. Largent votes no.
Mr. Hilleary?
Mr. HILLEARY. No.

The CLERK. Mr. Hilleary votes no.
Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no.
Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no.
Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no.
Mr. Brown?
Mr. BROWN. Mr. Brown votes aye.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
Mr. VOLKMER. Yes.
The CLERK. Mr. Volkmer votes yes.
Mr. Hall?
[No response.]
The CLERK. Mr. Gordon?
Mr. GORDON. Yes.
The CLERK. Mr. Gordon votes yes.
Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes.
Mr. Roemer?
Mr. ROEMER. No.
The CLERK. Mr. Roemer votes no.
Mr. Cramer?
Mr. CRAMER. Yes.
The CLERK. Mr. Cramer votes yes.
Mr. Barcia?
Mr. BARCIA. No.
The CLERK. Mr. Barcia votes no.
Mr. McHale?
Mr. MCHALE. Yes.
The CLERK. Mr. McHale votes yes.
Ms. Harman?
Ms. HARMAN. Yes.
The CLERK. Ms. Harman votes yes.
Ms. Johnson?
Ms. JOHNSON. Yes.
The CLERK. Ms. Johnson votes yes.
Mr. Minge?
[No response.]
The CLERK. Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes.
Mr. Hastings?
Mr. HASTINGS. Yes.
The CLERK. Mr. Hastings votes yes.
Ms. Rivers?
Ms. RIVERS. Yes.

The CLERK. Ms. Rivers votes yes.
Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
Mr. WARD. Yes.
The CLERK. Mr. Ward votes yes.
Ms. Lofgren?
Ms. LOFGREN. Yes.
The CLERK. Ms. Lofgren votes yes.
Mr. Doggett?
Mr. DOGGETT. Yes.
The CLERK. Mr. Doggett votes yes.
Mr. Doyle?
[No response.]
The CLERK. Ms. Jackson Lee?
Ms. JACKSON LEE. Aye.
The CLERK. Ms. Jackson Lee votes yes.
Mr. Luther?
Mr. LUTHER. No.
The CLERK. Mr. Luther votes no.
The CHAIRMAN. Are there members that have not yet been recorded?
Mr. Ehlers?
Mr. EHLERS. Mr. Ehlers votes no.
The CLERK. Mr. Ehlers votes no.
The CHAIRMAN. Are there further members?
Mr. Barcia?
Mr. BARCIA. Yes, Mr. Chairman. Mr. Chairman, if I could, I'd like to change my no vote to a yes.
The CHAIRMAN. Does Mr. Minge wish to be recorded?
Mr. MINGE. Aye.
The CHAIRMAN. Mr. Minge wishes to be recorded as an aye.
The Clerk will report.
The CLERK. The roll call vote is yes 17, no 27.
The CHAIRMAN. The amendment is not agreed to.

COMMITTEE ON SCIENCE - 104TH CONGRESS ******** ROLL CALL**

Subject: Amendment by Ms. Jackson-Lee #(6a) **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY				–	
2159	53515	Mr. Fawell, R-IL				–	
106	55341	Mrs. Morella, R-MD				3	
2452	52011	Mr. Curt Weldon, R-PA				4	
2338	52415	Mr. Rohrabacher, R-CA				5	
2404	56316	Mr. Schiff, R-NM				6	
2264	52002	Mr. Barton, R-TX				7	
1034	51986	Mr. Calvert, R-CA				8	
1724	51880	Mr. Baker, R-CA				9	
322	52721	Mr. Bartlett, R-MD				10	
1717	53831	Mr. Ehlers, R-MI				26	
423	53271	Mr. Wamp, R-TN				11	
216	53671	Mr. Dave Weldon, R-FL				12	
1429	55301	Mr. Graham, R-SC				13	
115	52635	Mr. Salmon, R-AZ				14	
415	51492	Mr. Davis, R-VA				15	
417	56565	Mr. Stockman, R-TX				16	
425	52472	Mr. Gutknecht, R-MN				17	
1216	53601	Mrs. Seastrand, R-CA				18	
1319	56216	Mr. Tiahrt, R-KS				19	
410	52211	Mr. Largent, R-OK				20	
114	56831	Mr. Hilleary, R-TN				21	
1114	52311	Mrs. Cubin, R-WY				22	
506	55792	Mr. Foley, R-FL				23	
509	51976	Mrs. Myrick, R-NC				24	
2300	56161	Mr. Brown, D-CA			1		
2409	52956	Mr. Volkmer, D-MO			2		
2236	56673	Mr. Hall, D-TX			–		
2201	54231	Mr. Gordon, D-TN			3		
2446	55261	Mr. Traficant, D-OH			–		
1127	54714	Mr. Tanner, D-TN			4		
407	53915	Mr. Roemer, D-IN				25	
236	54801	Mr. Cramer, D-AL			5		
1410	58171	Mr. Barcia, D-MI			16		
217	56411	Mr. McHale, D-PA			6		
325	58220	Ms. Harman, D-CA			7		
1123	58885	Ms. Johnson, D-TX			8		
1415	52331	Mr. Minge, D-MN			17		
1027	55335	Mr. Olver, D-MA			9		
1039	51313	Mr. Hastings, D-FI			10		
1116	56216	Ms. Rivers, D-MI			11		
1232	54535	Ms. McCarthy, D-MO			–		
1032	55401	Mr. Ward, D-KY			12		
118	53072	Ms. Lofgren, D-CA			13		
126	54865	Mr. Doggett, D-TX			14		
1218	52135	Mr. Doyle, D-PA			–		
1520	53816	Ms. Jackson Lee, D-TX			15		
1419	52271	Mr. Luther, D-MN				27	
					17	27	

Attest: Patricia Schwartz (Clerk)

The CHAIRMAN. On Mr. Roemer's amendment number 5, the Clerk misstated the vote. The actual vote was 12 yes, 32 no. I ask unanimous consent that the record reflect the corrected vote.

Mr. ROEMER. Mr. Chairman, did you take a couple of votes away from me in that recalculation? Just one?

The CHAIRMAN. Just one.

Mr. ROEMER. It didn't make any difference.

The CHAIRMAN. It didn't change the outcome much.

Are there further amendments to Title II?

[No response.]

The CHAIRMAN. Seeing none, the Clerk will designate Title III.

The CLERK. Title III. United States Fire Administration.

Mr. CURT WELDON. Mr. Chairman, I move to strike the last word.

The CHAIRMAN. The gentleman from Pennsylvania is recognized.

Mr. CURT WELDON. I have an amendment that members have been given access to. I will not offer an amendment today, but I want to offer a few comments.

This is certainly the smallest portion of what amounts to a $23.7 billion bill and some might call my amendment somewhat trivial in that it only refers to an approximately $400,000 that the President has cut the U.S. Fire Administration from the last fiscal year.

This bill actually is in line with the President's request and I want to make the case to you and to our Ranking Member, both of whom have been supportive of the efforts for the U.S. Fire Administration, that there is probably no other single part of this $23.7 billion bill that directly affects as many of our constituents as this title.

As you know, Mr. Chairman, there are $1.5 million men and women in this country in every Congressional district who every day risk their lives, 85 percent of them volunteers, to go out for floods, tornadoes, earthquakes, fires, explosions and every other type of domestic disaster that we have.

Mr. Chairman, this is the only provision that actually allows for some assistance for these people, and in fact in the last fiscal year, the U.S. Fire Academy and the Fire Administration in Emmitsburg actually trained over 10,000 of your constituents, then went out as trainers and trained 1.5 million men and women across the country.

What is so unique about this, Mr. Chairman, is there is no other single group of Americans who are largely volunteer who each year have over 100 of them die in performing their duties as volunteers. And they've been in every one of our congressional districts. We honor them each year at Emmitsburg. They perform a service that we take for granted. And I think it's outrageous that this Administration and this Committee would even consider cutting even $400,000 from this meager effort to assist these men and women who so selflessly serve our country and our communities, especially when 85 percent of them, Mr. Chairman, are volunteers.

In every one of your congressional districts, in 32,000 organized departments, this is the only way we help them and it sends a terrible signal. I will not offer the amendment, Mr. Chairman, because you have assured me, and I'm sure the Ranking Member, knowing his record, that he would agree that before we get through

a conference process, that we work together to try and reinstate this meager amount of money, if nothing else, to send a signal to these people when they are on Capitol Hill next week, and there will be 2,000 of them here, as Vice President Al Gore and Senator Bob Dole address their 7th National Conference at the Hilton where we honor them, that we are committed to providing this meager sense of support for them nationwide.

Mr. Chairman, I've had the pleasure of being in every one of the states that's represented by members of this Committee, speaking to the state associations of this group of people. And I think the least we can do as a Committee that oversees their national symbolic effort and headquarters is to support them with the meager continuation of funding that actually was projected over a two-year time period in last year's bill.

So I would ask you if you would work with me along with the Ranking Member, Mr. Brown, to see if we can't accommodate my concerns. I'll be happy to yield to the Chairman.

The CHAIRMAN. Will the gentleman yield?

As the gentleman knows, we attempted where we could to use the Administration's figures. With regard to the budget in this particular case, the gentleman is correct that there is a fairly nominal sum of money cut that he feels is important.

We'll certainly be happy to work with the gentleman as we move to the Floor with the bill to see whether or not we can get some agreement on the part of the Administration as well to restore that small amount of funding.

Mr. CURT WELDON. I thank the Chairman.

Mr. BROWN. Mr. Chairman, could I speak briefly on the amendment?

The CHAIRMAN. Well there is no amendment. The gentleman has requested that we strike the last word.

The gentleman from California may do so also.

Mr. BROWN. I move to strike the last word.

The CHAIRMAN. The gentleman is recognized.

Mr. BROWN. Mr. Chairman, I do this for the purpose of agreement. The statement that you made and Mr. Weldon made on the subject of this amendment and to commend Mr. Weldon for his very vigorous and assiduous pursuit of additional support for the fire service throughout this country.

I recognize it as a noble job. I appreciate his contribution and I want to fully support it. I will do everything I can.

The CHAIRMAN. The gentleman from Maryland, do you want to strike the last word?

Mr. BARTLETT. I strike the last word.

The CHAIRMAN. Go ahead.

Mr. BARTLETT. Mr. Chairman, I really need to make a couple of comments. The Fire Academy is in our district. In addition to that, essentially every one of the firefighters in our district is volunteer. So I would like to associate myself with the remarks of the two previous speakers, Mr. Weldon and Mr. Brown, and bring strong support of this effort, which is largely volunteer across the country, particularly in rural districts like I have the privilege of representing.

So I'm proud to be here today to support the National Fire Academy which is in our district, and to support all the volunteer firefighters across the country.

The CHAIRMAN. I thank the gentleman.

Are there amendments to Title III?

[No response.]

The CHAIRMAN. Seeing none, the Clerk will designate Title IV.

Mr. SCHIFF. Mr. Chairman, I ask unanimous consent that a very brief statement explaining Title III that I prepared be admitted to the record at this point.

The CHAIRMAN. Without objection.

[The prepared statement of Mr. Schiff follows:]

HONORABLE STEVE SCHIFF

INTRODUCTION—TITLE III OF THE OMNIBUS CIVILIAN SCIENCE BILL, THE UNITED STATES FIRE ADMINISTRATION

Title III of this bill provides $27.56 million, the Administration's FY 1997 request, for the programs of the United States Fire Administration and the National Fire Academy. The United States Fire Administration was established over two decades ago in response to the increasing number of fire related deaths, injuries, and property damage in the country. The USFA helps to reduce the number of fires and the impact of fires through education of the public on fire risk prevention and control, the collection and analyzation of fire related data, research into fire suppression techniques and technologies, and the promotion of firefighter health and safety.

In addition, the United States Fire Administration administers the National Fire Academy in Emmitsburg, MD. The Academy provides training to fire and emergency service personnel in the latest fire protection and control activities.

The text of title III is virtually identical to the language passed last year by the House in H.R. 2405 regarding the USFA, with the exception of an adjustment to the level authorized from $28 million to $27.56. This change was made in order to make the bill consistent with the Administration's request for FY 1997 for these programs.

The CHAIRMAN. I thank the gentleman.

The CLERK. Mr. Chairman?

The CHAIRMAN. The gentlewoman from Maryland.

Mrs. MORELLA. On Title IV, Mr. Chairman?

The CHAIRMAN. The Clerk will designate Title IV.

The CLERK. Title IV, National Oceanic and Atmospheric Administration.

The CHAIRMAN. I recognize the gentlewoman from Maryland.

Mrs. MORELLA. Thanks, Mr. Chairman.

The CHAIRMAN. For the purposes of colloquy.

Mrs. MORELLA. That's exactly what I was hoping for.

This has to do with the proposed FY '97 funding level for the National Sea Grant College Program. Sea Grant does extremely important peer review of research on ocean, coastal and Great Lakes problems affecting our publicly owned natural resources.

Sea Grant has been reviewed recently by the National Academy of Sciences has been described as playing a unique and essential role in oceanography in this nation. While I understand that Sea Grant authorization actively increases Sea Grant's science funding, the authorization does not include funding for priorities of the Resources Committee.

As you know, we do share jurisdiction of the Sea Grant with the Resources Committee and they've made Sea Grant one of their highest priorities.

Last year, we were able to work with that Committee and the Appropriations Committee to increase funding for Sea Grant above the level initially recommended by this Committee.

We were successful in that effort while remaining on course toward balancing the federal budget, which I strongly support. So therefore I would respectfully ask if the Chairman intends on working with the Resources Committee to craft a Sea Grant authorization which meets both Committees' concerns?

The CHAIRMAN. I thank the gentlelady for her question. I'm aware of her concerns and her support for the program. Since we do share jurisdiction over Sea Grant with the Resources Committee, we will, as we did last year, work with them to get ready to consider the bill on the Floor.

Mrs. MORELLA. Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentlelady.

The amendment, Mr. Wamp.

Mr. WAMP. Thank you, Mr. Chairman.

I'm going to do my best here to explain the dilemma that I find myself in.

What I was attempting to do with the amendment is to add $5 million to the local warnings and forecast budget of the National Weather Service.

As Mr. Cramer of Alabama and I have explained, our districts are one of the five areas of degradation in service of the new NEXRAD system nationwide. And the Secretary of Commerce, since we authorized last year, has designated our area as one of those areas.

Last year's funding level was approximately $405 million. This mark of $391 million is slightly short of what is necessary to ensure that local warnings and forecasts budget needs are met so that everything in a timely manner goes forward.

I had a tornado in my district again this past weekend. It is critical that we have a reasonable level of funding. However, I was looking in a responsible way for offsets and we were going to propose an offset of a $5 million increase for local warnings and forecasts from the Polar Convergence program budget. But I'm told that my friends at the National Weather Service don't want us to remove that $5 million.

I also understand that the distinguished Ranking Member, Mr. Brown, plans to offer a substitute to my amendment that would raise this level up to the President's request.

Let me tell you what's wrong with that.

My friends also tell me over there that you don't need the $409 million, which is the full President's request. That you can actually get by on last year's funding levels, which is $405 million.

If we could do with level funding, let's not ask for more money just for the sake of asking for more money.

So I think his substitute is not in order, and actually my amendment is now not in order, so I'm going to take a risk and do what I would do if I were on the Transportation Committee, on which I also serve, which is a little less partisan than this Committee.

I'm going to withdraw my amendment, Mr. Chairman, and ask the other side to withdraw their amendments and lets try between now and the time this authorization bill gets to the Floor, Mr.

Cramer, Mr. Brown, Mr. Walker and myself, and our friends at the National Weather Service, to strike a compromise on an increase for this area with the respective offsets in some acceptable area.

Let's take this up on the House Floor so that we have a minimum level of acceptable funding for local warnings and forecasts. That's my proposal and I respectfully withdraw my amendment.

The CHAIRMAN. The gentleman basically is not going to introduce the amendment at this point. Is that correct?

Mr. WAMP. That's correct, Mr. Chairman.

The CHAIRMAN. I thank the gentleman. The Chair was prepared to accept the amendment with the offset, but I understand that the gentleman has gone through that, and I respect the gentleman's judgment on it.

Mr. BROWN. Mr. Chairman?

The CHAIRMAN. For what purpose does the gentleman from California seek recognition?

Mr. BROWN. Strike the last word.

The CHAIRMAN. The gentleman is recognized.

Mr. BROWN. Mr. Chairman, I appreciate the statement Mr. Wamp has just made. I had the staff look at his amendment. We did not feel either that the amount was sufficient to achieve what he wanted, nor that it was necessary to have an offset since there's a cap on the overall funding anyway. You might say that I was prepared to offer an amendment to bring it up to the amount that would meet his purpose if it was voted down.

I think that that would be practically a good thing on our part because providing adequate warning service is a very popular thing in a member's district, and it is undesirable for him to vote against such a measure.

However, in the spirit of compromise and a desire to effect what he wants to achieve in a way that is reasonable, and even if it's less than the President's budget, which I'm not a great worshipper of anyway, I'll be glad to work with him to achieve the results that he wants.

Mr. WAMP. Thank you, sir.

Mr. ROEMER. Mr. Chairman?

The CHAIRMAN. Mr. Roemer?

Mr. ROEMER. Mr. Chairman, I would join in working with Mr. Brown and Mr. Wamp and hopefully you, Mr. Chairman, on a very important matter that Mr. Wamp is willing to offset this somewhere in the budget, which I would agree that we would try to offset it. If that's at $5 million in order to try to get additional resources out there, or at least not erosion of resources as we put in the NEXRAD radar, and we don't see an erosion in the existing services for school children getting on a bus at 6:30 in the morning that might not have to get on that bus with adequate warning and forecasting going out. I agree with the gentleman too.

My area just sustained a couple tornados in severe weather coming off of Lake Michigan. That's one of the reasons why the Third District of Indiana going east and into Ohio was just awarded by the NRC one of these new NEXRAD radars as your district was, because we need it with the unique weather coming off of Lake Michigan there that has lake effects snow and also the tornados.

So I would hope we would work and show some bipartisan today and that we could get this money restored and hope that we could be fiscally responsible in coming up with an offset on it.

And I hope that the Chair would work with us on that.

The CHAIRMAN. If the gentleman would yield. The Chair would be very happy to. As I've said, I was prepared to take Mr. Wamp's amendment that the weather service doesn't regard as so sensitive.

I think we can work this out and find a way to accommodate.

Mr. WAMP. I thank the Chair for that help and that bipartisanship.

The CHAIRMAN. Does the gentleman wish to be recognized for his amendment at this point?

Mr. CRAMER. Mr. Chairman, I am ready for that. I was also ready to say that I would support Mr. Wamp's amendment. I also appreciate the spirit of compromise that we are engaging in, and I appreciate the Chair's giving us the opportunity to work this out.

As Mr. Wamp and I know, we've got to have the people and we've got to have the budget that are now part of the modernization plan. One hand sort of has to work with the other.

Now I am prepared to offer my amendment.

I have an amendment at the desk and ask unanimous consent that it be considered as read.

The CHAIRMAN. The gentleman is recognized for five minutes on his amendment.

[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT

Offered by Mr. Cramer and Mr. Roemer

Page 86, lines 1 through 21, amend subsection (g) to read as follows:

1 (g) AMENDMENTS.—The Weather Service Mod-
2 ernization Act (15 U.S.C. 313 note) is amended—
3 (1) in section 706—
4 (A) by striking "60-day" in subsection
5 (c)(2) and inserting in lieu thereof "30-day";
6 (B) by amending subsection (b)(6) to read
7 as follows:
8 "(6) any recommendations of the Committee
9 submitted under section 707(c) that evaluate the
10 certification.";
11 (C) by amending subsection (d) to read as
12 follows:
13 "(d) FINAL DECISION.—If the Secretary decides to
14 close, consolidate, automate, or relocate any such field of-
15 fice, the Secretary shall publish the certification in the
16 Federal Register and submit the certification to the Com-
17 mittee on Commerce, Science, and Transportation of the
18 Senate and the Committee on Science of the House of
19 Representatives."; and

1 (D) by amending subsection (f) to read as
2 follows:
3 "(f) PUBLIC LIAISON.—The Secretary shall maintain
4 for a period of at least two years after the closure of any
5 weather office a program to—
6 "(1) provide timely information regarding the
7 activities of the National Weather Service which may
8 affect service to the community, including mod-
9 ernization and restructuring; and
10 "(2) work with area weather service users, in-
11 cluding persons associated with general aviation,
12 civil defense, emergency preparedness, and the news
13 media, with respect to the provision of timely weath-
14 er warnings and forecasts."; and
15 (2) by amending section 707(c) to read as fol-
16 lows:
17 "(c) DUTIES.—The Committee may review any cer-
18 tification under section 706, for which the Secretary has
19 provided a notice of intent to certify, in the plan, including
20 any certification for which there is a significant potential
21 for degradation of service within the affected area. Upon
22 the request of the Committee, the Secretary shall make
23 available to the Committee the supporting documents de-
24 veloped by the Secretary in connection with the certifi-
25 cation. The Committee shall evaluate any certification re-

1 viewed on the basis of the modernization criteria and with
2 respect to the requirement that there be no degradation
3 of service, and advise the Secretary accordingly.".

Mr. CRAMER. Last October, during deliberations on Omnibus Civilian Science Authorization in 1995, the House voted for an amendment that I introduced to streamline but not eliminate a process that makes the National Weather Service accountable as it proceeds to close offices throughout the country.

The Committee's bill today does away with that certification process.

Many members here in this room not only spoke for that issue back last year when we had it before the Committee, but on the Floor last October as well, and they voted for the amendment.

The Weather Service Modernization Act passed in 1992 established procedures for the modernization of the National Weather Service.

A crucial part of that was that no weather service office could be closed or automated without a certification that the closure would not result in a degradation of service to the effected area.

A major issue before us today is the certification requirement. The Committee's bill eliminates the certification requirement and that's unacceptable. No weather service office should be closed without the guarantee that an area should receive at least the same level of weather service protection which it's been receiving.

We have in fact with this amendment today, this amendment achieves a compromise between the need to streamline the certification process to save money and the crucial need to certify that the public safety will not be impacted.

My amendment does the following things.

Currently there is a requirement that each closing certification be published in the Federal Register for 60 days. We reduced that requirement to 30 days.

Currently there is a requirement that the Modernization Transition Committee be consulted twice during the certification process. We reduced that to one consultation.

Currently there is a requirement that the Weather Service maintain a liaison officer in every closed office for two years. We think is wasteful and not necessary so we eliminate that requirement.

So I want to emphasize to the members here today, this streamlining will save about $15 million over five years but it still leaves us protected. It leaves those of us who face having our Weather Service offices closed with a process to transition into that closure.

Some of us were added to the Weather Service Modernization Plan so some of us still have the issue open as to whether our Weather Service offices will in fact stay open.

So I think this is definitely an important public safety issue, one that we passed on the Floor of the House, and I think it's very important to this Committee that we support this amendment here today.

I offer the amendment.

The CHAIRMAN. The Chair, I think, will go to recess at this point, and come back and further discuss the amendment following the vote.

The Committee stands in recess.

[Recess.]

The CHAIRMAN. Mr. Cramer had introduced his amendment.

Is there further discussion on the Cramer amendment?

Mr. MCHALE. Mr. Chairman, strike the last word.

The CHAIRMAN. The gentleman's recognized.

Mr. MCHALE. Mr. Chairman, I want to commend my friend, Mr. Cramer, for his efforts in this regard. I speak on behalf of and in support of the Cramer Amendment.

This is an issue that has been before this Committee on at least two or three previous occasions that went back prior to the time that I became a member of Congress.

Mr. Cramer, year after year, has worked diligently to strike a balance between the efficient modernization of the Weather Service and the need to guarantee that the closing of the weather stations will not result in a degradation of service for the affected areas.

He and I worked together last year on this very issue. And I'm pleased once again to join with him.

I think what has been done here is a streamlining of the closure process that continues to guarantee that the communities where such offices are being closed will not be adversely affected by the closure.

As I said, I plan to vote in favor of the amendment. I would note briefly, and in reference to my own district, that we had a Weather Service station at Lehigh Valley International Airport. That station has now been downgraded to the point that there is only one employee remaining.

I had a concern when I originally read the Cramer amendment that that individual might be affected by the language related to a liaison officer, and I wanted to make sure that in fact that individual would not be removed from our community.

Having been given an assurance by the National Weather Service that the position now being filled in my community is not that of a liaison officer and that we will not be adversely affected by that section of the amendment, I urge my colleagues to join with me in support of the Cramer amendment and in recognition of the fact that no member of this Committee has worked more diligently or responsibly in trying to strike a balance between efficient closure while simultaneously protecting the communities that are so vitally served by this kind of forecasting service.

Thank you, Mr. Chairman.

Mr. ROEMER. Mr. Chairman?

The CHAIRMAN. The gentleman from Indiana I should recognize because he cosponsored the amendment and I apologize for skipping past him.

Mr. ROEMER. No problem, Mr. Chairman.

I'm proud to work with Mr. Cramer on this amendment and be one of the cosponsors offering it. I want to associate myself with Mr. McHale's glowing remarks about Mr. Cramer's hard work and his staff's hard work on this.

NASA has a program that they call "faster, better, cheaper." I think that's what we're trying to do here is not sacrifice public safety but still streamline the process and make it work more efficiently.

This amendment would do that. It will not sacrifice the ability of us to protect our citizens when there is severe weather but it will reduce the reporting requirement in the Federal Register from

60 days to 30 days, reduces from two to one the number of consultations required with the Modernization Transition Committee.

Thirdly, it eliminates the requirement for a liaison officer in every closed Weather Service office for two years after closure.

So I think we have simplified and streamlined the process.

Lastly I would say, Mr. Chairman, when we've had hearings with the National Weather Service, they have stated, as I recollect, this is their preference, to work with this kind of streamlining rather than through the other methods.

So I think that this is a good amendment and I'm happy to work with Mr. Cramer on it, and I hope the Committee will pass it.

The CHAIRMAN. Mr. Wamp?

Mr. WAMP. Mr. Chairman, I ask unanimous consent to submit a written statement for the record in support of Mr. Cramer's amendment.

[The prepared statement of Mr. Wamp follows:]

STATEMENT OF THE HONORABLE ZACH WAMP IN SUPPORT OF THE CRAMER AMENDMENT TO STREAMLINE THE WEATHER SERVICE'S CERTIFICATION PROCESS

Thank you, Mr. Chairman.

I commend my colleague from Alabama for offering this amendment again, and strongly support this measure as I have in the past.

Because this is an issue of public safety, I believe it is important for us as Republicans and Democrats to work together. With the possibility of degradation of radar coverage in some areas of the country like Southeast Tennessee and North Alabama, it is extremely important that we do not have soft spots in our radar coverage.

For example, as Hurricane Opal worked its way up through the Gulf of Mexico last year, the folks in my district were getting weather information from Morristown, Tennessee—some 14 miles to the Northeast of Chattanooga. Storms do not come from the northeast to the southeast in the southeastern part of the country. They come from the south.

Until we get a new NEXRAD radar in place that will adequately cover Chattanooga, we must have that service and those reportings coming from a closer area.

Since H.R. 2405 was passed by the House in October of 1995, the National Research Council reported on and the former Secretary of Commerce agreed that the Chattanooga-Huntsville area was suffering from inadequate coverage and that a new NEXRAD was needed.

The National Weather Service has also indicated to me their support for streamlining the certification process, and I think it's a good idea as long as the Commerce Secretary concludes there is no degradation of coverage.

Mr. Chairman, I supported this amendment during our committee markup last year, during Floor debate of H.R. 2405 last October, and I fully support it again this year.

I yield back the balance of my time.

The CHAIRMAN. Anybody else who wishes to be heard on the amendment?

[No response.]

The CHAIRMAN. Let the Chair just point out a couple of facts about the amendment.

We did have this up last year. It was defeated in the Science Committee by a very close vote. The amendment modifies the bill's language, it streamlines the process for closing unneeded Weather Service offices.

The Chairman's mark eliminates onerous certification requirements designed by Congress to impede the National Weather Service from reducing its Weather Service office structure from roughly 250 to 118 offices.

The Cramer amendment reestablishes the certification requirements, although altered, which have been specifically identified by

the Commerce Department's Inspector General, by the Vice President, and by the National Weather Service as costly and unnecessary.

The new certification language maintains a two-year public liaison requirement which NOAA has specifically identified as costly and has recommended terminating.

The Inspector General has reviewed and supports the current language in the Chairman's mark.

In a letter that's less than a year old, he specifically states, and I quote, "any legislative proposal that seeks only to streamline but not eliminate certification, will maintain a process that is both unnecessary and costly."

The National Weather Service has included in its budget a projected savings of $7.4 million in Fiscal Year '97 from the streamlining of the certification process.

This figure matches the NWS estimate for dollars saved by the provision currently in the Chairman's mark.

The Cramer language will not save nearly as much money and therefore this increased burden will have to come out of other National Weather Service programs.

The Cramer language not only jeopardizes the $7.5 million that the Weather Service would save this year, but it will also make it impossible to achieve almost $35 million in savings that the Weather Service projects over the next four years.

The National Weather Service Modernization is already slated to cost $4 billion. We can't afford to have more spending as a result of not being able to carry through in the direction in which we have to go.

Mr. CRAMER. Would the Chairman yield just very quickly?

As I recall, Dr. Baker testified before this Committee that the Weather Service would prefer the streamlined process.

The CHAIRMAN. Well, I would simply say to you, the quote that I have is from the Inspector General who is trying to look out for the funding.

You know, I don't know where Dr. Baker is at this point. My understanding is that the Weather Service is actually looking at some other language that does not go exactly in the direction that you're talking about. It is not necessarily exactly what I talk about but it saves the same amount of money.

I'm certainly willing to look at some of those kinds of solutions. But anything which maintains a process which keeps in place things over an extended period of time that are unneeded it seems to me probably should not be adopted by the Committee. But that's up to the Committee.

The gentleman from Indiana?

Mr. ROEMER. Would the Chairman just yield briefly?

I remember I asked Mr. Baker the question, which one would you prefer, and he said he would prefer the streamlining. Certainly this amendment takes in many of your concerns. The cost, I believe it saves $15 million and it streamlines the process through the Federal Register, it streamlines the liaison process, but it does not take any risk with public safety as we transition to modernization. And I would hope that——

The CHAIRMAN. Let me quote to the gentleman once again what the Inspector General said.

Mr. ROEMER. You're quoting the Inspector General. We're quoting the Director of the Weather Service.

The CHAIRMAN. Because the Inspector General I think has a handle on some of the costs. He says "any legislative proposal that seeks only to streamline but not eliminate certification, will maintain a process that is both unnecessary and costly."

And in fact, the Vice President's attempts to streamline government have also come to that conclusion.

Mr. ROEMER. Again, I appreciate the Chairman's arguments but I'm saying that the National Weather Service is taking into respect and consideration not just the fact that this amendment saves $15 million, but that he is also concerned, maybe more so than the IG, with public safety.

The CHAIRMAN. I'm not aware of any Weather Service endorsement of your amendment and, in my view, the Weather Service does view anything which gets in the way of them putting the NEXRADs on line in a timely manner as being something which does undermine the ability to do public safety because the fact is the NEXRADs are the way in which you achieve a better technology for all.

The Chair will put the question on the amendment.

Those in favor of the amendment will say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed will say no.

[Chorus of nays.]

The CHAIRMAN. In the opinion of the Chair, the noes have it.

Mr. CRAMER. Move for a vote, Mr. Chairman.

The CHAIRMAN. The gentleman requests a vote.

The Clerk will call the roll.

The CLERK. Mr. Walker?

The CHAIRMAN. No.

The CLERK. Mr. Walker votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Boehlert?

[No response.]

The CLERK. Mr. Fawell?

Mr. FAWELL. No.

The CLERK. Mr. Fawell votes no.

Mrs. Morella?

Mrs. MORELLA. No.

The CLERK. Mrs. Morella votes no.

Mr. Weldon of Pennsylvania?

Mr. CURT WELDON. No.

The CLERK. Mr. Weldon votes no.

Mr. Rohrabacher?

[No response.]

The CLERK. Mr. Schiff?

Mr. SCHIFF. No.

The CLERK. Mr. Schiff votes no.

Mr. Barton?

[No response.]
The CLERK. Mr. Calvert?
[No response.]
The CLERK. Mr. Baker?
Mr. BAKER. No.
The CLERK. Mr. Baker votes no.
Mr. Bartlett?
Mr. BARTLETT. No.
The CLERK. Mr. Bartlett votes no.
Mr. Ehlers?
[No response.]
The CLERK. Mr. Wamp?
Mr. WAMP. Yes.
The CLERK. Mr. Wamp votes yes.
Mr. Weldon of Florida?
[No response.]
The CLERK. Mr. Graham?
[No response.]
The CLERK. Mr. Salmon?
[No response.]
The CLERK. Mr. Davis?
Mr. DAVIS. No.
The CLERK. Mr. Davis votes no.
Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no.
Mr. Gutknecht?
[No response.]
The CLERK. Mrs. Seastrand?
[No response.]
The CLERK. Mr. Tiahrt?
[No response.]
The CLERK. Mr. Largent?
Mr. LARGENT. No.
The CLERK. Mr. Largent votes no.
Mr. Hilleary?
Mr. HILLEARY. No.
The CLERK. Mr. Hilleary votes no.
Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no.
Mr. Foley?
[No response.]
The CLERK. Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no.
Mr. Brown?
Mr. BROWN. Mr. Brown votes aye.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
Mr. VOLKMER. Aye.
The CLERK. Mr. Volkmer votes yes.
Mr. Hall?
Mr. HALL. Aye.

The CLERK. Mr. Hall votes yes.
Mr. Gordon?
Mr. GORDON. Aye.
The CLERK. Mr. Gordon votes yes.
Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes.
Mr. Roemer?
Mr. ROEMER. Aye.
The CLERK. Mr. Roemer votes yes.
Mr. Cramer?
Mr. CRAMER. Yes.
The CLERK. Mr. Cramer votes yes.
Mr. Barcia?
[No response.]
The CLERK. Mr. McHale?
Mr. MCHALE. Yes.
The CLERK. Mr. McHale votes yes.
Ms. Harman?
[No response.]
The CLERK. Ms. Johnson?
Ms. JOHNSON. Yes.
The CLERK. Ms. Johnson votes yes.
Mr. Minge?
Mr. MINGE. Yes.
The CLERK. Mr. Minge votes yes.
Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes.
Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. Yes.
The CLERK. Ms. Rivers votes yes.
Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
[No response.]
The CLERK. Ms. Lofgren?
Ms. LOFGREN. Yes.
The CLERK. Ms. Lofgren votes yes.
Mr. Doggett?
Mr. DOGGETT. Yes.
The CLERK. Mr. Doggett votes yes.
Mr. Doyle?
[No response.]
The CLERK. Ms. Jackson Lee?
Ms. JACKSON LEE. Aye.
The CLERK. Ms. Jackson Lee votes yes.
Mr. Luther?
Mr. LUTHER. Aye.
The CLERK. Mr. Luther votes yes.

The CHAIRMAN. Are there members who have not been recorded who wish to be recorded.

Mr. Barton?

Mr. BARTON. Barton votes no.

The CLERK. Mr. Barton votes no.

The CHAIRMAN. Mr. Weldon?

Mr. CURT WELDON. No

The CLERK. Mr. Weldon votes no.

The CHAIRMAN. Mr. Ehlers?

Mr. EHLERS. Mr. Ehlers votes no.

The CHAIRMAN. Mr. Tiahrt?

Mr. TIAHRT. Mr. Tiahrt votes no.

The CHAIRMAN. Mr. Tiahrt votes no.

The CLERK. Mr. Tiahrt votes no.

The CHAIRMAN. Are there additional members who wish to be recorded?

[No response.]

The CHAIRMAN. If all the members are recorded, the Clerk will report.

[Pause.]

Mr. ROHRABACHER. How am I recorded?

The CLERK. Mr. Rohrabacher is not recorded.

Mr. ROHRABACHER. No.

The CHAIRMAN. Mr. Rohrabacher votes no.

The CLERK. Mr. Chairman.

The CHAIRMAN. The Clerk will report.

The CLERK. The roll call vote is yes 17, no 20.

The CHAIRMAN. The amendment is not agreed to.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********************** ROLL CALL**

Subject: Amendment by Mr. Cramer (#9) and Mr. Roemer **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY					
2159	53515	Mr. Fawell, R-IL				3	
106	55341	Mrs. Morella, R-MD				4	
2452	52011	Mr. Curt Weldon, R-PA				5	
2338	52415	Mr. Rohrabacher, R-CA				20	
2404	56316	Mr. Schiff, R-NM				6	
2264	52002	Mr. Barton, R-TX				15	
1034	51986	Mr. Calvert, R-CA				—	
1724	51880	Mr. Baker, R-CA					
322	52721	Mr. Bartlett, R-MD				8	
1717	53831	Mr. Ehlers, R-MI				17	
423	53271	Mr. Wamp, R-TN			1		
216	53671	Mr. Dave Weldon, R-FL				16	
1429	55301	Mr. Graham, R-SC				—	
115	52635	Mr. Salmon, R-AZ				17	
415	51492	Mr. Davis, R-VA				9	
417	56565	Mr. Stockman, R-TX				10	
425	52472	Mr. Gutknecht, R-MN				—	
1216	53601	Mrs. Seastrand, R-CA				—	
1319	56216	Mr. Tiahrt, R-KS				18	
410	52211	Mr. Largent, R-OK				11	
114	56831	Mr. Hilleary, R-TN				12	
1114	52311	Mrs. Cubin, R-WY				13	
506	55792	Mr. Foley, R-FL				—	
509	51976	Mrs. Myrick, R-NC				14	
2300	56161	Mr. Brown, D-CA			2		
2409	52956	Mr. Volkmer, D-MO			3		
2236	56673	Mr. Hall, D-TX			4		
2201	54231	Mr. Gordon, D-TN			5		
2446	55261	Mr. Traficant, D-OH				—	
1127	54714	Mr. Tanner, D-TN			6		
407	53915	Mr. Roemer, D-IN			7		
236	54801	Mr. Cramer, D-AL			8		
1410	58171	Mr. Barcia, D-MI				—	
217	56411	Mr. McHale, D-PA			9		
325	58220	Ms. Harman, D-CA				—	
1123	58885	Ms. Johnson, D-TX			10		
1415	52331	Mr. Minge, D-MN			11		
1027	55335	Mr. Olver, D-MA			12		
1039	51313	Mr. Hastings, D-FI				—	
1116	56216	Ms. Rivers, D-MI			13		
1232	54535	Ms. McCarthy, D-MO				—	
1032	55401	Mr. Ward, D-KY				—	
118	53072	Ms. Lofgren, D-CA			14		
126	54865	Mr. Doggett, D-TX			15		
1218	52135	Mr. Doyle, D-PA				—	
1520	53816	Ms. Jackson Lee, D-TX			16		
1419	52271	Mr. Luther, D-MN			17		
					17	20	

Attest: Patricia Schwartz (Clerk)

The next amendment is Ms. Lofgren, number ten on the list.
[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MS. LOFGREN

Page 87, line 2, strike "$99,272,000" and insert in lieu thereof "$122,681,000".

Ms. LOFGREN. Thank you, Mr. Chairman.

The amendment I'm offering is similar to the one which I offered last year when we considered the Omnibus Science Authorization Bill. At that time I proposed that NOAA's Global Change Program be fully funded.

And I'm sorry that the Committee did not adopt my amendment at that time.

However, the Appropriations Committee did see fit to add substantially more money than our Committee recommended and authorized.

Since I offered the amendment last year, a lot of things have changed. The American public I think has now become even more sensitized to congressional efforts to scale back environmental programs, including research and development. We as a nation are becoming keenly aware of the value of R&D investment as a hedge against making irreversible mistakes. And while we all want to balance the federal budget and leave our children with a sounder economy, if we leave them with a trillion dollar environmental cleanup job, we won't be doing them any favors.

The Global Change Research Program has also changed in many important ways. The United Nations International Panel on Climate Change concluded late last year that we may be seeing a human-induced trend in the climate record.

This has in fact been the subject of hearings before this Committee which served to highlight many of the scientific uncertainties remaining.

The two inescapable conclusions of these hearings are first that global warming is potentially one of the most serious environmental problems that we may face in our generation.

And second that there are critical research areas that need to be much better developed in order to formulate a sound and cost effective policy in this area.

NOAA's part of this program is especially important and their role has been defined by the National Research Council's recent study on the Earth Observing System and Global Change. NOAA will provide the critical research to make seasonal and annual climate changes linked to the longer range decadal changes that have been shown.

The research needs are well-defined. There is no overlap or duplication with other agencies as has often been asserted both here and on the Floor.

My amendment today seeks to restore NOAA's funding in Global Change so that they can fill the critical role that has been assigned to them.

And I hope that my colleagues will join me in supporting this amendment.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentlelady.

Is there additional discussion on the amendment?

Mr. Rohrabacher?

Mr. ROHRABACHER. Yes.

I think that money that goes into this global warming research, it really is money right down a rat hole. What happened last year, between now and last year when we had the same amendment or

a similar amendment to add more money to global warming research is that we had a very cold winter. And I remember scraping the ice off my windshield and my nose was freezing and my ears felt like they were going to come off. And I looked up and I just said, thank god for global warming or I'd be even more miserable than I am right now.

The fact is that global warming, the more I have studied the issue, the more I have come to believe, and I said earlier on, when I first took over as Chairman, that at best, it's non-proven and at worst it's liberal claptrap. And in fact I have come to the conclusion more every day that it's more toward the latter than the former.

We have very scarce dollars and this is more like a religion, you know, this idea about global warming is more like a religion than it is a science.

And you've got people who are absolutely convinced that in some way mankind is causing, if there is a one or two or three degree change in our temperature over a hundred-year period, which is very debatable that mankind in some way is causing this.

We had a hearing on this in my subcommittee and frankly where we had hearings on the ozone layer and I thought I was going to have the same opinion of that, but I came away thinking, well, the people who were talking about ozone certainly made their case.

But when we had the people there talking about global warming, they didn't make their case at all. And they were, as far as I could see, they were shot down totally by the people who were presenting the other side of the argument.

I think any money that goes into this research is being taken from programs that really are proven to be a necessity, programs that could be of great value to the American people.

So I'd really oppose any extra money going into global warming research.

Ms. LOFGREN. Would the gentleman yield?

Mr. ROHRABACHER. I will yield to my own colleague. She can get her own time.

Ms. LOFGREN. Just very briefly, you and I had this discussion last year. We don't agree and I enjoyed our exchange on the Floor. I think that the weight of scientific opinion is that there is something going on.

I think, as you know, we talk about climate change, not global warming, because as you know from the testimony, what the concern is and what needs to be researched is increased volatility of the climate because of human impact that bears research.

And I would just add, understanding that you and I do not agree on this issue, I have very strong religious beliefs but they are not about global warming. This is a scientific issue that I think compels our analysis and I thank you for yielding the time.

Mr. ROHRABACHER. I yield back the balance of my time. Thank you very much.

Ms. RIVERS. Mr. Chairman?

The CHAIRMAN. Ms. Rivers?

Ms. RIVERS. Thank you, Mr. Chairman.

It's interesting to hear the Chairman of the Subcommittee say that people who were here to testify didn't make their case. That

may or may not be true, but they certainly didn't make his case either.

And one of the things that became glaringly clear is that while there is a difference of opinion, the weight of opinion is much more into the area of concern that something is happening, is that invariably when even the skeptics were asked, should we stop research in this area, the answer was no, we should keep looking at it.

There were differences of opinion about what this chart said versus what that graph said, but no one was coming to this Committee, to the United States House of Representatives, and arguing that the research in this area should stop.

There were differences of opinion. People had published in different venues. They had clear differences about how they viewed the evidence, but there was not, that I can recollect, a single person who said the funding of this research should stop, which is what's being proposed here.

So I think it would be erroneous for us to move forward believing that we'd actually heard testimony justifying this kind of action.

There certainly were differences of opinion, but we did not hear expert testimony telling us to drop the programs and drop the research.

Ms. LOFGREN. Would the gentlelady yield?

Ms. RIVERS. Yes, I would.

Ms. LOFGREN. Just one further point.

Last year, we did not adopt a similar amendment and the appropriators actually appropriated more than we authorized, and I think that we should at least give some credence to where the House has wanted to go on this issue and I think listening to the scientific community in that regard.

And I would yield back to Ms. Rivers and thank her for letting me make that point.

Ms. RIVERS. I yield my time back. Thank you, Mr. Chair.

The CHAIRMAN. Are there additional people who wish to be heard on the amendment?

Mr. OLVER. Mr. Chairman?

The CHAIRMAN. Mr. Olver?

Mr. OLVER. Thank you, Mr. Chairman.

I'm going to support the amendment by the gentlelady from California. I must say I'm surprised and rather distressed I think at the position that the Chairman of the Subcommittee, my subcommittee, has taken on that.

I also sat through the hearing on that issue. While I think I'm pretty careful these days about looking at minority views in science, I would be extremely surprised if we discovered that the minority view on something like cold fusion proves to be the correct one.

At the same time, it's very clear that the minority view of the geologists who first came up with plate tectonics, was absolutely correct, and has proven to be correct.

And anybody who sits and looks at one of the recent sea floor maps of the globe would understand exactly. If they had had that map back in those days, it probably never could have even been argued.

On the issue of the greenhouse effect and global warming, the vast majority, probably at least 95 percent of the science world who publish in any of the areas, any of the peripheral areas, and directly related areas to global climate change and greenhouse effect and all its relationships, agree that there is an effect here which is having anywhere from a degree or two up to several degrees of change in the overall atmospheric temperature for a period of time.

The very small group, very much of a minority view, who think that either this does not exist or does not really matter, it seems to me is very akin to the Luddites of an earlier era.

I am really concerned that we would be putting forward as gospel in our policy that particular position in the actions of this Science Committee here in 1996.

It is useful for me to know where the word "liberal concept" came from. I have heard it on a number of occasions, but I did not realize it was from the distinguished Chairman of the Subcommittee in relation to this particular thing.

I would just point out that if you take just two nations in this world, just two nations, India and China, with over 2 billion people, that merely the urbanization in China and in India over the next generation is going to end up using as much energy as the U.S. presently uses.

And if they, additionally, go on to industrialize as they clearly are trying to do, particularly China's very successful movements toward industrialization, and if they do it by way of the energy usage techniques that the U.S. has used over time, and which the major industrial world has used, then the amount of energy that is going to have to be produced and used to accomplish that will be many times what the United States uses and has to increase the greenhouse gases given off into the atmosphere by manyfold.

And all logic, whether it is by the people who are saying it is going to be 6 degrees, or those who are saying it may only be 1 or 2 degrees, it means that there is going to be a very major increase in greenhouse gases and thereby, it seems to me, everybody on this planet really has an interest in knowing what it is that is going on and how we can conserve energy and how we can produce energy with much less in the way of gases that are given off, and what are the mechanisms that go on in climate changes here.

So I think that this is extremely important for us make sure that climate change research is not curtailed and does not fall by the wayside of ideology.

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

Mr. EHLERS. Thank you, Mr. Chairman.

Just a few words quickly on this issue. It seems to me the debate has been about whether or not there is global warming rather than about whether or not the money should be spent.

I will just simply say it is not at all clear that there will be global warming. I think it is very clear that there will be climate change, and the climate change could take various forms.

It could be a warming. It could be a higher moisture content in the air. You are going to be dumping extra energy into the atmosphere and it is going to have various effects.

But in regard to the central issue of the money, I am certainly sympathetic with continuing efforts. But without an offset, I would be very reluctant to vote for this amendment.

Beyond that, if there is a problem with climate change, where is the money best spent? In studying the likely effects? Or in trying to mitigate them right now?

Personally, if additional money were to be added to the budget to the tune of the $22- or $23 million we are talking about here, it seems to me it would be wiser to put it into energy efficiency and energy conservation efforts, which we are cutting substantially, because that is likely to mitigate the effects and that would be a better place to put it.

Ms. LOFGREN. Would the gentleman yield?

Mr. EHLERS. I will not be supporting the amendment. I do want to clarify that I think climate change is a major issue that has to be dealt with, but it is not necessarily global warming that is the phenomenon that might occur.

Ms. LOFGREN. Would the gentleman yield?

Mr. EHLERS. I will be happy to yield briefly.

Ms. LOFGREN. Just briefly, the amendment does not provide for an offset, noting that all of this remains within the overall limitation established in Section 442[a], and so there is no way to go beyond that.

It would be a matter of managing resources within the overall agency. And secondly, a number of projects that are being pursued that would be pursued with the additional authorization, including research into El Nino, some of the things that I think are very important to review, have to do with the utility of the CFC substitutes, as well as the health of the atmospheric program in the southeast, and taking a look at the noncompliance with the ozone standards and its impact.

So I agree in terms of mitigation, but I would just argue that to know what mitigations are most appropriate we need to have a better understanding of what is at work here in order to understand what would be most effective and cost effective to deal with what seems to be emerging.

With that, I would thank the gentleman for yielding.

Mr. EHLERS. Reclaiming my time, I would just say that I appreciate the extra information given, but I think this is a matter of real dispute that we have to debate at far greater length than we can at this point.

Thank you.

The CHAIRMAN. Are there additional members who wish to be heard on the amendment?

Mr. Bartlett?

Mr. BARTLETT. Mr. Chair, I would just like to continue with the theme that my colleague, Mr. Ehlers, was following.

It is clear that as we increase industrialization in the world there will be some effects on climate. It is not at all clear that that is going to result in global warming.

When Mt. Pinatubo went off, of course, that was an awful lot of energy released. That did not product global warming. It produced global cooling.

Carl Sagan and his concern about a nuclear exchange and nuclear winter was concerned that we would be moved into an ice age because of all the energy released by nuclear weapons, not only does industrialization increase greenhouse gases, it also increases particulates. And the particulates, we do not know whether they will cause global warming or global cooling. It depends on what level they are, what size they are, and so forth.

So I think it is propitious to continue monitoring the effects of industrialization. But to conclude that they are producing global warming is, I think, just very premature at this time.

We need reasonable amounts of money spent on this research. I think that this bill has reasonable amounts of money spent there.

Mr. OLVER. Would the gentleman yield?

Mr. BARTLETT. I would be happy to yield.

Mr. OLVER. Thank you.

I think you have actually made a fairly good argument as to why we need to keep the research, a continuing amount of research, and expanded research, if we don't really know whether the particulate, or the combination of particulates and of gases, the nitrogen and carbon oxides, the general greenhouse gases, if we don't know the combination of how they are going to relate and whether we are going to get cooling or warming, whether we call it climate change or global warming, I will concede the use of a poor term in saying global warming when climate change would clearly be the better term to use, but we had better continue to do the research on climate change.

I think you have made a very good argument for why we ought to continue to do that.

Mr. BARTLETT. And I think the bill has funding to continue to do that.

I yield back the balance of my time.

The CHAIRMAN. Are there additional Members who wish to be heard?

[No response.]

The CHAIRMAN. Just let me make a couple of points.

Sometimes people begin to believe their own rhetoric about all these programs being cut. The fact is, this is a program which is continuing to be funded at about a $100 million level.

What we have got in this bill is an 84 percent increase over where we were in 1990. So we have averaged about 10 percent a year of growth to the program.

If you go with the amendment that is before us, you would have a 128 percent, or 18 percent a year increase. We think that an average of 10 percent a year increase in this kind of research is certainly enough.

It does permit the research to go forward. We think climate research—I happen to think it is an important thing to do, but I think it can be done within a reasonable level of funding.

In this case, the gentlelady from California wants to take off the caps completely and just spend the money. We think we have, at $100 million a year, an appropriate level of effort.

The Chair will put the question.

Those in favor of the amendment will say aye.

[Chorus of ayes.]

The CHAIRMAN. Those opposed, no.
[Chorus of nays.]
The CHAIRMAN. In the opinion of the Chair, the nays have it.
Ms. LOFGREN. I request a roll call vote, Mr. Chairman.
The CHAIRMAN. The Clerk will call the roll.
The CLERK. Mr. Walker?
The CHAIRMAN. No.
The CLERK. Mr. Walker votes no.
Mr. Sensenbrenner?
Mr. SENSENBRENNER. No.
The CLERK. Mr. Sensenbrenner votes no.
Mr. Boehlert.
[No response.]
The CLERK. Mr. Fawell.
Mr. FAWELL. No.
The CLERK. Mr. Fawell votes no.
Mrs. Morella?
[No response.]
The CLERK. Mr. Weldon of Pennsylvania.
Mr. CURT WELDON [PA]. No.
The CLERK. Mr. Weldon votes no.
Mr. Rohrabacher?
Mr. ROHRABACHER. No.
The CLERK. Mr. Rohrabacher votes no.
Mr. Schiff?
Mr. SCHIFF. No.
The CLERK. Mr. Schiff votes no.
Mr. Barton?
Mr. BARTON. No.
The CLERK. Mr. Barton votes no.
Mr. Calvert?
Mr. CALVERT. No.
The CLERK. Mr. Calvert votes no.
Mr. Baker?
Mr. BAKER. No.
The CLERK. Mr. Baker votes no.
Mr. Bartlett?
Mr. BARTLETT. No.
The CLERK. Mr. Bartlett votes no.
Mr. Ehlers?
Mr. EHLERS. No.
The CLERK. Mr. Ehlers votes no.
Mr. Wamp?
Mr. WAMP. No.
The CLERK. Mr. Wamp votes no.
Mr. Weldon of Florida?
Mr. DAVE WELDON [FLA]. No.
The CLERK. Mr. Weldon votes no.
Mr. Graham?
[No response.]
The CLERK. Mr. Salmon?
Mr. SALMON. No.
The CLERK. Mr. Salmon votes no.
Mr. Davis?

Mr. DAVIS. No.
The CLERK. Mr. Davis votes no.
Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no.
Mr. Gutknecht?
Mr. GUTKNECHT. No.
The CLERK. Mr. Gutknecht votes no.
Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no.
Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no.
Mr. Largent?
Mr. LARGENT. No.
The CLERK. Mr. Largent votes no.
Mr. Hilleary?
Mr. HILLEARY. No.
The CLERK. Mr. Hilleary votes no.
Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no.
Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no.
Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no.
Mr. Brown?
Mr. BROWN. Yes.
The CLERK. Mr. Brown votes yes.
Mr. Volkmer?
Mr. VOLKMER. Yes.
The CLERK. Mr. Volkmer votes yes.
Mr. Hall?
[No response.]
The CLERK. Mr. Gordon?
Mr. GORDON. Yes.
The CLERK. Mr. Gordon votes yes.
Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes.
Mr. Roemer?
Mr. ROEMER. Aye.
The CLERK. Mr. Roemer votes yes.
Mr. Cramer?
Mr. CRAMER. Yes.
The CLERK. Mr. Cramer votes yes.
Mr. Barcia?
Mr. BARCIA. Yes.
The CLERK. Mr. Barcia votes yes.

Mr. McHale?
Mr. MCHALE. Yes.
The CLERK. Mr. McHale votes yes.
Ms. Harmon?
[No response.]
The CLERK. Ms. Johnson?
[No response.]
The CLERK. Mr. Minge?
Mr. MINGE. Yes.
The CLERK. Mr. Minge votes yes.
Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes.
Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. Yes.
The CLERK. Ms. Rivers votes yes.
Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
[No response.]
The CLERK. Ms. Lofgren?
Ms. LOFGREN. Yes.
The CLERK. Ms. Lofgren votes yes.
Mr. Doggett?
Mr. DOGGETT. Yes.
The CLERK. Mr. Doggett votes yes.
Mr. Doyle?
[No response.]
The CLERK. Ms. Jackson Lee?
Ms. JACKSON LEE. Aye.
The CLERK. Ms. Jackson Lee votes yes.
Mr. Luther?
Mr. LUTHER. Yes.
The CLERK. Mr. Luther votes yes.
The CHAIRMAN. Are there Members who have not yet been recorded?
Mrs. MORELLA. How is Morella recorded?
The CLERK. Mrs. Morella is not yet recorded.
Mrs. MORELLA. Mrs. Morella votes no.
The CLERK. Mrs. Morella votes no.
The CHAIRMAN. Are there any other Members?
[No response.]
The CHAIRMAN. The Clerk will report.
The CLERK. Mr. Chairman, the roll call vote is yes 15; no, 25.
The CHAIRMAN. The amendment is not agreed to.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********************** ROLL CALL**

Subject: Amendment by Mrs. Lofgren (#10) **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				2	
2246	53665	Mr. Boehlert, R-NY				–	
2159	53515	Mr. Fawell, R-IL				3	
106	55341	Mrs. Morella, R-MD				25	
2452	52011	Mr. Curt Weldon, R-PA				4	
2338	52415	Mr. Rohrabacher, R-CA				5	
2404	56316	Mr. Schiff, R-NM				6	
2264	52002	Mr. Barton, R-TX				7	
1034	51986	Mr. Calvert, R-CA				8	
1724	51880	Mr. Baker, R-CA				9	
322	52721	Mr. Bartlett, R-MD				10	
1717	53831	Mr. Ehlers, R-MI				11	
423	53271	Mr. Wamp, R-TN				12	
216	53671	Mr. Dave Weldon, R-FL				13	
1429	55301	Mr. Graham, R-SC				–	
115	52635	Mr. Salmon, R-AZ				14	
415	51492	Mr. Davis, R-VA				15	
417	56565	Mr. Stockman, R-TX				16	
425	52472	Mr. Gutknecht, R-MN				17	
1216	53601	Mrs. Seastrand, R-CA				18	
1319	56216	Mr. Tiahrt, R-KS				19	
410	52211	Mr. Largent, R-OK				20	
114	56831	Mr. Hilleary, R-TN				21	
1114	52311	Mrs. Cubin, R-WY				22	
506	55792	Mr. Foley, R-FL				23	
509	51976	Mrs. Myrick, R-NC				24	
2300	56161	Mr. Brown, D-CA			1		
2409	52956	Mr. Volkmer, D-MO			2		
2236	56673	Mr. Hall, D-TX			–		
2201	54231	Mr. Gordon, D-TN			3		
2446	55261	Mr. Traficant, D-OH			–		
1127	54714	Mr. Tanner, D-TN			4		
407	53915	Mr. Roemer, D-IN			5		
236	54801	Mr. Cramer, D-AL			6		
1410	58171	Mr. Barcia, D-MI			7		
217	56411	Mr. McHale, D-PA			8		
325	58220	Ms. Harman, D-CA			–		
1123	58885	Ms. Johnson, D-TX			–		
1415	52331	Mr. Minge, D-MN			9		
1027	55335	Mr. Olver, D-MA			10		
1039	51313	Mr. Hastings, D-FI			–		
1116	56216	Ms. Rivers, D-MI			11		
1232	54535	Ms. McCarthy, D-MO			–		
1032	55401	Mr. Ward, D-KY			–		
118	53072	Ms. Lofgren, D-CA			12		
126	54865	Mr. Doggett, D-TX			13		
1218	52135	Mr. Doyle, D-PA			–		
1520	53816	Ms. Jackson Lee, D-TX			14		
1419	52271	Mr. Luther, D-MN			15		
					15	25	

Attest: Patricia Schwartz (Clerk)

The CHAIRMAN. The next amendment is Ms. Rivers.
[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MS. RIVERS

Page 99, lines 9 through 15, strike "(a)" and all that follows through "TRAVEL BUDGET.—".

Ms. RIVERS. Thank you, Mr. Chairman.

The amendment I am offering today would eliminate Section 442[a] of the bill which places an overall limitation on the amount that can be spent on NOAA programs.

While this cap affects the entire bill, it is intended not to apply to much to our programs, the programs within our jurisdiction, but to programs within the jurisdiction of the Resource Committee, primarily, the Ocean, Coastal and Fisheries Program.

I think it is important that we examine where this cap came from and what it actually means, its origin and its effect.

Last year the Chair assigned allocations to each subcommittee based in some way on the House-passed Budget Resolution. The cap on NOAA in Fiscal Year 1996 was intended to enforce the Chair's allocations on the Resource Committee, as well as on this Committee.

This year we do not yet have a Budget Resolution and no rational way of establishing caps. Even if one does accept the fact that they should apply to authorizing committees, thus the cap has no basis whatsoever.

I also sit on the Budget Committee, and my personal belief is that negotiations still go on there, and the Budget Resolution of last year may well be revised to take into account more of the offers and changes that have happened.

This would have a great effect on high-priority discretionary programs such as NOAA. We do not know yet how this will play out, and I think it is very premature to lock us into some number like this.

I would also like to question whether such a cap does in fact constrain the appropriators. After all, last year our cap was set by the Chair at $1.725 billion in his allocation, yet the appropriated level was $1.95 billion, very close to the substitute that was offered last year.

Now in terms of the effect of this particular cap, I would like to take a moment to examine how this limitation will impact ongoing NOAA activities in the Ocean, Coastal and Fisheries programs.

Yesterday, the House overwhelmingly approved the Coastal Zone Management Reauthorization Act and the Cooperative Fisheries Management Act.

I remind you that the votes on the Coastal Zone Management Reauthorization Act was 407 to 0. I have a list of all Members of the Science Committee's vote on that, and I will tell you that on the other side of the aisle, starting with Baker and ending with Weldon [PA] and Weldon [FL], everyone supported that particular motion.

Everyone went on record as supporting the Coastal Zone Management Reauthorization Act. These were basically seen as a way to demonstrate one's pro-environment sentiments on Earth Day.

Today the question is whether the same people who voted "yes" on both sides of the aisle actually want to make good on yesterday's promise and go forward with support of these programs under the NOAA budget.

The budget tables accompanying the Committee Print indicate that this cap accomplishes a reduction of $53 million in NOAA's

$64 million request for the Ocean and Coastal Management Program.

The fundamental purpose of this program is to implement the Coastal Zone Management Act and provide the financial and technical assistance to Coastal States and Territories to implement these management programs.

This is what you said was important yesterday. As a matter of fact, the support was held up as a major element in CZM yesterday on the Floor by speakers on both sides of the aisle.

Yet, today in our proposed budget we could virtually eliminate this very program. For those of you who are hoping to convince an increasingly environmentally conscious electorate of your support for programs, you are going to hit a near insurmountable obstacle in trying to explain away the inexplicable inconsistency between what you are saying on the one day and doing the next.

I am going to finish my comments without talking about defects to the Cooperative Fisheries Management Act, which I would ask to be able to insert in the record and go on to say that your vote today will be held up against your vote yesterday.

We are not talking about raising any costs under this program. Not a single dollar would be increased to this bill. And I am not proposing to alter any spending level in the bill that is within our jurisdiction.

This would simply affect the jurisdiction, or the program within the jurisdiction of the resource bill. I hope that this entire Committee who was so willing yesterday to put their name on the line in support of these kinds of programs will actually follow through by making good on their promise.

Thank you.

The CHAIRMAN. Are there additional Members who wish to be heard on this amendment?

Mr. Weldon?

Mr. CURT WELDON [PA]. Mr. Chairman, I would just say for the record, if the Chairman would yield to me, that I understand the point the gentlelady is making.

As a long-time supporter of NOAA, I have been concerned about the cuts we have had to make in this very difficult budget environment.

For those who are going to oppose the gentlelady's amendment, as I am, I would just point to the fact that we did put in a special initiative in this bill, with the cooperation of the Chairman and the Ranking Member, in the Ocean Partnership Act that does not directly affect the CZM program, but it does allow for a major new partnership to occur between those oceanographic institutions nationwide, the private sector, and our federal agencies.

As a matter of fact, there is an additional $30 million that will be placed in this year's R&D portion of the Defense bill. That will add to the cuts that were made in NOAA last year.

The Chairman of NOAA was at a press conference yesterday when Pat Kennedy and I introduced this legislation. It is a part of this bill because this Committee does have some jurisdiction in that area.

It will be fully funded in the next authorization bill.

The Senate under Trent Lott's leadership is prepared to move forward on similar legislation, and we have gotten assurances that the appropriators will provide the dollars that we are going to authorize.

So I would just say to my colleagues that we are sensitive to NOAA's plight, and that we do have some at least partial remedies to help NOAA generate additional dollars for oceanographic work in this bill.

I thank the Chair and I yield back my time.

Ms. RIVERS. Would the gentleman yield?

The CHAIRMAN. Who seeks recognition?

Ms. LOFGREN. I do, Mr. Chairman.

The CHAIRMAN. Ms. Lofgren.

Ms. LOFGREN. I just wanted to speak in support of Ms. Rivers' amendment, noting that when all is said and done throughout the country, and occasionally here in Congress, there is a lot more said than done, and we can talk all we want but if we are not funding the Coastal Zone Management Act program that we all voted for yesterday, in the end it is what we are doing that is going to count more than what we say we are doing.

I think this is one of those issues that just could not be more clear, and I would like to yield the balance of my time to Ms. Rivers.

Ms. RIVERS. Thank you, Representative Lofgren.

I would ask a question to the previous speaker, Representative Weldon. The dollars that you just spoke about, would any of those be directly allocated to the two programs that everyone voted for yesterday, the Coastal Zone Management Reauthorization Act and the Cooperative Fisheries Management Act?

Is there any guarantee that these two programs we voted on yesterday——

Mr. CURT WELDON [PA]. Would the gentlelady yield to me?

I would say to the gentlelady that the Partnership Act is broad enough that there is a wide allowance for programs developed locally and regionally that meet the needs of a particularly coastal area of the country, as was determined by the hearings that we held in both Patrick Kennedy's District of Rhode Island and out in California.

In fact, those kinds of programs could be funded—they are not required to be funded—but they could in fact be funded.

Ms. RIVERS. Reclaiming my time, when, I would say that it is important for everyone to take note that there is no specific guarantee that the programs you supported yesterday will be funded under the areas that were just mentioned.

And since you brought up the issue of hearings, it is important to point out that we have had no hearings on these two programs here in this committee, it is my understanding, yet we are involved in appropriations, or an authorizing decision whereas, as you say, the Natural Resources Committee has indeed held hearings.

I think we should defer to their request on this.

The CHAIRMAN. Are there additional speakers?

Ms. Jackson Lee.

Ms. JACKSON LEE. Let me briefly note my support of this amendment, having had first-hand experience with such a need in Texas, with the Flowergarden Banks National Marine Sanctuary.

I do believe we would be effective in ensuring adequate support for this particular effort. I would just conclude by simply saying that I hope that colleagues will support the Rivers amendment.

The CHAIRMAN. Are there further speakers?

[No response.]

The CHAIRMAN. The Chair would simply note that what we have done is increased the cap substantially from last year. It's a $73 million increase above the cap from last year.

In this particular program, we are in fact leaving room for a number of programs. The specific programs to which the gentlelady keeps referring are not in the jurisdiction of this committee. They're in the jurisdiction of the Natural Resources Committee. They will make the determination about the funding on that, as will the appropriators.

What we are trying to do is make certain that, as all those decisions are made, they're made within a calculation that is, in fact, affordable. I don't think there's any inconsistency whatsoever between voting for a cap on the overall agency and voting yesterday for programs that many members feel are an important part of our environmental heritage. And in fact, we have included money in this particular bill by increasing the cap which should be able to take care of some of that.

I yield back my time and put the question. Those in favor of the amendment will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed will say "no."

[Chorus of noes.]

The CHAIRMAN. In the opinion of the Chair, the "noes" have it.

Ms. RIVERS. I'd ask for a roll call vote, please.

The CHAIRMAN. The gentlelady asks for a roll call vote. The Clerk will call the roll.

The CLERK. Mr. Walker?

The CHAIRMAN. No.

The CLERK. Mr. Walker votes no. Mr. Sensenbrenner?

[No response.]

The CLERK. Mr. Boehlert?

[No response.]

The CLERK. Mr. Fawell?

[No response.]

The CLERK. Mrs. Morella?

Mrs. MORELLA. No.

The CLERK. Mrs. Morella votes no. Mr. Weldon of Pennsylvania?

Mr. WELDON [PA]. No.

The CLERK. Mr. Weldon votes no. Mr. Rohrabacher?

[No response.]

The CLERK. Mr. Schiff?

[No response.]

The CLERK. Mr. Barton?

[No response.]

The CLERK. Mr. Calvert?

Mr. CALVERT. No.

The CLERK. Mr. Calvert votes no. Mr. Baker?
Mr. BAKER. No.
The CLERK. Mr. Baker votes no. Mr. Bartlett?
Mr. BARTLETT. No.
The CLERK. Mr. Bartlett votes no. Mr. Ehlers?
Mr. EHLERS. No.
The CLERK. Mr. Ehlers votes no. Mr. Wamp?
Mr. WAMP. No.
The CLERK. Mr. Wamp votes no. Mr. Weldon of Florida?
[No response.]
The CLERK. Mr. Graham?
[No response.]
The CLERK. Mr. Salmon?
[No response.]
The CLERK. Mr. Davis?
Mr. DAVIS. No.
The CLERK. Mr. Davis votes no. Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no. Mr. Gutknecht?
Mr. GUTKNECHT. No.
The CLERK. Mr. Gutknecht votes no. Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no. Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no. Mr. Largent?
Mr. LARGENT. No.
The CLERK. Mr. Largent votes no. Mr. Hilleary?
Mr. HILLEARY. No.
The CLERK. Mr. Hilleary votes no. Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no. Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no. Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no. Mr. Brown?
Mr. BROWN. Aye.
The CLERK. Mr. Brown votes yes. Mr. Volkmer?
Mr. VOLKMER. Yes.
The CLERK. Mr. Volkmer votes yes. Mr. Hall?
[No response.]
The CLERK. Mr. Gordon?
[No response.]
The CLERK. Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes. Mr. Roemer?
Mr. ROEMER. Aye.
The CLERK. Mr. Roemer votes yes. Mr. Cramer?
Mr. CRAMER. Yes.
The CLERK. Mr. Cramer votes yes. Mr. Barcia?
Mr. BARCIA. Yes.
The CLERK. Mr. Barcia votes yes. Mr. McHale?
Mr. MCHALE. Yes.

The CLERK. Mr. McHale votes yes. Ms. Harman?
Ms. HARMAN. Yes.
The CLERK. Ms. Harman votes yes. Ms. Johnson?
Ms. JOHNSON. Yes.
The CLERK. Ms. Johnson votes yes. Mr. Minge?
Mr. MINGE. Yes.
The CLERK. Mr. Minge votes yes. Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes. Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. Yes.
The CLERK. Ms. Rivers votes yes. Ms. McCarthy?
[No response.]
The CLERK. Mr. Ward?
Mr. WARD. Yes.
The CLERK. Mr. Ward votes yes. Ms. Lofgren?
Ms. LOFGREN. Yes.
The CLERK. Ms. Lofgren votes yes. Mr. Doggett?
Mr. DOGGETT. Yes.
Mrs. SCHWARTZ. Mr. Doggett votes yes. Mr. Doyle?
[No response.]
The CLERK. Ms. Jackson Lee?
Ms. JACKSON LEE. Aye.
The CLERK. Ms. Jackson Lee votes yes. Mr. Luther?
Mr. LUTHER. Yes.
The CLERK. Mr. Luther votes yes.
Mr. SENSENBRENNER. Mr. Chairman, Mr. Sensenbrenner votes no.
The CLERK. Mr. Sensenbrenner votes no.
Mr. ROHRABACHER. Mr. Chairman, how am I recorded?
The CLERK. Mr. Rohrabacher is not recorded.
Mr. ROHRABACHER. I vote no.
The CLERK. Mr. Rohrabacher votes no.
Mr. GRAHAM. Mr. Chairman, how am I recorded?
The CLERK. Mr. Graham is not recorded.
Mr. GRAHAM. No, please.
The CLERK. Mr. Graham votes no.
Mr. SCHIFF. I vote no.
The CLERK. Mr. Schiff votes no.
Mr. SALMON. Mr. Chairman, how am I recorded?
The CLERK. Mr. Salmon is not recorded.
Mr. SALMON. No.
The CLERK. Mr. Salmon votes no.
Mr. WELDON [FL]. Mr. Weldon of Florida votes no.
Mr. FAWELL. How is Mr. Fawell recorded?
The CLERK. Mr. Fawell is not recorded.
Mr. FAWELL. I vote no.
The CLERK. Mr. Fawell votes no.
Mr. GORDON. Mr. Gordon votes aye.
The CLERK. Mr. Gordon votes aye.
The CHAIRMAN. Are there additional members who wish to be recorded?
[No response.]

The CHAIRMAN. How is Mrs. Morella recorded?
The CLERK. Mrs. Morella is not recorded.
Mrs. MORELLA. I voted no.
The CLERK. Mrs. Morella votes no.
The CHAIRMAN. The Clerk will report.
The CLERK. Mr. Chairman, the roll call vote is: yes, 18; no, 25.
The CHAIRMAN. The amendment is not agreed to.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********** ROLL CALL

Subject: Amendment of Ms. Rivers (#11) Date: 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				1	
2332	55101	Mr. Sensenbrenner, R-WI				18	
2246	53665	Mr. Boehlert, R-NY				–	
2159	53515	Mr. Fawell, R-IL				24	
106	55341	Mrs. Morella, R-MD				25	
2452	52011	Mr. Curt Weldon, R-PA				2	
2338	52415	Mr. Rohrabacher, R-CA				19	
2404	56316	Mr. Schiff, R-NM				21	
2264	52002	Mr. Barton, R-TX					
1034	51986	Mr. Calvert, R-CA				3	
1724	51880	Mr. Baker, R-CA				4	
322	52721	Mr. Bartlett, R-MD				5	
1717	53831	Mr. Ehlers, R-MI				6	
423	53271	Mr. Wamp, R-TN				7	
216	53671	Mr. Dave Weldon, R-FL				23	
1429	55301	Mr. Graham, R-SC				20	
115	52635	Mr. Salmon, R-AZ				22	
415	51492	Mr. Davis, R-VA				8	
417	56565	Mr. Stockman, R-TX				9	
425	52472	Mr. Gutknecht, R-MN				10	
1216	53601	Mrs. Seastrand, R-CA				11	
1319	56216	Mr. Tiahrt, R-KS				12	
410	52211	Mr. Largent, R-OK				13	
114	56831	Mr. Hilleary, R-TN				14	
1114	52311	Mrs. Cubin, R-WY				–	
506	55792	Mr. Foley, R-FL				16	
509	51976	Mrs. Myrick, R-NC				17	
2300	56161	Mr. Brown, D-CA			1		
2409	52956	Mr. Volkmer, D-MO			2		
2236	56673	Mr. Hall, D-TX			–		
2201	54231	Mr. Gordon, D-TN			18		
2446	55261	Mr. Traficant, D-OH			–		
1127	54714	Mr. Tanner, D-TN			3		
407	53915	Mr. Roemer, D-IN			4		
236	54801	Mr. Cramer, D-AL			5		
1410	58171	Mr. Barcia, D-MI			6		
217	56411	Mr. McHale, D-PA			7		
325	58220	Ms. Harman, D-CA			8		
1123	58885	Ms. Johnson, D-TX			9		
1415	52331	Mr. Minge, D-MN			10		
1027	55335	Mr. Olver, D-MA			11		
1039	51313	Mr. Hastings, D-FI			–		
1116	56216	Ms. Rivers, D-MI			12		
1232	54535	Ms. McCarthy, D-MO					
1032	55401	Mr. Ward, D-KY			13		
118	53072	Ms. Lofgren, D-CA			14		
126	54865	Mr. Doggett, D-TX			15		
1218	52135	Mr. Doyle, D-PA					
1520	53816	Ms. Jackson Lee, D-TX			16		
1419	52271	Mr. Luther, D-MN			17		
					18	25	

Attest: Patricia Schwartz (Clerk)

Are there further amendments to Title IV?

[No response.]

The CHAIRMAN. If not, the Clerk will designate Title V.

The CLERK. Title V, Environmental Protection Agency.

The CHAIRMAN. Let me go first to Mr. Graham, who is on the list, and indicate to the gentleman that, if we can keep that short, I'm willing to take his amendment.

[Laughter.]

[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MR. GRAHAM

Page 118, line 3, strike paragraph (7).

Page 118, lines 4 through 13, redesignate paragraphs (8) through (12) as paragraphs (7) through (11), respectively.

Mr. GRAHAM. Thank you, Mr. Chairman.

[Applause.]

The CHAIRMAN. The amendment needs to be distributed, I think, so that all this elation will be over something specific.

Mr. GRAHAM. It looks pretty good to me.

The CHAIRMAN. It's not in the package. Will the gentleman just give a couple sentences to describe the amendment?

Mr. GRAHAM. Yes, sir.

This amendment doesn't have any money attached to it. It preserves a program that the appropriators can decide to fund, if they choose, that will allow certain states to get research and development funds in the EPA area for universities and colleges that traditionally do not receive research and development funds. This program has worked well, and I'll ask the Committee to accept it.

The CHAIRMAN. The Chair is prepared to accept the amendment. Is there further discussion on the amendment?

[No response.]

The CHAIRMAN. If not, the Chair will put the question.

Those in favor of the amendment will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed say "no."

[No response.]

The CHAIRMAN. The ayes have it. The amendment is agreed to.

Mr. Davis, you have a report language that we would like to have distributed.

Mr. DAVIS. Mr. Chairman, yes. I'm not sure who has it. It can be distributed very quickly. This was something I think the Committee agreed to last year. I don't believe it was controversial.

Last year, I offered an amendment to the Energy and Environment Subcommittee which allowed this Committee to increase the funds available to the Department of Energy as the dollar amounts in the budget resolution fluctuated. This amendment proved very beneficial to the Committee and to supporters of the DOE as we moved through the process. In short, we were able to find additional monies for them at the Full Committee level.

This year, I have chosen to offer this, not as a amendment to the bill itself, but as language to be included in the Committee report on the Omnibus Science Authorization. I'm confident that through its inclusion in the Committee report, it will prove as beneficial this year as it has in the past, and I would just read the language for the record.

Under "further authorizations: it is the intent of the Committee that nothing in this Act shall preclude further authorization of appropriations for the civilian science activities of the federal government for Fiscal Year 1997, provided that authorization allocations contained in the concurrent resolution of the budget for Fiscal Year 1997 and approved by Congress allow for such further authorizations."

The CHAIRMAN. I thank the gentleman. That certainly is helpful in light of the fact that we're still working on the budget.

The Chair is prepared to accept the language. Is there further discussion?

[No response.]

The CHAIRMAN. If not, the Chair will put the question.

Those in favor of including this in the Committee report, say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed, say "no."

[No response.]

The CHAIRMAN. The ayes have it. It's agreed to.

TO BE INCLUDED AS COMMITTEE REPORT LANGUAGE IN THE OMNIBUS SCIENCE AUTHORIZATION

FURTHER AUTHORIZATIONS:

It is the intent of the Committee that nothing in this act shall preclude further authorization of appropriations for the civilian science activities of the Federal Government for Fiscal Year 1997; Provided that authorization allocations contained in the concurrent resolution on the budget for Fiscal Year 1997 and approved by Congress, allow for such further authorizations.

Are there further amendments to Title V?

[No response.]

The CHAIRMAN. If not, the Clerk will designate Title VI.

The CLERK. Title VI, National Institute of Standards and Technology.

The CHAIRMAN. Are there amendments?

Mrs. MORELLA. Mr. Chairman?

The CHAIRMAN. The Chairwoman of the Subcommittee is recognized.

Mrs. MORELLA. Just a brief statement, Mr. Chairman, because this is an area that our subcommittee has worked on.

The bill before us does take an aggressive stance to insure that the core science programs at NIST are funded at levels which would permit the NIST laboratories to perform their critical national mission. And I want to commend you for your support, Mr. Chairman, and your recognition of the important work being done at the NIST laboratories.

It is integral to U.S. competition in the global marketplace through its interaction with industry, and by developing and applying technology measurements and standards. And I'm pleased that, despite our commitment to achieve a balanced budget, with tight budget caps in place, the bill authorizes a funding level for the NIST laboratories above the President's request, which is $270.7 million.

By not only matching but exceeding the President's funding request for the scientific and technical research services account at $280.6 million, the bill funds projects which we were unable to fully authorize in the previous fiscal year. These added increases will fund projects in semiconductor, metrology, biotechnology measurements, advanced materials processing, and new government coordinating responsibilities to make NIST the lead agency for standards and conformity assessment activities as mandated by the National Technology Transfer and Advancement Act of 1995.

In addition, the bill authorizes the NIST construction account to provide necessary renovation and modernization of facilities. Without these funds for the state-of-the-art measurement and calibration laboratories to modernize their facilities, NIST cannot adequately fulfill its mission into the future.

Thanks, Mr. Chairman. I appreciate your support for the NIST laboratory programs. I just wanted that put in the record to demonstrate our recognition.

The CHAIRMAN. If the gentlelady would yield to the Chairman, I want to commend her for the work that she's done. She's been a stalwart supporter of the core laboratory program at NIST, and I would ask unanimous consent to include some additional remarks in the record at this point.

[The prepared statement of Chairman Walker follows:]

PREPARED STATEMENT OF CHAIRMAN WALKER ON TITLE VI

I want to commend my colleague from Maryland, Mrs. Morella, the distinguished chair of the Subcommittee on Technology. She has been a stalwart supporter of the core laboratory program at NIST. I would note that our success in maintaining a high level of support for those programs is due in no small part to her diligent work to educate members on the Appropriations Committee and other committees as to the importance of the NIST program.

As Mrs. Morella noted, the authorized funding levels for the NIST core program exceed the President's request by approximately 9.9 million dollars. The authorization total is in line with the FY 1996 budget resolution adopted last year, and we are reaffirming that decision reached last year. Rather than spreading the additional funds throughout the lab activities, we have sought to steer the additional moneys into initiatives which found favor in the Committee last year, in the area of standards development work, but which did not receive adequate funding in the FY 1996 appropriation.

I would note that we have given NIST major new responsibilities for implementation of the policy objectives of the National Technology Transfer Improvements Act of 1996, signed into law earlier this year. Most especially, through that legislation, NIST has been assigned the job of serving as an effective liaison to other agencies in the Federal Government with the mission of encouraging the adoption of voluntary, consensual standards wherever possible in their respective missions, and working to eliminate redundant conformity assessment activities at the federal, state and local level. We expect NIST to construct an aggressive program to carry out these responsibilities, and we look forward to NIST's input to this Committee regarding the strategy for accomplishing the goals.

Mr. TANNER. I have an amendment at the desk.

The CHAIRMAN. The gentleman has an amendment at the desk. The amendment will be distributed. The Chair, not having seen the amendment, would reserve a point of order.

Mr. SENSENBRENNER. I also reserve a point of order.

[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT

OFFERED BY MR. TANNER,

Mr. McHale, and Ms. Johnson

~~Page 122, after line 18, insert the following new sec-~~
~~tions:~~ PAGE 132, AFTER LINE 16, INSERT THE FOLLOWING NEW TITLE

TITLE X.

1 ~~SEC. 602.~~ 101 INDUSTRIAL TECHNOLOGY SERVICES AUTHOR-
2 IZATION OF APPROPRIATIONS.

3 There are authorized to be appropriated to the Sec-
4 retary of Commerce for the Industrial Technology Services
5 activities of the National Institute of Standards and Tech-
6 nology for fiscal year 1997—

7 (1) for the Advanced Technology Program
8 under section 28 of the National Institute of Stand-
9 ards and Technology Act (15 U.S.C. 278n), such
10 sums as may be appropriated; and

11 (2) for the Manufacturing Extension Partner-
12 ships program under sections 25 and 26 of the Na-
13 tional Institute of Standards and Technology Act
14 (15 U.S.C. 278k and 278l), such sums as may be
15 appropriated.

16 SEC. ~~603~~. 102 NATIONAL INSTITUTE OF STANDARDS AND TECH-
17 NOLOGY ACT AMENDMENTS.

18 Section 28 of the National Institute of Standards and
19 Technology Act (15 U.S.C. 278n) is amended—

1 (1) by striking "or contracts" in subsection
2 (b)(1)(B), and inserting in lieu thereof "contracts,
3 and, subject to the last sentence of this subsection,
4 other transactions";
5 (2) by inserting "and if the non-Federal partici-
6 pants in the joint venture agree to pay at least 50
7 percent of the total costs of the joint venture during
8 the Federal participation period, which shall not ex-
9 ceed 5 years," after "participation to be appro-
10 priate,";
11 (3) by striking "provision of a minority share of
12 the cost of such joint ventures for up to 5 years, and
13 (iii)" in subsection (b)(1)(B), and inserting in lieu
14 thereof "and";
15 (4) by striking "and cooperative agreements" in
16 subsection (b)(2), and inserting in lieu thereof ", co-
17 operative agreements, and, subject to the last sen-
18 tence of this subsection, other transactions";
19 (5) by adding after subsection (b)(4) the follow-
20 ing:
21 "The authority under paragraph (1)(B) and paragraph
22 (2) to enter into other transactions shall apply only if the
23 Secretary, acting through the Director, determines that
24 standard contracts, grants, or cooperative agreements are
25 not feasible or appropriate, and only when other trans-

1 action instruments incorporate terms and conditions that
2 reflect the use of generally accepted commercial account-
3 ing and auditing practices."; and
4 (6) by adding at the end the following new sub-
5 section:
6 "(k) Notwithstanding subsection (b)(1)(B)(ii) and
7 subsection (d)(3), the Director may grant extensions be-
8 yond the deadlines established under those subsections for
9 joint venture and single applicant awardees to expend
10 Federal funds to complete their projects, if such extension
11 may be granted with no additional cost to the Federal
12 Government and it is in the Federal Government's interest
13 to do so.".

Page 4, in the table of contents, after the item relating to section 601 insert the following new items:

"Sec. 602. Industrial technology services authorization of appropriations.
"Sec. 603. National Institute of Standards and Technology Act amendments.".

Mr. TANNER. The amendment is offered on behalf of myself, Mr. McHale and Ms. Johnson. If I would be allowed to explain exactly what it is. It is the exact text, except for changing of the year, of H.R. 1871, the NIST Industrial Technology Services Authorization Act, that was unanimously approved by the Technology Subcommittee last year. It is a general authorization of the ATP and MEP programs for such sums as may be appropriated by the Appropriations Committee.

[The prepared statement of Mr. Tanner follows:]

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

AMENDMENT TO AUTHORIZE THE ADVANCED TECHNOLOGY PROGRAM & THE MANUFACTURING EXTENSION PARTNERSHIP

OFFERED BY

MR. TANNER (D-TN),

MR. MCHALE (D-PA), &

MS. JOHNSON (D-TX)

STATEMENT OF HON. JOHN S. TANNER

I will not belabor the Committee with the details of this amendment. This is the exact text, except for changing the authorization year of H.R. 1871, the NIST Industrial Technology Services Authorization Act of 1995, which was unanimously approved and reported by the Technology Subcommittee last year. H.R 1871 was a general authorization of the Advanced Technology Program (ATP) and the Manufacturing Extension Partnership (MEP) for "such sums as may be appropriated."

During the past year, the Subcommittee has received no negative testimony on the MEP. In fact, when the MEP was slated for termination last year, more than 1300 small and medium-sized manufacturers wrote letters to Congress supporting the program. Typical comments were like those of David Featherstone of Bryce-Dixico in Memphis, Tennessee:

"There is a lot of fat you need to cut from government, but this is one program you need to keep."

Or of T. Allan Wright of K&A Acrylics in Wartrace, Tennessee:

"The assistance provided by the Center was invaluable and we certainly hope to have the opportunity to use their services and expertise in the future. We feel this federally assisted program can help small companies remain competitive and create new jobs in their communities."

Rather than repeating a mantra of "we're cutting corporate welfare" let's heed the advice of the business folks back home on the usefulness of this program.

In addition, I am a strong supporter of the Advanced Technology Program. The independent Silber and Associates report, *Survey of Advanced Technology Program 1991-1992 Awardees: Company Opinion About the ATP and Its Early Effects* indicates the program is achieving its objectives. More importantly, the Council on Competitiveness report, *Endless Frontier, Limited Resources* urges Congress to discard outdated distinctions between basic and applied research and urges support for government/industry/university partnerships like the ATP. This isn't a report by ideologues or someone with an ax to grind, its the advice of the business community and academicians.

Although allegations of political favoritism have been made against the ATP, in the past year this Committee has made no attempt to substantiate these allegations. I can only conclude they can't be substantiated. As I've repeatedly said, these two programs have been the focus of political attack, there has never been an attempt to review them solely on merit.

We've heard a lot of talk of the need for the Science Committee to be relevant to the process of setting priorities. I'd like to remind my colleagues that last year I offered a substitute amendment which would have provided $754.1 million for the Office of the Undersecretary of Technology, the Advanced Technology Program, the Manufacturing Extension Partnership, and the NIST labs. The Senate Commerce

Committee, chaired by Senator Pressler, unanimously approved funding of $755 million for these same programs. And the current Continuing Resolution provides estimated funding of $584.4 million for these programs. While last year's Science Committee authorization provided $280.6 million and according to comments of the Chairman provided no funding for the ATP or the MEP—a unilateral action and one that was ultimately disregarded by both Houses, the White House and anyone else interested.

I would urge my colleagues to heed the advice of the likes of the Council on Competitiveness, the American Chemical Society, and the American Electronics Association. Let's leave politics behind and make ourselves relevant in the process.

Mr. TANNER.Does anyone still wish to make a point of order?

The CHAIRMAN. The gentleman from Wisconsin is recognized.

Mr. SENSENBRENNER. Mr. Chairman, I make a point of order against the amendment, in that it is not germane because it does not relate to either the subject matter or the fundamental purpose of the title.

Furthermore, it expands the scope of the title, and under House rules, I believe Rule 23, it is not in order.

The CHAIRMAN. Does anyone else wish to be heard on the point of order?

Mr. TANNER. Mr. Chairman, this is clearly within the title of this bill. The Committee bill is a very broad bill. It's an omnibus bill. It's set out and is titled to authorize appropriations for Fiscal Year 1997 for civilian science activities of the federal government.

How you can say that these programs, which are part of NIST, are not germane stretches the imagination of this member—which may not be hard to do, in some's view. But I just can't imagine this is not germane.

The CHAIRMAN. Does the gentleman from Pennsylvania wish to be heard on the point of order?

Mr. MCHALE. I do, Mr. Chairman.

I believe that the point of order strains credibility. I'm just astonished by it. I can certainly understand, if we wish to argue in favor of or against the substance of the amendment. But I do not understand a point of order based on a claim that this particular amendment is non-germane. For the life of me, I do not understand the logic of that argument.

I've been involved in the legislative process for almost 16 years. And if the gentleman from Wisconsin wishes to argue vehemently in opposition to what Mr. Tanner and I are attempting to propose, I respect that and appreciate that. We can engage on the substance of this opposition.

But how in heaven's name, if we are not to be disingenuous—using a word that was cited earlier today—how can we claim that this amendment is not germane to either the title or the bill? I welcome a comment from the gentleman.

Mr. SENSENBRENNER. Will the gentleman yield?

Mr. MCHALE. Yes, I do yield.

Mr. SENSENBRENNER. The title is narrowly drafted, and under the House rules, the amendment must be germane to the title. It is not germane to the title, and that's what the point of order is all about.

Now, we had unanimous consent to do this bill title by title at the beginning of the markup today. If we didn't have unanimous consent to do it title by title, the outcome may very well be different. But the rules that we are operating under is that we are

doing this bill title by title. It isn't germane to Title VI. You can draft it some other way and it might be germane, but it's not germane to this one.

Mr. MCHALE. Mr. Chairman, reclaiming my time, if this Committee is to function, there has to be a certain level of comity where, in fact, we engage on those issues where we have a difference of opinion, but where—particularly in light of precedent, as we have here, referring to the process we followed last year—we do not artificially hide behind the rules of the House when no one seriously believes that this is about an issue of germaneness.

I find this to be outrageous. We can certainly disagree as to the substance of the proposal. But in light of what happened last year, when this identical language was considered and no objection was similarly raised, I believe that what's happening right now is squarely within the definition of that which is disingenuous, which was referred to earlier by the Ranking Member of our Committee. Have we really sunk this low?

Thank you, Mr. Chairman.

Mr. VOLKMER. Mr. Chairman?

The CHAIRMAN. The gentleman from Missouri.

Mr. VOLKMER. I'd like to speak in opposition to the point of order.

I note that in the bill on page 122 is a provision that has to do with the National Institute of Standards and Technology. It is under "J", shall be for the Malcolm Baldrige National Quality Program under Section 17, Standards and Technology Innovation Act.

If the gentleman from Wisconsin is saying that this title that we have before us to authorize for civilian science activities and for other purposes is not broad enough to cover the gentleman's amendment, I don't understand it. Because you already have a provision outside the science in the Malcolm Baldrige Awards, the quality programs.

That has nothing to do with science whatsoever. The bill is already broadened through this provision that you have already in here.

The CHAIRMAN. To respond first to the gentleman from Missouri, you may have been right a couple of years ago. But the President last year moved the Malcolm Baldrige Award out of Industrial and Technology Services, and it's now part of the core program. So it does not relate directly.

Mr. OLVER. Mr. Chairman, are you about to respond to the point of order?

The CHAIRMAN. That's what I was planning on doing, yes.

Mr. OLVER. May I ask the author of the point of order a question?

The CHAIRMAN. The gentleman is recognized.

Mr. OLVER. Thank you, Mr. Chairman.

To the gentleman from Wisconsin: is the point of order directed at both Section 602 and Section 603 of the proposed amendment?

Mr. SENSENBRENNER. If the gentleman will yield, the rules only allow a point of order to be lodged against an amendment as it has been introduced. That's what I made my point of order against. The decision was made to introduce this amendment the way it is, and

I only have one shot at making a point of order under House rules, and exercised that prerogative.

Mr. OLVER. Reclaiming my time, may I ask the gentleman whether the intent of the point of order is to lie against Section 602 or against 603?

Mr. SENSENBRENNER. It lies against the entire amendment. That's what the rules give me the right to do.

Mr. OLVER. Thank you very much for that.

It would appear to me, at least, that Section 602 is specifically authorizing to be appropriated to activities of the National Institutes of Standards and Technology, and then subsections 1 and 2, which both refer by specific citation of the federal code to sections of the Act creating the National Institutes of Standards and Technology. So I would infer that, were it by itself, there could be no point of order against that. I would infer; I don't know that to be the case.

I'm not sure what the gentleman would find as a point of order if he wished to, and I haven't been able to read the next section in its entirety to know exactly what would be there. I frankly find it extremely difficult to see how a point of order could lie against the proposed Section 602, at the very least.

Thank you very much.

The CHAIRMAN. The Chair is prepared to rule. The question before the Chair is whether, under House rules, the amendment expands the scope of the title which is involved. This amendment would have to pass the test of being germane based upon its relationship to the material presently in the title. This goes beyond the scope of the title.

The amendment is not germane because it does not relate to the subject matter and the fundamental purpose of the title as drafted. It does expand the scope of the title, and under the House rules would not be in order.

Are there additional amendments?

Mr. MCHALE. Mr. Chairman, parliamentary inquiry.

What is the correct procedure to appeal the ruling of the Chair?

The CHAIRMAN. The gentleman has now, by propounding a parliamentary inquiry, gone beyond the point of being able to appeal the ruling of the Chair.

The gentleman from New York has an amendment.

Mr. BOEHLERT. Mr. Chairman, I have a non-controversial amendment at the desk, and I appreciate the staff passing it out. It relates to Section 602 in the Manufacturing Extension Partnership.

There's some bipartisan support. I'll be very brief. This amendment is identical to one that was approved without any opposition last year. As you know, the Manufacturing Extension Program has widespread support, because it helps small business make use of technologies that they would be unlikely to find out about any other way. The program creates jobs, and "jobs" is my favorite four-letter word. You can use it in polite company any time you want.

This amendment just makes clear that this bill should not be interpreted as in any way prejudicing future authorizations for the manufacturing extension program, and I would urge its adoption. Let me stress once again—strong bipartisan support without oppo-

sition last year. I would like to continue that strong bipartisan support without opposition this year.

The CHAIRMAN. May the Chair make a statement here?

The gentleman is offering, as I understand it, a bill that would be a new title. That would not be in order at this point in the proceedings. You'll have to wait till the end of the bill.

I am prepared to recognize the gentleman at the appropriate time. But at this point, I cannot recognize the gentleman, because he is bringing a new subject matter in at an inappropriate time. I would tell the gentleman that he would be subject to the same point of order that was just ruled on previously.

Mr. BOEHLERT. Let me just ask an inquiry of the Chair.

Could I ask unanimous consent that these be considered at this point without being subject to a point of order, since everybody in this room agrees with the purpose of the amendment? It's identical to the language we all embraced last year, and I'm not trying to complicate life, but I would like to go forward.

I see seven of my colleagues on the minority side——

The CHAIRMAN. The Chair is certainly prepared to entertain a unanimous consent request. Is there objection?

Mr. BROWN. Reserving the right to object, Mr. Chairman.

The CHAIRMAN. If we're going to debate it, and we're going to have objection to it, then I would suggest we're going to have to bring it in at the end of the bill.

Mr. BOEHLERT. May we ask this?

Mr. ROEMER. Could we have a unanimous consent that Mr. Tanner be offered the same kind of opportunity?

The CHAIRMAN. That's the reason why the gentleman from Pennsylvania, the Chair of the Committee, thinks that the appropriate thing to do at this point would be to proceed in the regular order, rather than trying to get out. Because I'm sure we'd have an objection to Mr. Tanner proceeding in the same way. That does not seem to me fair to the Chair.

Mr. ROEMER. Mr. Chairman, I think you'd have this side agree to a unanimous consent for Mr. Boehlert if you'd agree to the same unanimous consent that Mr. Tanner could offer his, instead of having to offer it at the end.

The CHAIRMAN. I think the appropriate thing to do under the rules is to move forward.

Mr. BOEHLERT. I'll reluctantly respect the ruling of the Chair.

The CHAIRMAN. Are there further amendments to Title VI?

[No response.]

The CHAIRMAN. If not, the Clerk will designate Title VII.

The CLERK. Title VII, Federal Aviation Administration, RE&D.

[The prepared statement of Mrs. Morella follows:]

MRS. CONSTANCE A. MORELLA

FY97 Omnibus Science Bill Markup

TITLE VII—FAA RESEARCH, ENGINEERING AND DEVELOPMENT

Mr. Chairman, Title VII of this bill incorporates broadly-stated guiding principles for managing FAA Research, Engineering and Development (RE&D) activities.

Although the FAA began efforts to modernize the National Airspace System back in 1981, limited progress has been made despite 15 years of efforts and the expenditure of several billion dollars. Modernization programs have experienced significant

problems in terms of costs, schedules, and performance—and the issues do not appear to be the funding levels or how the money is allocated, but FAA's long-standing, internal management, organizational, and cultural impediments to improving its acquisition processes. Major improvements in modernizing our country's air traffic system require fundamental changes in FAA's acquisition management.

In three previous hearings, the Technology Subcommittee received testimony from the FAA, OTA, GAO, NASA, NOAA, NTSB, advisory groups, trade associations, and contractors about FAA's problems in fielding new systems. Although FAA and others have blamed these perennial problems on procurement rules, government regulations, personnel hiring and firing practices, and other things, significant evidence points to more fundamental organizational, management and cultural issues within the FAA itself.

Nevertheless, this Congress took unprecedented steps to help the FAA put its *"procurement"* and *"personnel"* house in order. The FY96 Department of Transportation Appropriations Act directed the FAA to develop and implement new acquisition and personnel management systems, and specifically excluded the agency from eight major provisions of acquisition law and essentially all government employment practices. On April 1, 1996, the FAA implemented their new acquisition management system—which is an impressive first step. But the challenges ahead are formidable.

FAA RE&D programs need a disciplined acquisition management system based upon sound guiding principles and strong leadership. The guiding principles in Title VII of this Omnibus Science bill provide the legislative foundation for transforming broadly stated requirements into affordable, operationally effective, and suitable products and services to meet the needs of users of the National Airspace System—long after our tenure has ended.

Mr. TANNER. Mr. Chairman, I'm going to try again. I've got another amendment.

The CHAIRMAN. Maybe you'll be more successful this time.

Mr. TANNER. Well, I hope so.

The CHAIRMAN. If the gentleman can be brief with this amendment, which is on the calendar, the Chair is prepared to accept it.

[Text of the amendment follows:]

AMENDMENT TO THE COMMITTEE PRINT OFFERED BY MR. TANNER

Page 129, after line 18, insert the following new sections:

1 **SEC. 707. RESEARCH PRIORITIES.**

2 Section 48102(b) of title 49, United States Code, is
3 amended—

4 (1) by redesignating paragraph (2) as para-
5 graph (3); and

6 (2) by striking "AVAILABILITY FOR RE-
7 SEARCH.—(1)" and inserting in lieu thereof "RE-
8 SEARCH PRIORITIES.—(1) The Administrator shall
9 consider the advice and recommendations of the re-
10 search advisory committee established by section
11 44508 of this title in establishing priorities among
12 major categories of research and development activi-
13 ties carried out by the Federal Aviation Administra-
14 tion.

15 "(2)".

16 **SEC. 708. BUDGET DESIGNATION FOR FEDERAL AVIATION**
17 **ADMINISTRATION RESEARCH AND DEVELOP-**
18 **MENT ACTIVITIES.**

19 Section 48102(c) of title 49, United States Code, is
20 amended to read as follows:

1 "(c) DESIGNATION OF ACTIVITIES.—(1) The
2 amounts appropriated under subsection (a) are for the
3 support of all research and development activities carried
4 out by the Federal Aviation Administration that fall with-
5 in the categories of basic research, applied research, and
6 development, including the design and development of pro-
7 totypes, in accordance with the classifications of the Office
8 of Management and Budget Circular A–11 (Budget For-
9 mulation/Submission Process).
10 "(2) The President's annual budget request for the
11 Federal Aviation Administration shall include all research
12 and development activities within a single budget category.
13 All of the activities carried out by the Administration with-
14 in the categories of basic research, applied research, and
15 development, as classified by the Office of Management
16 and Budget Circular A–11, shall be placed in this single
17 budget category.".
18 **SEC. 709. RESEARCH ADVISORY COMMITTEE.**
19 Section 44508(a)(1) of title 49, United States Code,
20 is amended—
21 (1) by striking "and" at the end of subpara-
22 graph (B);
23 (2) by striking the period at the end of sub-
24 paragraph (C) and inserting in lieu thereof "; and";
25 and

(3) by inserting after subparagraph (C) the following new subparagraph:

"(D) annually review the allocation made by the Administrator of the amounts authorized by section 48102(a) of this title among the major categories of research and development activities carried out by the Administration and provide advice and recommendations to the Administrator on whether such allocation is appropriate to meet the needs and objectives identified under subparagraph (A).".

SEC. 710. NATIONAL AVIATION RESEARCH PLAN.

Section 44501(c) of title 49, United States Code, is amended—

(1) in paragraph (2)(A) by striking "15-year" and inserting in lieu thereof "5-year";

(2) by amending subparagraph (B) to read as follows:

"(B) The plan shall—

"(i) provide estimates by year of the schedule, cost, and work force levels for each active and planned major research and development project under sections 40119, 44504, 44505, 44507, 44509, 44511–44513, and 44912 of this title, including activities carried out under cooperative agreements with other Federal departments and agencies;

1 "(ii) specify the goals and the priorities for allo-
2 cation of resources among the major categories of
3 research and development activities, including the
4 rationale for the priorities identified;
5 "(iii) identify the allocation of resources among
6 long-term research, near-term research, and develop-
7 ment activities; and
8 "(iv) highlight the research and development
9 activities that address specific recommendations of
10 the research advisory committee established under
11 section 44508 of this title, and document the rec-
12 ommendations of the committee that are not accept-
13 ed, specifying the reasons for nonacceptance."; and
14 (3) in paragraph (3) by inserting ", including
15 a description of the dissemination to the private sec-
16 tor of research results and a description of any new
17 technologies developed" after "during the prior fiscal
18 year".

Amend the table of contents accordingly.

Mr. TANNER. Thank you, Mr. Chairman. I rest my case.

[Laughter.]

[The prepared statements of Mr. Tanner and Mrs. Morella follow:]

FEDERAL AVIATION ADMINISTRATION

AMENDMENT OFFERED BY

MR. TANNER (D-TN)

STATEMENT

I want to congratulate Chairwoman Morella for drafting FAA authorization language which moves FAA toward a more efficient and effective R&D management and acquisition system. I also want to thank her for her support in developing my amendment. As always, it is a pleasure to work with her and I'd be happy to refer to this as the Tanner/Morella amendment.

The principal purposes of the amendment are to require FAA to consolidate all of its R&D activities into a single budget account, to strengthen the role of FAA's outside advisory committee for R&D in setting priorities for its R&D activities and to streamline the National Aviation Research Plan. This amendment is based on the recommendations of witnesses who have appeared before the Technology Subcommittee during the three hearings we have held on FAA.

For example, OMB's regulations that provide guidelines to the Federal agencies for budget formulation and submission specify that R&D budgets should be divided into categories of basic research, applied research, and development. FAA indicated in testimony to the Technology Subcommittee last week, that projects included in Activity 1 of the F&D account are associated with full scale development of new technologies, which in accordance with OMB guidelines fall into the budget category of R&D.

The amendment requires that all of FAA's activities classified as R&D under OMB guidelines be placed in a single budget account. This amendment will simplify tracking of R&D projects and will clarify the priorities assigned to the major components of the total FAA R&D program. It is in accordance with the of Section 706 of the bill which authorizes appropriations for both the RD&E account and Activity 1 of the F&E account.

The second purpose of this amendment is to strengthen the role of FAA's Research Advisory Committee. The Research Advisory Committee, established by statute, is composed of aviation experts from industry, other R&D agencies, and universities. To date, the Advisory Committee has not had much influence of setting FAA R&D goals. This amendment requires the Advisory Committee to review and provide recommendations to FAA on its R&D budget and requires FAA to consider those recommendations in establishing its R&D priorities. In addition, the amendment requires FAA to report to Congress on its response to the Advisory Committee's recommendations.

Finally, the amendment simplifies the contents of the National Aviation Research Plan to make it more useful to Congress for tracking and assessing the agency's goals and priorities.

I look forward to working with Chairwoman Morella and other Members of the Committee to ensure that these provisions are incorporated into the Transportation Committee's Authorization bill.

CONSTANCE A. MORELLA

SCIENCE COMMITTEE MARKUP

FISCAL YEAR 1997 AUTHORIZATION

TITLE VII—FEDERAL AVIATION ADMINISTRATION

I am very pleased to support the gentleman from Tennessee's amendment and I congratulate him on the amendment.

As the ranking member on the Technology Subcommittee, Mr. Tanner has taken a very strong interest in aviation research. I commend him for his leadership and, as always, I appreciate his bipartisan cooperation.

The gentleman's amendment effectively incorporates a series of recommendations made by witnesses in the three hearings the subcommittee has conducted on this issue. It performs two very important functions relating to the Federal Aviation Administration's research and development account and serves to preserve the Science Committee's jurisdiction and relevancy in setting FAA R&D policies.

Specifically, the amendment consolidates all FAA R&D activities into a single budget account and it streamlines and strengthens the FAA R&D priorities, especially the National Aviation Research Plan.

Currently, R&D funding is split between two major budget categories, thereby making it more difficult to track the overall FAA R&D investment and assess the priorities among research areas. By consolidating FAA's Facilities and Equipment account into the Research, Engineering, and Development account, we can better gauge R&D funding and provide greater clarity to our priority-setting process.

In addition, the amendment strengthens priority-setting by asserting greater influence upon FAA's Research Advisory Committee, a statutorily-created group of industry, academic, and agency advisors, as well as simplifying the contents of the National Aviation Research Plan.

Requiring the Advisory Committee to comment annually on the priorities represented in the budget will guide FAA and this Committee with our funding process. A strong advisory group has proven to be very successful with other agencies in reviewing and setting agency priorities. For example, the National Institute of Standards and Technology has a similar framework that has been of great assistance to the NIST Director and their laboratory managers in recommending priorities.

Mr. Chairman, I strongly urge adoption of this well-drafted amendment.

The CHAIRMAN. All those in favor of the amendment will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed, say "no."

[No response.]

The CHAIRMAN. The ayes have it.

Are there further amendments to Title VII?

[No response.]

The CHAIRMAN. If not, the Clerk will designate Title VIII. Are there amendments to Title VIII?

Mr. SCHIFF. Mr. Chairman, I ask unanimous consent to enter a brief statement in the record with respect to Title VIII.

The CHAIRMAN. Without objection.

[The prepared statement of Mr. Schiff follows:]

HONORABLE STEVE SCHIFF

INTRODUCTION—TITLE VIII OF THE OMNIBUS CIVILIAN SCIENCE BILL, THE NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM

Title VIII of this legislation authorizes $95.29 million, the Administration's requested levels for FY 1977, for the National Earthquake Hazards Reduction Program, to be allocated to the Federal Emergency Management Agency (FEMA), the United States Geological Survey (USGS), the National Science Foundation (NSF), and the National Institute of Standards and Technology (NIST).

The funds in this title for NSF and NIST are from sums already authorized in previous titles. Title VIII merely fences the money for the NEHRP programs for these two agencies.

FEMA, the lead federal agency, is authorized at $18.25 million for its NEHRP activities, including public education, earthquake hazards mitigation, emergency planning, and information gathering and dissemination. As lead agency, FEMA is charged with the responsibility of coordinating the program.

The USGS is authorized at $46.13 million for assessing earthquake risk and effects.

NSF is authorized at $28.4 million for fundamental earthquake studies, engineering research, and post earthquake investigations.

NIST is authorized at $1.93 million for applied engineering research and codes and design development.

I would also like to point out that the Committee will likely consider a multi-year authorization for NEHRP later this year that will include some policy initiatives and changes in addition to the outyear authorizations.

Mr. ROEMER. Mr. Chairman, you stated your intention this morning that you would now want to have a markup of DOE in the subcommittee. Would you just let us have a little bit more of your thoughts on when this markup will take place on DOE, and whether that bill——

The CHAIRMAN. Can we have this discussion when we finish the bill? I'd prefer to get the bill moving here, and I'll be happy to discuss that as part of the Committee business at that point. Can we do it that way? There are members here with a lot of other schedules——

Mr. ROEMER. I would be happy to get those answers from you on the record, or after the meeting.

The CHAIRMAN. I will be happy to respond.

Are there amendments to Title VIII?

[No response.]

The CHAIRMAN. If not, the Clerk will designate Title IX.

Are there amendments to Title IX?

[No response.]

The CHAIRMAN. If not, are there amendments——

Mr. TANNER. Mr. Chairman, I have an amendment called Title X now.

The CHAIRMAN. Let me recognize Mr. Boehlert. Then you'll be in order. We'll have to come back and have you as the new title.

Mr. Boehlert is recognized.

Mr. BOEHLERT. In the interest of expediting the proceedings, we've got the new appropriate designations for the amendment that I already made a very compelling argument in support of. And I would trust that my colleagues would be enlightened enough to endorse it unanimously and enthusiastically, as they did last year, because the Manufacturing Extension Partnership is a program worthy of our support.

The CHAIRMAN. Is there discussion of the gentleman from New York's amendment? The Chair is prepared to accept the new title.

Mr. TANNER. I would like to offer, as a substitute, the amendment that I described earlier, which is the old H.R. 1871, unanimously passed by the Technology Subcommittee last year.

Mr. SENSENBRENNER. Mr. Chairman, I make a point of order against offering that as a substitute. That goes way beyond the scope of the Boehlert amendment.

The CHAIRMAN. Let me say to the gentleman from Tennessee: I am prepared to recognize you. Your amendment will be in order. Can we allow the Boehlert amendment to go forward? Then we'll certainly allow the gentleman to come forward, and the gentleman offering a new title will be, in fact, germane.

Mr. TANNER. Mr. Chairman, I withdraw that request and make this request: to amend Mr. Boehlert's as follows.

There are authorized to be appropriated by the Secretary of Commerce for Industrial Technology Services activities of the National Institute of Standards and Technology for Fiscal Year 1997 $105 million for the Manufacturing Extension Partnerships program

under Sections 25 and 26 of the National Institute of Standards and Technology Act.

The CHAIRMAN. Does the gentleman have an amendment to the title in writing?

Mr. TANNER. Yes, sir, I do.

The CHAIRMAN. The Clerk will distribute the amendment.

Mr. TANNER. By way of explanation, Mr. Chairman, if I might: what's happened here is, in our absence to speak on these programs, the appropriators are going ahead and appropriating money to these programs with absolutely no guidance or input from this Committee. It's happening.

You're not going to save a dime by resisting the authorization of the ATP and MEP programs. The appropriators recognize the value of them, and are appropriating money in the absence of any action by this Committee.

These programs were unanimously passed in the Technology Subcommittee last year. Every member, Democrat and Republican, voted for them. What happened was we never got a hearing on them, of course, in this Full Committee, because the Chair doesn't like them. I respect his opinion on this matter. That certainly is his prerogative.

But to not let us even bring up the bill I think goes beyond where he is, particularly when it comes from the subcommittee by unanimous vote. This is not a partisan issue at all. And so, out of desperation, we're trying to get some direction to the appropriators for these programs that I know enjoy widespread support on that side of the aisle.

As a matter of fact, there's a letter pending now to the appropriators about these programs, asking that they be appropriated, from members of this Committee on both sides of the aisle.

Mr. BARTON. Parliamentary inquiry, Mr. Chairman. I just want to be sure what we're doing.

We have the Boehlert amendment, that was Section 602 and is now a new title.

The CHAIRMAN. A new Title X, that's correct.

Mr. BARTON. The Boehlert amendment just basically authorizes appropriations for this program if they don't violate the Budget Act. Now, my understanding is the gentleman from Tennessee is offering an amendment to it that gives a specific dollar amount for this program. Is that correct?

The CHAIRMAN. That's my understanding, although I still haven't seen the gentleman from Tennessee's amendment.

Mr. BARTON. I just want to make sure I understood.

The CHAIRMAN. It's hard to understand when we don't have the specific language in front of us. I've got to admit that. That's the reason why we've tried to conduct this in ways that have the amendments to the Committee in advance, so that we don't have this kind of situation.

Mr. BARTON. Is it in order under the Committee rules for a second-degree amendment for the amendment to be offered?

The CHAIRMAN. Certainly. You cannot offer an amendment in the third degree, but you can certainly offer an amendment in the second degree.

Mr. BROWN. Mr. Chairman?

The CHAIRMAN. The gentleman from California.

Mr. BROWN. I am not sure what my parliamentary situation is at the present time. But I am looking at the language of Mr. Boehlert's amendment, and I have considerable difficulty with the last line, "Provided that the budget resolution allows for such authorization." Because the budget resolution, first of all, cannot proscribe what is contained in an authorization bill. It may set limits on the funding of a program, but that only applies to the appropriators.

There is nothing in the budget resolution which restricts authorizations in any way. In fact, the analysis attached to all authorization bills says that they are not to be considered as restricted by the budget resolution. They are not subject to the budget resolution.

Therefore, the language here, I think, is essentially meaningless; except I understand that the gentleman is probably trying to say that the amount of money authorized should fall within the scope of whatever line item is contained. But the gentleman well knows that the budget deals in broad categories, and does not have a line item for this particular situation.

So for both of those reasons, it seems to me that the gentleman is ill-advised in offering such an amendment.

Mr. BOEHLERT. I'll take the counsel of the distinguished Ranking Member and ask unanimous consent that I withdraw the amendment.

The CHAIRMAN. Without objection. Therefore—he has withdrawn the amendment. There would be no amendment. Therefore, then, the gentleman from Tennessee is recognized for an amendment.

Mr. TANNER. Thank you, Mr. Chairman.

I'd like to then offer the amendment that is listed on your schedule under Title VII, VI, whatever it is. It hasn't changed any, except now it's Title X, and it hasn't changed any from last year, when it was H.R. 1871, except for a date, and I think everyone here knows what it does.

And without any further palaver from me, I'd move its adoption.

Mr. SCHIFF. Parliamentary inquiry, Mr. Chairman.

Are we still dealing with some part of the Boehlert amendment?

The CHAIRMAN. The Chair is prepared to explain the parliamentary inquiry—without the help of the gentleman from Missouri.

The Boehlert amendment has been withdrawn. With that, the Tanner amendment to the Boehlert amendment is also withdrawn. Mr. Tanner has now offered a new Title X of his own, which is essentially the amendment that was ruled as non-germane when offered to Title VI. And it is, in fact, in order as a new title, and so the gentleman has been recognized now for the purpose of offering his new Title X amendment.

Mr. TANNER. I'm sorry. I've already made my little speech on behalf of myself and Mr. McHale and Ms. Johnson.

The CHAIRMAN. The gentleman has made his remarks.

Does anybody else wish to be heard on the new title? The gentleman from Pennsylvania.

Mr. MCHALE. Thank you, Mr. Chairman.

I realize it's getting late, and were this not an issue so vitally important to my district, I would bend to the wishes of my colleagues and simply allow the matter to come to a vote. But this is

critically important, and it does require just a couple of moments of discussion.

I'm pleased to join with my colleague and friend Mr. Tanner to offer this amendment to preserve the ongoing, valuable work of the Department of Commerce's Manufacturing Extension Partnership program. Last year, Mr. Boehlert and I worked together on a similar effort. While we look to options to streamline our government and seek out efficiencies, we must be sure to recognize and promote successful, proven programs such as the Manufacturing Extension Partnership.

This program has been in operation in my district for nearly half a decade, and has been extraordinarily successful. Begun under the Reagan administration, the MEP program has enjoyed strong bipartisan support as a model of public-private partnership. Today, MEP operates over 40 grants in 42 states and Puerto Rico, serving more than 44,762 clients.

A 1995 Government Accounting Office survey of 551 firms receiving assistance from the Manufacturing Extension Programs found that 73 percent of those firms in the private sector reported the assistance had an identifiable positive effect on their business performance. 52 percent reported a positive impact on profits.

The Manufacturing Extension Partnership has been recognized by the nation's governors and private organizations as critical to fostering state business and economic development. Mr. Chairman, in our home state of Pennsylvania, state and local funding for Pennsylvania's five MEP centers equals $12 million. MEP customer firms nationwide report a benefit of $8 for each $1 of federal investment.

In my Congressional district, Northeastern Pennsylvania Manufacturing Extension Partnership, with its affiliated Manufacturer's Resource Center, has been recognized nationally for its success in providing highly valued services to approximately 4,000 manufacturers with fewer than 500 employees in a 17-county area.

Mr. Chairman, I want to ask unanimous consent for the insertion of the remainder of my remarks. Let me simply say extemporaneously: this program works. This is one of the best examples of a public-private partnership with a proven track record that we can possibly identify. Real businessmen and women from small manufacturing firms benefit every day in my district and throughout the nation from the services provided by MEP.

This is not a Democratic proposal. It is not a Republican proposal. In the Pennsylvania General Assembly, where I previously worked on these issues, they enjoyed broad bipartisan support. This is about bringing current technology to the marketplace. The program in my district is headed by the spouse of a former Republican member of this Committee.

When it comes to a job, it's not a matter of being a Democrat or a Republican. Mr. Chairman, it is my hope that today, as was the case last year when I worked with Mr. Boehlert, we can, in a bipartisan manner, keep the door open for continued funding. Because I guarantee you, in my district, many manufacturing jobs among small manufacturers are dependent upon what we choose to do today. I hope we choose to act wisely. I hope, as we did last year,

we move in a bipartisan manner in our continuing support of the MEP.

Thank you, Mr. Chairman.

[The prepared statement of Mr. McHale follows:]

STATEMENT OF CONGRESSMAN PAUL MCHALE IN SUPPORT OF THE TANNER/MCHALE AMENDMENT TO THE OMNIBUS CIVILIAN SCIENCE AUTHORIZATION ACT OF 1996

I join with my distinguished colleague, Mr. Tanner to offer this amendment to preserve the ongoing, valuable work of the Department of Commerce's Manufacturing Extension Partnership (MEP) program. While we look to options to streamline our government and seek out efficiencies, we must be sure to recognize and promote successful, proven programs such as the Manufacturing Extension Partnership.

Begun under the Reagan Administration, the MEP program has enjoyed strong bipartisan support as a model of public-private partnership that has strengthened our nation's small and medium-sized manufacturing base. The MEP, contrary to Republican attacks of "corporate welfare," emphasizes competitive, merit-based competitions, cost-sharing and evaluation. Since its origin, MEP's mission has been to strengthen the global competitiveness of small U.S.-based manufacturing firms. Today, MEP operates over 40 grants in 42 states and Puerto Rico, serving more than 44,762 clients.

In fact, manufacturing accounts for 20% of GNP; 16% of all jobs, 20% of all wages and 80% of international trade. U.S. *small* businesses account for 98% of all manufacturers and supply more than half of value-added U.S. manufactured goods. Indeed, small businesses represent a valuable resource and contributor to the U.S. and global economies. A 1995 Government and Accounting Office (GAO) survey of 551 firms receiving assistance from manufacturing extension programs found that 73% of those firms reported the assistance had an identifiable positive effect on their business performance: 52% reported a positive impact on profits; 44% had a positive impact on sales; 61% had a positive impact on product quality; 63% had a positive impact on workplace technology; and 56% had a positive impact on worker productivity and customer satisfaction.

The Manufacturing Extension Partnership has been recognized by the nation's Governors and private organizations as critical to fostering state business and economic development. In Pennsylvania alone, State and local funding to Pennsylvania's 5 MEP centers equals $12 million. The House and Senate Appropriations Committees have recognized the value of MEP, having appropriated $80 million to MEP in FY1996 (though still pending due to the C.R.).

Within the State of Pennsylvania, the Manufacturing Extension Partnership programs serve 75% of Pennsylvania's manufacturing base and has proven an effective means of integrating Pennsylvania's existing technology development and deployment programs, and providing our small and medium sized manufacturers with a range of services from product commercialization to production. Further, MEP customer firms nationwide report a benefit of $8 for each $1 of Federal investment. In my Congressional District, the North/East Pennsylvania Manufacturing Extension Partnership (with its affiliated Manufacturers Resource Center) has been recognized nationally for its success in providing highly valued services to approximately 4,000 manufacturers with fewer than 500 employees in a 17-county area. According to Mrs. Edith Ritter, Executive Director of the Manufacturers Resource Center, federal MEP funding (equaling $1.625 million each year, FY1994-FY1996, est.) has improved sales, increased productivity, decreased waste, and improved quality and workforce skills of participating companies.

Furthermore, the nonpartisan Council on Competitiveness released this week a report entitled *Endless Frontier, Limited Resources* which draws on the work of 80 prestigious scientists and entrepreneurs. The report recommends a concerted effort be made to build more productive R&D partnerships between industry, universities and government to respond to the turbulent changes in the R&D environment. Its central finding is that R&D partnerships hold the key to meeting the challenge of transition that our nation now faces. It also emphasizes that the federal government must meet its long-standing obligation to stimulate civilian research and foster research partnerships to promote industrial innovation. The United States ranks among the lowest of developed countries in public funding of non-defense R&D. According to the *1994 World Competitiveness Report* by the World Economic Forum, the U.S. ranked 28th with only 41.4% of government funding allocated to non-defense research, compared with 100% in Mexico, 94.1 % in Japan, 93% in Canada and 89.5% in Germany.

As you recall, last year during markup of H.R. 1870, the American Technology Advancement Act of 1995, the House Science Committee approved, by voice vote, the McHale/Boehlert amendment to open the door to future funding for the Manufacturing Extension Partnership Program at the National Institute of Standards and Technology. Therefore, I urge Members of this Committee to support prompt passage of this amendment.

The CHAIRMAN. The gentlewoman from Texas.

Ms. JOHNSON. Thank you, Mr. Chairman.

My remarks will be brief. I ask unanimous consent to submit my statement.

Clearly, I could say that we've had great success with partnerships in Texas. Almost anything you name, good or bad, can happen in Texas. But this particular program, the ATP program, established in 1990, provides simple cooperation between government and industry to about 300 high-risk research and development projects, and it has paid off. Because all of us know that when health care costs about a trillion dollars in this country, then the processing of that information is about 20 percent of that cost, or $200 billion.

Just to name one successful project, in my Congressional district, the Microfare Technologies have developed a new method for creating these integrated circuits to save this kind of money, and also to significantly reduce hazardous waste. So it is a useful program.

My position has not and will not change on these programs, Mr. Chairman, although I know that they really don't have the full support of you. But I believe that, on second thought, you will give us homage and know that this is a useful and beneficial program that really should not be discontinued. I thank you.

[The prepared statement of Ms. Johnson follows:]

STATEMENT IN SUPPORT OF TANNER AMENDMENT

Mr. Chairman, I speak in strong support of the Tanner amendment. In particular, I support the reauthorization of the Advanced Technology Program.

Established in 1990, the A-T-P has provided government cooperation with industry in about 300 high-risk research and development projects. Many, if not most, of these projects would not have been completed without the involvement of government in the partnership.

The success stories from the A-T-P are many and varied. In the health care industry, the A-T-P's program for information infrastructure is assisting the industry in laying the foundation for the efficient use of technology in doctor's offices, hospitals and clinics by cost-sharing with industry in the development of enabling technologies to reduce paperwork and bring better medical care to rural areas. Health care costs about $1 trillion in this country, and the processing of information accounts for about 20 percent of the total cost, or about $200 billion.

This is just one example of A-T-P success, and there are many more. In Plano, Texas, part of which is in my Congressional District, MicroFab Technologies developed a new method for creating integrated circuits. An A-T-P award helped this small company of 18 people attract additional funding for product development from major electronics companies. This new technology will significantly reduce hazardous wastes.

Additionally, the A-T-P program has strict cost-sharing rules, and does not constitute "corporate welfare." Industry must pay at least half of the project cost. The 280 awards announced by A-T-P since its beginning under the Bush Administration commit a total of $970 million in government funds and $1 billion in industry funding. The program helps industry get projects to the demonstration phase. The more expensive product development and marketing portions of the process are completely borne by the industry. And, this is not a program to benefit big business alone. Forty-six percent of the A-T-P awards have gone to individual small businesses or to joint ventures led by a small business.

The A-T-P represents the public interest in a strong and growing economy for the United States by assisting in the development of new technologies that lead to new

products, services and industrial processes. The country needs this program to compete in the world marketplace, at a time when our investment in high-risk technology is shrinking and our lead in technology becomes smaller.

Finally, Mr. Chairman, I would like to point out that this amendment closely tracks H.R. 1871, which was passed by the Technology Subcommittee, but has not been brought before the full Committee. I supported this bill, and during the last budget cycle offered an amendment which essentially consisted of the same language. The full Committee deserves the opportunity to consider the merits of the A-T-P program, as well as the M-E-P. I encourage my colleagues to support this amendment.

The CHAIRMAN. Are there other people who wish to be heard on the amendment?

Mr. TANNER. Mr. Chairman, Ms. McCarthy had to leave. But she has a statement here in favor of the amendment that I would ask unanimous consent that I be allowed to place Ms. McCarthy's statement in.

The CHAIRMAN. Without objection.

[The prepared statement of Ms. McCarthy follows:]

STATEMENT IN SUPPORT OF TANNER AMENDMENT

REPRESENTATIVE KAREN MCCARTHY

Mr. Chairman, I would like to speak in favor of the Amendment by my colleague from Tennessee.

This amendment, which was unanimously approved by the Technology Subcommittee last year, is needed to continue the successful Advanced Technology Program (ATP), and the Manufacturing Extension Program (MEP).

The Amendment does not specify a dollar figure for these programs, but simply authorizes their continued existence subject to appropriations.

The ATP program provides essential funding to companies for high-risk, but important, research and development of new technologies. The funding concerns only the R&D phase of projects, not the production and marketing stages.

The MEP program provides small and medium sized businesses with technical assistance to upgrade their operations and boost performance.

Mr. Chairman, these important programs have provided important assistance to many U.S. companies. The ATP and MEP programs enable U.S. businesses to better compete in the global marketplace, and to create quality jobs for American workers. In particular, Cerner Corporation and Allied Signal Laminate Systems benefit from the ATP programs in Kansas City.

Our Mid-America Manufacturing Technology Center (MAMTC) in the Greater Kansas City Area serves a whole list of companies throughout the community, including Sprint and Metropolitan Community College, in addition to thousands of small and medium size businesses in Kansas, in the fifth district of Missouri, and the entire eastern half of Missouri, Oklahoma, and northern Arkansas.

Quoting from page three of the Council on Competitiveness Study, *Endless Frontier, Limited Resources,* April 10, 1996—"The Council's Central finding is that R&D partnerships hold the key to meeting the challenge of transition our nation now faces."

I urge my colleagues to support the Tanner Amendment. We need to ensure that any balanced budget plan sustain investments in R&D that will stimulate productivity, the engine for rising standards of living.

The CHAIRMAN. Mr. Brown.

Mr. BROWN. Mr. Chairman, I don't necessarily want to make a statement at this point. However, as we had an earlier confrontation over the issue of whether I had a right to be recognized after you'd finished your statement, it depends entirely on what you say as to whether I might want to be recognized after you have spoken.

The CHAIRMAN. If the gentleman would yield, it's not a matter of right. As the gentleman knows, it's a matter of courtesy. When the gentleman chaired this Committee, there was a longstanding courtesy extended to the Chairman of the Committee that the Mi-

nority allowed him to speak last. Sometimes the gentleman went on at great length in speaking last.

It's a courtesy that I have observed that takes place in virtually all the committees of the Congress. If the gentleman does not want to extend this Chairman that courtesy, I guess that the gentleman can claim that there is some rule that allows him to speak. I simply was operating on the past procedures of the Committee that the gentleman always exercised on his behalf at the time that he was considering legislation before the Committee.

I would think that the gentleman would want to extend this Chairman the same courtesy. Perhaps that's not the case.

Mr. BROWN. Thank you. I'll resume my time.

Mr. Chairman, I have absolutely no recollection that I was ever discourteous to you when I was Chairman.

The CHAIRMAN. I didn't say that at all. I said that the Minority extended to you the courtesy of being able to close the debate.

Mr. BROWN. Let me then put it this way.

I have absolutely no recollection that I ever asked the Minority to extend me this courtesy. But I exercised it.

Mrs. CUBIN. Mr. Chairman?

Mr. BROWN. I have the time. Would you like me to yield to you?

Mrs. CUBIN. Thank you. I didn't realize you had the time.

Courtesy would be if we could finish up the business today. Many of us have places we were supposed to be earlier. If these things could be settled outside the chambers while all of us are being tied up here, I think that would be the courteous thing to do.

Mr. BROWN. I very much appreciate the desire of many members to terminate this as quickly as possible. I've been in that situation many, many times, and I don't recall that I ever closed down the Minority when I was Chairman because I wanted to go catch a plane.

My position at this point is that this is a body that lives by rules. There is no rule that allows the Chairman to terminate debate and then refuse to recognize anybody else. He can do so by asking unanimous consent, or by changing the rules of the Committee.

The CHAIRMAN. No. The Chair has the power of recognition, I would say to the gentleman, and the Chair can recognize based upon his own desires. And so the rules of the House allow the Chair the power of recognition.

Mr. BROWN. The rules of the House allow the Chair to recognize anyone who rises and asks for recognition. If he refuses to do so—and this happens on occasion—the Chair can get into real trouble.

The CHAIRMAN. The gentleman keeps quoting rules that don't even have any applicability.

Mr. BROWN. I'm choosing to make a statement.

The CHAIRMAN. Does the gentleman wish to be heard on the matter of ATP?

Mr. BROWN. Not at this time, Mr. Chairman.

Mr. VOLKMER. Mr. Chairman?

The CHAIRMAN. The gentleman from Missouri.

Mr. VOLKMER. On behalf of those who are anxious to leave, I think the problem is that the gentleman from California—I'm anticipating the problem—is that if you're going to accept the gentleman's amendment, then we don't need to say anything.

The CHAIRMAN. I'm not going to accept the gentleman's amendment.

Mr. VOLKMER. That tells us basically that you're in opposition to the amendment, and it lets us know that we need some votes if we're going to carry this thing. So if we want to, I think some of us need to talk for awhile until we see how many members we finally get here. This amendment is a darn good amendment.

The CHAIRMAN. So we're having a filibuster at the present time, is that it?

Mr. VOLKMER. I don't know. I just wanted to comment on the amendment. I think I get five minutes under the rules.

The CHAIRMAN. Go ahead.

Mr. VOLKMER. And any other member, if the Chair will recognize them for that purpose, unless we're going to start not recognizing members.

This amendment, as has been stated earlier by the sponsor of the amendment, is basically legislation that's already been previously approved by one of your subcommittees—unanimously approved by the members of your party that belong to that subcommittee. It's going to be interesting to see how they decide to vote at this time, because these programs are very valid programs.

We're not calling for additional spending of money. This isn't busting the budget. It's just helping out businesses. That's really the purpose of it, and it's not doing something to business. It's helping businesses that want to be helped. We don't go out and tell the business they have to do this or that. There's valuable technology out there that some of these businesses would like to know about.

I think if many members had listened to the gentleman from Pennsylvania, they would have found that this is a valid program. It isn't a boondoggle. It isn't pork. There's other pork in here in this bill. I didn't take the time of the Committee to go through it, but there's oink-oink in here, and when we get to the Floor, I think I'll bring up some of that little pork, and we'll find out why it's in here and who's getting the benefit of it.

But there's nothing like that here. This is a valid program, and I think that the Committee would be wise to go ahead and accept it. If we don't here, I guess we can take it to the Floor and we'll debate it on the Floor and take a couple of hours there if the Chairman wishes to do so.

But I think it's a very legitimate amendment, so I strongly support the amendment, and I ask the members to vote favorably, therefore. I yield back the balance of my time, Mr. Chairman.

The CHAIRMAN. The gentleman from Tennessee.

Mr. WAMP. Mr. Chairman, I reluctantly will oppose the amendment from the gentleman from West Tennessee, and I'm really stuck here. Because a few members on this side of the aisle very much support the Manufacturing Extension Partnerships, including me. It's the ATP that many of us have voted to go ahead and phase out, recognizing there's a difference between these two programs.

I commend the gentleman from West Tennessee for all the work that he's done for technology, and I recognize that the Chairman

of that subcommittee, Mrs. Morella, is likely to support what he's doing. But we can't split this up.

Mr. Boehlert is going to work with the Chairman between now and the time this authorization bill goes to the full House Floor to come up with some funding for the Manufacturing Extension Partnership. I have that commitment. Based on that commitment and that understanding to preserve that program, I'm going to reluctantly vote no. But I want to separate the discussion, which is almost impossible, between MEP and ATP, and I yield back the balance of my time.

The CHAIRMAN. I thank the gentleman.

Mr. Barton of Texas.

Mr. BARTON. I want to vote for this amendment. I want to vote for it before 7:00 o'clock. The further we get past 7:00 o'clock, the less likely I am to vote for it. I hope the gentleman from Tennessee would be ready to vote the amendment, and I yield back the balance of my time.

The CHAIRMAN. Is there additional discussion?

Mr. TANNER. If you round up some more votes over there, we can vote now.

The CHAIRMAN. The Chair puts the question.

Those in favor of the amendment will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed, say "no."

[Chorus of noes.]

The CHAIRMAN. In the opinion of the Chair, the noes have it.

Mr. BROWN. A roll call, please, Mr. Chairman.

The CHAIRMAN. The Clerk will call the roll.

The CLERK. Mr. Walker?

[No response.]

The CLERK. Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no. Mr. Boehlert?

[No response.]

The CLERK. Mr. Fawell?

Mr. FAWELL. No.

The CLERK. Mr. Fawell votes no. Mrs. Morella?

Mrs. MORELLA. Yes.

The CLERK. Mrs. Morella votes yes. Mr. Weldon of Pennsylvania?

[No response.]

The CLERK. Mr. Rohrabacher?

Mr. ROHRABACHER. No.

The CLERK. Mr. Rohrabacher votes no. Mr. Schiff?

Mr. SCHIFF. No.

The CLERK. Mr. Schiff votes no. Mr. Barton?

Mr. BARTON. Mr. Barton passes right now.

[Laughter.]

The CLERK. Mr. Calvert?

Mr. CALVERT. No.

The CLERK. Mr. Calvert votes no. Mr. Baker?

Mr. BAKER. No.

The CLERK. Mr. Baker votes no. Mr. Bartlett?

Mr. BARTLETT. No.

The CLERK. Mr. Bartlett votes no. Mr. Ehlers?

Mr. EHLERS. No.
The CLERK. Mr. Ehlers votes no. Mr. Wamp?
Mr. WAMP. A reluctant no.
The CLERK. Mr. Wamp votes no. Mr. Weldon of Florida?
[No response.]
The CLERK. Mr. Graham?
[No response.]
The CLERK. Mr. Salmon?
[No response.]
The CLERK. Mr. Davis?
[No response.]
The CLERK. Mr. Stockman?
Mr. STOCKMAN. No.
The CLERK. Mr. Stockman votes no. Mr. Gutknecht?
Mr. GUTKNECHT. No.
The CLERK. Mr. Gutknecht votes no. Mrs. Seastrand?
Mrs. SEASTRAND. No.
The CLERK. Mrs. Seastrand votes no. Mr. Tiahrt?
Mr. TIAHRT. No.
The CLERK. Mr. Tiahrt votes no. Mr. Largent?
[No response.]
The CLERK. Mr. Hilleary?
Mr. HILLEARY. No.
The CLERK. Mr. Hilleary votes no. Mrs. Cubin?
Mrs. CUBIN. No.
The CLERK. Mrs. Cubin votes no. Mr. Foley?
Mr. FOLEY. No.
The CLERK. Mr. Foley votes no. Mrs. Myrick?
Mrs. MYRICK. No.
The CLERK. Mrs. Myrick votes no. Mr. Brown?
Mr. BROWN. Yes.
The CLERK. Mr. Brown votes yes. Mr. Volkmer?
Mr. VOLKMER. Aye.
The CLERK. Mr. Volkmer votes yes. Mr. Hall?
[No response.]
The CLERK. Mr. Gordon?
Mr. GORDON. Aye.
The CLERK. Mr. Gordon votes yes. Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. Yes.
The CLERK. Mr. Tanner votes yes. Mr. Roemer?
Mr. ROEMER. Aye.
The CLERK. Mr. Roemer votes yes. Mr. Cramer?
Mr. CRAMER. Yes.
The CLERK. Mr. Cramer votes yes. Mr. Barcia?
Mr. BARCIA. Yes.
The CLERK. Mr. Barcia votes yes. Mr. McHale?
Mr. MCHALE. Yes.
The CLERK. Mr. McHale votes yes. Ms. Harman?
Ms. HARMAN. Yes.
The CLERK. Ms. Harman votes yes. Ms. Johnson?
Ms. JOHNSON. Yes.
The CLERK. Ms. Johnson votes yes. Mr. Minge?

Mr. MINGE. Yes.
The CLERK. Mr. Minge votes yes. Mr. Olver?
Mr. OLVER. Yes.
The CLERK. Mr. Olver votes yes. Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. Yes.
The CLERK. Ms. Rivers votes yes. Ms. McCarthy?
Ms. MCCARTHY. Yes.
The CLERK. Ms. McCarthy votes yes. Mr. Ward?
Mr. WARD. Yes.
The CLERK. Mr. Ward votes yes. Ms. Lofgren?
Ms. LOFGREN. Yes.
The CLERK. Ms. Lofgren votes yes. Mr. Doggett?
Mr. DOGGETT. Yes.
Mrs. SCHWARTZ. Mr. Doggett votes yes. Mr. Doyle?
Mr. DOYLE. Yes.
The CLERK. Mr. Doyle votes yes. Ms. Jackson Lee?
Ms. JACKSON LEE. Enthusiastically aye.
The CLERK. Ms. Jackson Lee votes yes. Mr. Luther?
Mr. LUTHER. Yes.
The CLERK. Mr. Luther votes yes.
The CHAIRMAN. Are there members that have not yet voted?
Mr. GRAHAM. How am I recorded?
The CHAIRMAN. How is Mr. Graham recorded?
The CLERK. Mr. Graham is not recorded.
Mr. GRAHAM. With Mr. Wamp's understanding, as previously stated, no.
The CLERK. Mr. Graham votes no.
The CHAIRMAN. How is Mr. Barton recorded?
Mr. BARTON. I haven't been recorded. I'm pondering this.
[Laughter.]
The CHAIRMAN. How is Mr. Rohrabacher recorded? Is there anybody else that's not recorded?
Mr. WELDON [PA]. I'm not pondering after Mr. Barton.
The CLERK. How is the Chairman recorded?
The CHAIRMAN. I'm a no.
Mr. BARTON. I guess I'll vote no.
Mr. TANNER. Joe, it's before 7:00 o'clock.
[Laughter.]
The CLERK. Mr. Weldon votes no.
The CHAIRMAN. And Mr. Barton votes no.
The CLERK. Mr. Barton votes no.
The CHAIRMAN. The Clerk will report.
The CLERK. Mr. Chairman, the roll call vote is yes, 21; no, 21.
The CHAIRMAN. On a tie vote, the motion fails.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********** **ROLL CALL**

Subject: Amendment by Mr. Tanner to add new Title X **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA				21	
2332	55101	Mr. Sensenbrenner, R-WI				1	
2246	53665	Mr. Boehlert, R-NY					
2159	53515	Mr. Fawell, R-IL				2	
106	55341	Mrs. Morella, R-MD			1		
2452	52011	Mr. Curt Weldon, R-PA				19	
2338	52415	Mr. Rohrabacher, R-CA				3	
2404	56316	Mr. Schiff, R-NM				4	
2264	52002	Mr. Barton, R-TX				20	
1034	51986	Mr. Calvert, R-CA				5	
1724	51880	Mr. Baker, R-CA				6	
322	52721	Mr. Bartlett, R-MD				7	
1717	53831	Mr. Ehlers, R-MI				8	
423	53271	Mr. Wamp, R-TN				9	
216	53671	Mr. Dave Weldon, R-FL				–	
1429	55301	Mr. Graham, R-SC				18	
115	52635	Mr. Salmon, R-AZ					
415	51492	Mr. Davis, R-VA				–	
417	56565	Mr. Stockman, R-TX				10	
425	52472	Mr. Gutknecht, R-MN				11	
1216	53601	Mrs. Seastrand, R-CA				12	
1319	56216	Mr. Tiahrt, R-KS				13	
410	52211	Mr. Largent, R-OK				–	
114	56831	Mr. Hilleary, R-TN				14	
1114	52311	Mrs. Cubin, R-WY				15	
506	55792	Mr. Foley, R-FL				16	
509	51976	Mrs. Myrick, R-NC				17	
2300	56161	Mr. Brown, D-CA			2		
2409	52956	Mr. Volkmer, D-MO			3		
2236	56673	Mr. Hall, D-TX			–		
2201	54231	Mr. Gordon, D-TN			4		
2446	55261	Mr. Traficant, D-OH			–		
1127	54714	Mr. Tanner, D-TN			5		
407	53915	Mr. Roemer, D-IN			6		
236	54801	Mr. Cramer, D-AL			7		
1410	58171	Mr. Barcia, D-MI			8		
217	56411	Mr. McHale, D-PA			9		
325	58220	Ms. Harman, D-CA			10		
1123	58885	Ms. Johnson, D-TX			11		
1415	52331	Mr. Minge, D-MN			12		
1027	55335	Mr. Olver, D-MA			13		
1039	51313	Mr. Hastings, D-FI			–		
1116	56216	Ms. Rivers, D-MI			14		
1232	54535	Ms. McCarthy, D-MO			15		
1032	55401	Mr. Ward, D-KY			16		
118	53072	Ms. Lofgren, D-CA			17		
126	54865	Mr. Doggett, D-TX			18		
1218	52135	Mr. Doyle, D-PA			19		
1520	53816	Ms. Jackson Lee, D-TX			20		
1419	52271	Mr. Luther, D-MN			21		
					21	21	

Attest: Patricia Schwartz (Clerk)

The CHAIRMAN.That completes—are there any additional titles?

[No response.]

The CHAIRMAN. That completes the work on the legislation.

Mr. BROWN. Mr. Chairman.

The CHAIRMAN. The question is on the Omnibus Science Authorization Act of 1996—the Committee will be in order. The Chairman can't even hear people seeking recognition.

Mr. VOLKMER. I believe the Clerk is making a retally. I may be wrong, but she's made a mistake a couple of times before, and I don't know which way it'll go. But I think that we'd better let her retally.

Mr. WELDON [FL]. Mr. Chairman, how am I recorded?

[Laughter.]

The CHAIRMAN. The vote at this point is closed. The vote is 21-21. It fails. It will be noted that Mr. Weldon came into the room and would have voted no.

Are there any further amendments?

[No response.]

The CHAIRMAN. Hearing none, the question is on the Omnibus Civil Science Authorization Act of 1996 as amended. Those in favor will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed will say "no."

[Chorus of noes.]

Mr. BROWN. Request a recorded vote.

The CHAIRMAN. This is for final passage.

The CLERK. Mr. Walker?

The CHAIRMAN. Yes.

The CLERK. Mr. Walker votes yes. Mr. Sensenbrenner?

Mr. SENSENBRENNER. Aye.

The CLERK. Mr. Sensenbrenner votes yes. Mr. Boehlert?

[No response.]

The CLERK. Mr. Fawell?

Mr. FAWELL. Yes.

The CLERK. Mr. Fawell votes yes. Mrs. Morella?

Mrs. MORELLA. Yes.

The CLERK. Mrs. Morella votes yes. Mr. Weldon of Pennsylvania?

Mr. WELDON [PA]. Yes.

The CLERK. Mr. Weldon votes yes. Mr. Rohrabacher?

Mr. ROHRABACHER. Yes.

The CLERK. Mr. Rohrabacher votes yes. Mr. Schiff?

Mr. SCHIFF. Yes.

The CLERK. Mr. Schiff votes yes. Mr. Barton?

Mr. BARTON. Yes.

The CLERK. Mr. Barton votes yes. Mr. Calvert?

Mr. CALVERT. Yes.

The CLERK. Mr. Calvert votes yes. Mr. Baker?

Mr. BAKER. Aye.

The CLERK. Mr. Baker votes yes. Mr. Bartlett?

Mr. BARTLETT. Aye.

The CLERK. Mr. Bartlett votes yes. Mr. Ehlers?

Mr. EHLERS. Yes.

The CLERK. Mr. Ehlers votes yes. Mr. Wamp?

Mr. WAMP. Yes.

Mrs. Schwartz. Mr. Wamp votes yes. Mr. Weldon of Florida?
Mr. WELDON [FL]. Yes.
The CLERK. Mr. Weldon votes yes.
The CHAIRMAN. Can we have order? The Clerk can't even hear the replies of the members. Hopefully, we can get this process finished.
The CLERK. Mr. Graham?
Mr. GRAHAM. Yes.
The CLERK. Mr. Graham votes yes. Mr. Salmon?
[No response.]
The CLERK. Mr. Davis?
[No response.]
The CLERK. Mr. Stockman?
Mr. STOCKMAN. Aye.
The CLERK. Mr. Stockman votes yes. Mr. Gutknecht?
Mr. GUTKNECHT. Yes.
The CLERK. Mr. Gutknecht votes yes. Mrs. Seastrand?
Mrs. SEASTRAND. Yes.
The CLERK. Mrs. Seastrand votes yes. Mr. Tiahrt?
Mr. TIAHRT. Yes.
The CLERK. Mr. Tiahrt votes yes. Mr. Largent?
[No response.]
The CLERK. Mr. Hilleary?
Mr. HILLEARY. Yes.
The CLERK. Mr. Hilleary votes yes. Mrs. Cubin?
Mrs. CUBIN. Yes.
The CLERK. Mrs. Cubin votes yes. Mr. Foley?
[No response.]
The CLERK. Mrs. Myrick?
Mr. FOLEY. Yes for Foley.
The CLERK. Mr. Foley votes yes.
Mrs. MYRICK. Myrick is yes.
The CLERK. Mrs. Myrick votes yes. Mr. Brown?
Mr. BROWN. No.
The CLERK. Mr. Volkmer?
Mr. VOLKMER. No.
The CLERK. Mr. Volkmer votes no. Mr. Hall?
[No response.]
The CLERK. Mr. Gordon?
Mr. GORDON. No.
The CLERK. Mr. Gordon votes no. Mr. Traficant?
[No response.]
The CLERK. Mr. Tanner?
Mr. TANNER. No.
The CLERK. Mr. Tanner votes no. Mr. Roemer?
Mr. ROEMER. No.
The CLERK. Mr. Roemer votes no. Mr. Cramer?
Mr. CRAMER. No.
The CLERK. Mr. Cramer votes no. Mr. Barcia?
Mr. BARCIA. Yes.
The CLERK. Mr. Barcia votes yes. Mr. McHale?
Mr. MCHALE. No.
The CLERK. Mr. McHale votes no. Ms. Harman?
Ms. HARMAN. No.

The CLERK. Ms. Harman votes no. Ms. Johnson?
Ms. JOHNSON. No.
The CLERK. Ms. Johnson votes no. Mr. Minge?
Mr. MINGE. No.
The CLERK. Mr. Minge votes no. Mr. Olver?
Mr. OLVER. No.
The CLERK. Mr. Olver votes no. Mr. Hastings?
[No response.]
The CLERK. Ms. Rivers?
Ms. RIVERS. No.
The CLERK. Ms. Rivers votes no. Ms. McCarthy?
Ms. MCCARTHY. No.
The CLERK. Ms. McCarthy votes no. Mr. Ward?
Mr. WARD. Madame Clerk, I'm tempted to pass so I can have that same quality time with the Chairman that Mr. Barton had. But I vote no.
[Laughter.]
The CLERK. Mr. Ward votes no. Ms. Lofgren?
Ms. LOFGREN. No.
The CLERK. Ms. Lofgren votes no. Mr. Doggett?
Mr. DOGGETT. No.
Mrs. SCHWARTZ. Mr. Doggett votes no. Mr. Doyle?
Mr. DOYLE. No.
The CLERK. Mr. Doyle votes no. Ms. Jackson Lee?
Ms. JACKSON LEE. Nay.
The CLERK. Ms. Jackson Lee votes no. Mr. Luther?
Mr. LUTHER. No.
The CLERK. Mr. Luther votes no.
Mr. BARTON. I'll be happy to let Mr. Ward share the next quality time I have with the Chairman.
[Laughter.]
The CHAIRMAN. The Clerk will report. Or are there additional members who need to be recorded?
[No response.]
The CHAIRMAN. If not, the Clerk will report.
The CLERK. Mr. Chairman, yes, 24; no, 19.
The CHAIRMAN. The bill is approved.

COMMITTEE ON SCIENCE - 104TH CONGRESS ********** **ROLL CALL**

Subject: Vote on Final Passage **Date:** 4-24-96

Rm.	Phone	Member	Present	Absent	Yes	No	Not Voting
2369	52411	Mr. Walker, R-PA			1		
2332	55101	Mr. Sensenbrenner, R-WI			2		
2246	53665	Mr. Boehlert, R-NY			–		
2159	53515	Mr. Fawell, R-IL			3		
106	55341	Mrs. Morella, R-MD			4		
2452	52011	Mr. Curt Weldon, R-PA			5		
2338	52415	Mr. Rohrabacher, R-CA			6		
2404	56316	Mr. Schiff, R-NM			7		
2264	52002	Mr. Barton, R-TX			8		
1034	51986	Mr. Calvert, R-CA			9		
1724	51880	Mr. Baker, R-CA			10		
322	52721	Mr. Bartlett, R-MD			11		
1717	53831	Mr. Ehlers, R-MI			12		
423	53271	Mr. Wamp, R-TN			13		
216	53671	Mr. Dave Weldon, R-FL			14		
1429	55301	Mr. Graham, R-SC			15		
115	52635	Mr. Salmon, R-AZ			–		
415	51492	Mr. Davis, R-VA			–		
417	56565	Mr. Stockman, R-TX			16		
425	52472	Mr. Gutknecht, R-MN			17		
1216	53601	Mrs. Seastrand, R-CA			18		
1319	56216	Mr. Tiahrt, R-KS			19		
410	52211	Mr. Largent, R-OK			–		
114	56831	Mr. Hilleary, R-TN			20		
1114	52311	Mrs. Cubin, R-WY			21		
506	55792	Mr. Foley, R-FL			22		
509	51976	Mrs. Myrick, R-NC			23		
2300	56161	Mr. Brown, D-CA				1	
2409	52956	Mr. Volkmer, D-MO				2	
2236	56673	Mr. Hall, D-TX				–	
2201	54231	Mr. Gordon, D-TN				3	
2446	55261	Mr. Traficant, D-OH				–	
1127	54714	Mr. Tanner, D-TN				4	
407	53915	Mr. Roemer, D-IN				5	
236	54801	Mr. Cramer, D-AL				6	
1410	58171	Mr. Barcia, D-MI			24		
217	56411	Mr. McHale, D-PA				7	
325	58220	Ms. Harman, D-CA				8	
1123	58885	Ms. Johnson, D-TX				9	
1415	52331	Mr. Minge, D-MN				10	
1027	55335	Mr. Olver, D-MA				11	
1039	51313	Mr. Hastings, D-FI				–	
1116	56216	Ms. Rivers, D-MI				12	
1232	54535	Ms. McCarthy, D-MO				13	
1032	55401	Mr. Ward, D-KY				14	
118	53072	Ms. Lofgren, D-CA				15	
126	54865	Mr. Doggett, D-TX				16	
1218	52135	Mr. Doyle, D-PA				17	
1520	53816	Ms. Jackson Lee, D-TX				18	
1419	52271	Mr. Luther, D-MN				19	
					24	19	

Attest: Patricia Schwartz (Clerk)

Mr. SENSENBRENNER. Mr. Chairman?

The CHAIRMAN. Mr. Sensenbrenner.

Mr. SENSENBRENNER. Mr. Chairman, I move that a clean bill be prepared by the Chairman for introduction in the House, and that the measure be deemed reported by the Committee. Furthermore, I move to instruct the staff to prepare the legislative report, and make technical and conforming amendments, that the Chairman take all necessary steps to bring the bill before the House for consideration.

Furthermore, I request that the minority, and anybody else, have three days in which to prepare whatever views they want to on this wonderful piece of legislation.

The CHAIRMAN. Without objection.

Mr. BROWN. Mr. Chairman?

The CHAIRMAN. The gentleman from California.

Mr. BROWN. In addition to the reservation of the three days for minority views, I would like to reserve all points of order against the bill.

The CHAIRMAN. I ask unanimous consent that the Committee adopt as part of the legislative report on the Omnibus Civilian Science Authorization Act of 1996 the summary charts which the members had before them as a part of the markup.

Mr. BROWN. Mr. Chairman, I object to your request, but not to the subject matter, the substance of it. I merely would like to have a voice vote, and I will not ask for a roll call vote.

Mr. SENSENBRENNER. Mr. Chairman, I move that the summary charts be included as requested by the Chairman.

The CHAIRMAN. The gentleman moves it.

The question is on the charts. Those in favor will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed will say "no."

[Chorus of noes.]

The CHAIRMAN. In the opinion of the Chair, the ayes have it.

This concludes the markup. But I did indicate to Mr. Roemer that I'd be happy to have a discussion with him—oh, I'm sorry. Mr. Ehlers?

Mr. EHLERS. Thank you, Mr. Chairman.

I move pursuant to Clause 1 of Rule 20 of the rules of the House of Representatives that the Committee authorize the Chairman to offer such motions as may be necessary in the House to go to conference with the Senate on the Omnibus Civilian Science Authorization Act of 1996, or a similar Senate bill.

The CHAIRMAN. The Committee has heard the motion.

Those in favor will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed, say "no."

[No response.]

The CHAIRMAN. The ayes have it.

Mr. BROWN. Mr. Chairman.

The CHAIRMAN. Mr. Brown.

Mr. BROWN. Mr. Chairman, I move to strike the last word.

The CHAIRMAN. Folks, I realize that people have places to go and things to do, but members want to proceed forward here, and the gentleman from California has requested to strike the last word.

The gentleman is recognized.

Mr. BROWN. Mr. Chairman, I'm not going to propose any new votes or anything of that sort. But I was intrigued by your discussion about the precedents of the previous Congresses when I was Chair.

I did not recall that there was any prevailing courtesies extended or anything of that sort, and I've gone back and checked the record. And I have an example, of which there are many, of the way in which we handled it when I was Chair.

I terminated what was a quite lengthy debate on an amendment, and then I made this statement. I urged that we bring this matter to a vote. If no one else wishes to speak, the Chair will put the question.

Now, that was invariably our practice. After I had finished, I invited others to speak, in effect. And this is contained in the records of the 102nd Congress and the 103rd Congress, and it is not what Mr. Walker indicated was the situation.

Now, this is also what I described as being disingenuous, because it's a fairly common tactic of Mr. Walker.

The CHAIRMAN. I thank the gentleman for ending the hearing on a high note. The fact is—but you know, I understand the gentleman has his point of view, and the gentleman is very frustrated. That probably explains a lot.

Mr. SENSENBRENNER. Mr. Chairman, I move that the Committee do now adjourn.

The CHAIRMAN. If the gentleman would withhold his motion, I promised Mr. Roemer that he would have a chance to ask some questions with regard to what we're going to do on the energy bill. I hope that that's not going to precipitate anything, but I do want to extend the gentleman the courtesy that I promised him.

Mr. ROEMER. Mr. Chairman, I would be happy to do this here on the record, or if people do not want to stay and you want to tell me your intentions after we bring a close to this hearing, I'm happy to do it that way.

The CHAIRMAN. That will be fine.

Mr. SENSENBRENNER. Mr. Chairman, I move that the Committee do now adjourn.

The CHAIRMAN. The Committee has heard the motion. Those in favor will say "aye."

[Chorus of ayes.]

The CHAIRMAN. Those opposed say no.

[No response.]

The CHAIRMAN. The ayes have it. The Committee stands adjourned.

[Whereupon, at 7:10 p.m., the hearing in the above-entitled matter was adjourned.]

○