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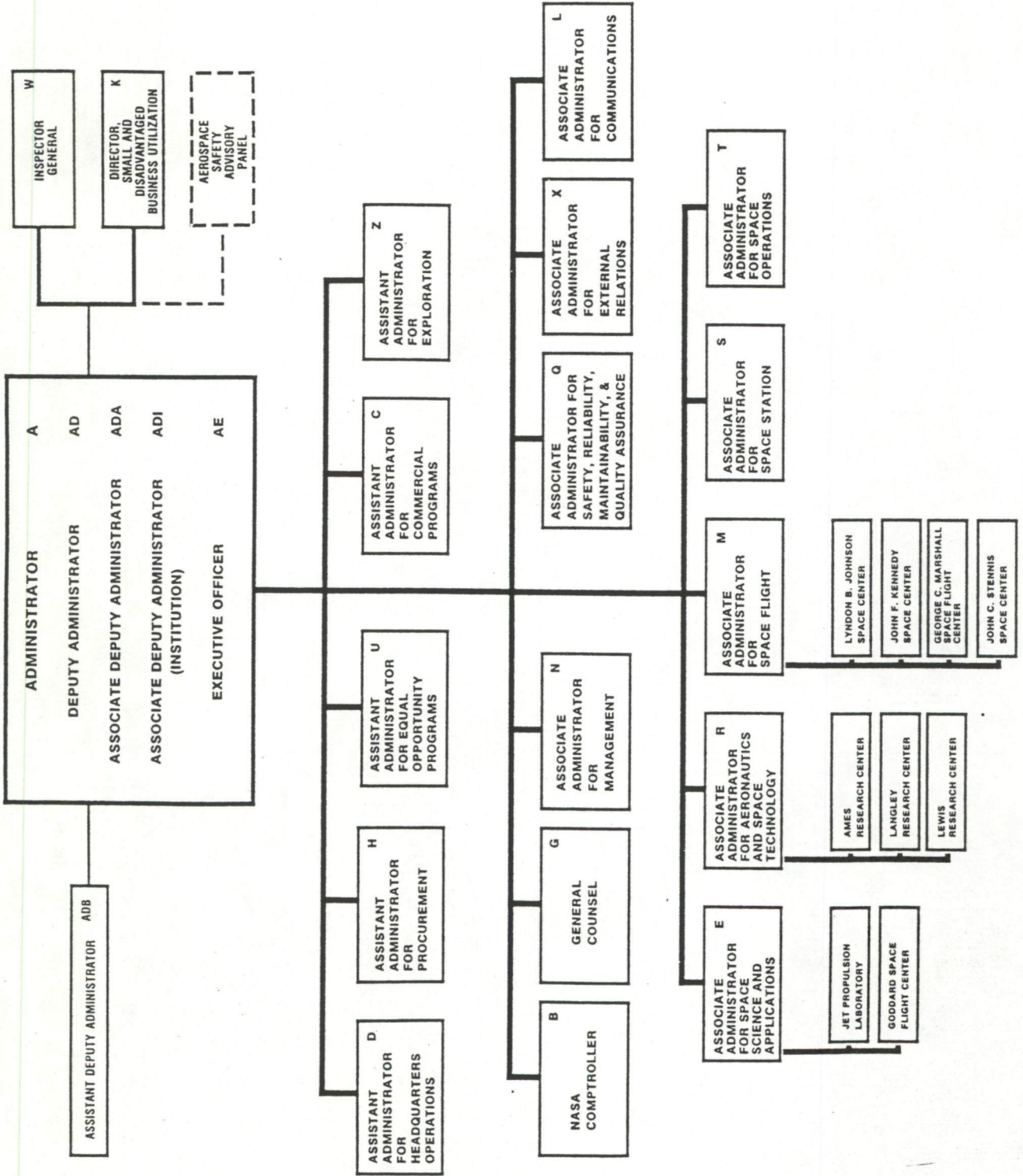
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NASA HEADQUARTERS ORGANIZATION CHART



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

I. Description of Agency

A. Organization Chart -- See Attachment.

B. Mission, Background, and Programs

1. NASA's activities contribute to the expansion of human knowledge of phenomena in the atmosphere and space, improvement of aeronautical and space vehicles, development and operation of space vehicles, study of potential benefits from peaceful and scientific utilization, preservation of U.S. leadership in peaceful activities, coordination and exchange of U.S. defense agencies of significant R&D results, cooperation with other nations in peaceful activities, and effective utilization of U.S. scientific and engineering sources.
2. The National Aeronautics and Space Act of 1958, as amended, established NASA and provides the organic authority and framework for the U.S. space program. NASA's present day activities are specifically guided by the National Space Policy, consolidated and updated in February, 1988, which states that U.S. space leadership continues to be a fundamental objective of U.S. space activities, requiring preeminence in key areas critical to achieving our national security, scientific, technical, economic and foreign policy goals.
3. NASA programs are designed to study the distant universe, explore the solar system, observe and understand the Earth and its environment, conduct space-related life sciences, research advanced satellite communications technologies, conduct microgravity research, develop space transportation and space flight systems, establish a permanently manned space station, operate space tracking and data systems, conduct space research and technology, and foster commercial applications of space.

C. Congressional Oversight Committees

- Senate Appropriations - Subcommittee on HUD-Independent Agencies (Proxmire, Chairman; Garn, Ranking Minority).

- Senate Committee on Commerce, Science and Transportation (Hollings, Chairman; Danforth, Ranking Minority).
 - Senate Subcommittee on Science, Technology and Space (Riegle, Chairman; Pressler, Ranking Minority).
- House Appropriations - Subcommittee on HUD-Independent Agencies (Boland, Chairman; Green, Ranking Minority).
- House Committee on Science, Space and Technology (Roe, Chairman; Lujan, Ranking Minority).
 - House Subcommittee on Space Science and Applications (Nelson, Chairman; Walker, Ranking Minority).
 - House Subcommittee on Transportation, Aviation and Materials (McCurdy, Chairman; Lewis, Ranking Minority).

Key Private Sector Groups

- National Academy of Sciences and National Academy of Engineers, National Research Council, Professional Societies and Trade Associations (AIAA, AIA, etc.).

II. Budget Overview (\$ in millions)

<u>NASA Appropriation</u>	<u>1980</u>	<u>1981</u>	<u>1985</u>	<u>1988</u>	<u>1989</u>
Research and Development	\$4,091	\$4,336	\$2,468	\$3,374	\$4,192
Spaceflight, Control & Data Communications	*	*	\$3,601	\$3,908	\$4,364
Construction and Facilities	\$ 156	\$ 115	\$ 150	\$ 178	\$ 290
Research and Program Management	<u>\$ 996</u>	<u>\$1,071</u>	<u>\$1,332</u>	<u>\$1,496</u>	<u>\$1,855</u>
Total	\$5,243	\$5,522	\$7,552	\$8,956	\$10,701

* Part of R&D Appropriation until 1984.

III. A. Key Policy Issues/Events

1. Legislative:

- NASA's overall FY '90 budget request will contain 20%-plus increase even without new starts.
- FY '89 Space Station spending: Of the \$900 million appropriated for FY '89, only \$385 million can be expended before May 15, 1989; remaining \$515 million can then be expended if the President does not recommend rescission before May 15.

2. Program:

- Shuttle manifest - pricing, scheduling, implication of approaching solid rocket fuel shortage.
- Human exploration of the Solar System: future Presidential decision on Moon vs. Mars.
- Shuttle operations - ways to streamline and reduce operating costs.
- Future unmanned heavy-lift: USAF/NASA requirements.
- Future manned access to orbit: National Aerospace Plane (NASP); next-generation Shuttle system (Shuttle II).
- Space stations - planning and design.
- Commercial issues: Commercially Developed Space Facility (CDSF) need and market; partnership vs. laissez faire; U.S. use of foreign launch services.
- National Aeronautics and Space Council: scope, authorities, structure, functions, funding, staff, agenda.
- Initiate "Mission to Planet Earth" program.

B. Vice President George Bush's Positions

- Full commitment to manned and unmanned exploration of near and far space. George Bush believes that such a long-term commitment is important to our

national security, economic growth and quality of life on earth. Ambitious goals will be set to reestablish U. S. leadership and preeminence in space.

- The reestablishment of the National Aeronautics and Space Council. This high-level Council, to be chaired by the Vice President, will develop a comprehensive strategy for space and will serve as the focal point for international programs as well as the coordinating body for all national space activity.
- NASA should remain the lead agency in exploring the frontiers of space science and technology. What it should not be is a freight service for routine commercial payloads. That should be the province of the private sector.
- Endorsement of the "Mission to Planet Earth" program. This mission will create a global observation system in space aimed at developing a fundamental understanding of the Earth system in order to predict changes that might occur, either naturally or as a result of human activity. Recent concerns, such as holes in the ozone layer and the warming of the Earth through the "greenhouse effect," are examples of immediate application.
- Commitment to the development of an operational, fully manned space station by 1996. The space station represents our next critical step in space. It will allow us not only to pursue scientific experiments, but also to make progress in becoming acclimated to living and working in space.
- A belief that our space effort must incorporate elements of not only pure science and exploration, but also national security and economic growth. To support this belief, Mr. Bush has endorsed the construction of a replacement shuttle, the development of alternate heavy-lift launch vehicles, the aerospace plane and Project Pathfinder.
- A commitment to a vigorous SDI program. The Soviets have been working on strategic defense for a long time. We must continue this critical research program.

- Support participation of the private sector in revitalizing our space program. The Space Station program and various ongoing initiatives in developing transport and launch capabilities, are examples wherein private sector involvement are, and will be, encouraged and supported.
- A commitment to the furtherance of international cooperation in space. In the defense of our country, or in the interest of economic growth, we must and will compete with other spacefaring nations. However, the expansion of our frontiers to the far reaches of the solar system should be a matter for cooperation among the peoples of the world. Our five-year research agreement with the Soviets is a first step. The Space Station and Mission to Planet Earth are examples of the types of cooperative programs that will be encouraged and undertaken.

C. Calendar of Key Events (and Potential Events):

- Mid-November - STS-27 Atlantis Shuttle launch.
- November-December -- Select Space Council Executive Director and NASA Administrator.
- Mid-February - Shuttle Discovery launch.
- May 15, 1989 -- Remaining \$515 million of FY '89 Space Station funds released unless rescinded by President.
- July 20 - 20th anniversary of Apollo II lunar landing. Ideal time for major announcement of space policy.

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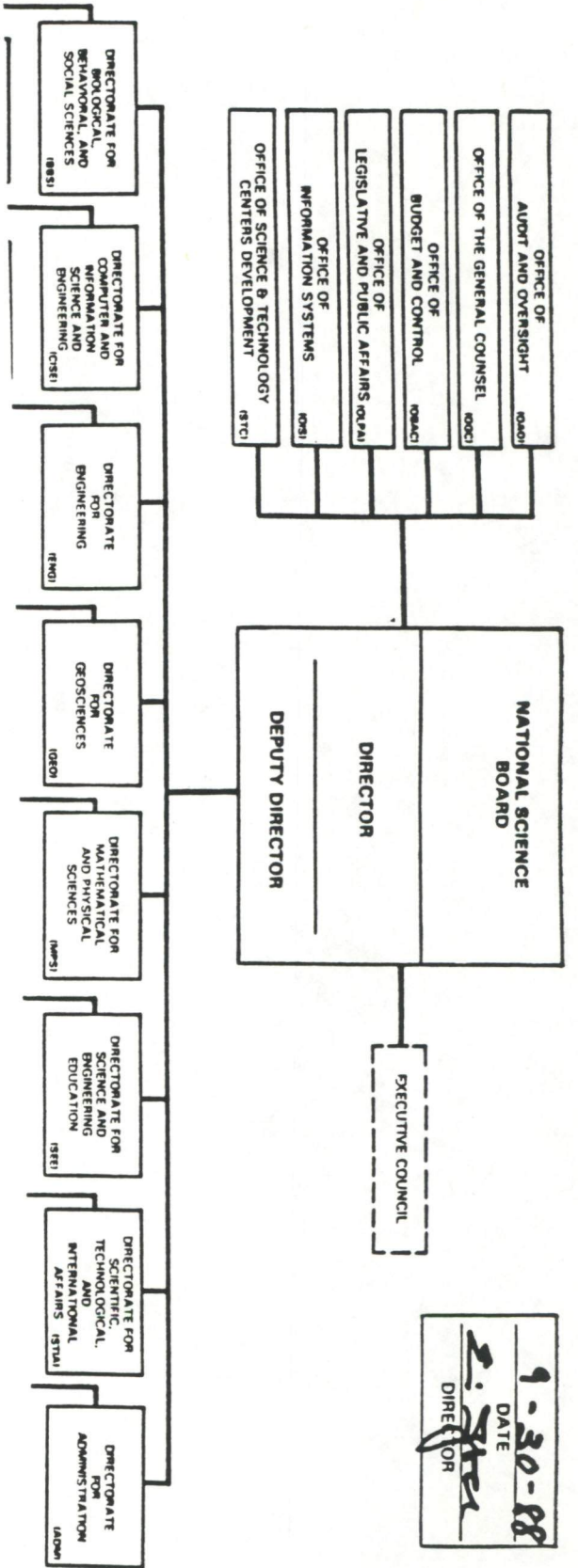
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NATIONAL SCIENCE FOUNDATION



1-30-88
 DATE
 S. J. STEIN
 DIRECTOR

NATIONAL SCIENCE FOUNDATION

I. Description of Agency

A. Organization Chart - See Attachment.

B. Mission, Background, and Programs

The National Science Foundation (NSF) is an independent federal agency that provides financial and other support for research, education, and related activities in science, mathematics, and engineering. NSF was created by the National Science Foundation Act of 1950, 42 U.S.C., Sec. 1861 et seq.

C. Congressional Oversight and Key Private Sector Groups

- Senate Appropriations - Subcommittee on HUD-Independent Agencies (Proxmire, Chairman; Garn, Ranking Minority). (Proxmire retiring.)
- Senate Labor and Human Resources (Kennedy, Chairman; Hatch, Ranking Minority).
- Senate Commerce, Science and Transportation - (Hollins, Chairman; Danforth, Ranking Minority).
- House Appropriations - Subcommittee on HUD-Independent Agencies (Boland, Chairman; Green, Ranking Minority). (Boland retiring - replaced by Traxler.)
- House Science, Space and Technology Committee (Roe, Chairman; Lujan, Ranking Minority). (Lujan retiring - replaced by Walker.)

The Foundation maintains close relations with all major scientific, engineering, and educational organizations, including the National Academy of Sciences, the National Academy of Engineers.

II. Budget Overview (\$ in millions)

	<u>1980</u>	<u>1981</u>	<u>1985</u>	<u>1988</u>	<u>1989</u>
Total NSF	\$ 990.5	\$1,011.4	\$1,501.6	\$1,717.0	\$1,885.0

III. Key Policy Issues and Events

A. Key Issues Requiring Presidential Attention from January 20, 1989 to December 31, 1989.

1. Legislative:

- a. FY '90 HUD-Independent Agencies Appropriation Bill.

2. Program:

- a. The Human Pipeline: We must improve education at all levels.
- b. Accelerating Knowledge Transfer: This depends on better cooperation among industry, universities, and governments.
- c. Broader Participation in Science and Engineering: Expand our nation's science and technology base.
- d. Facilities and Instrumentation: Provide better scientific instrumentation and modernize academic research facilities.

B. Vice President George Bush's Positions

- A commitment to double the NSF budget over the next five years.
- A key priority in the increased funding for NSF is the retooling of science and engineering laboratories at colleges and universities.
- Supports making all Federal R&D authorizations for five years and all R&D appropriations for two years to provide a higher degree of certainty to laboratories and programs.
- George Bush believes that the study of the sciences should be part of every child's basic education. He supports increased funding for magnet schools and believes that support for science education must continue to be a key priority for NSF.
- George Bush supports and encourages partnerships between business, universities and government to advance technologies and the rapid transfer of new knowledge from the laboratory to the marketplace.

- George Bush believes that the federal investment in research and development should focus on basic research and that the private sector should decide which technologies will have the most potential in the marketplace.
- George Bush will convene a conference of the nation's governors to discuss education issues. Special emphasis will be placed on setting goals for improving math and science education.

C. Calendar of Key Events

- National Science and Technology Week (NSTW): Held each year in April, is sponsored by NSF and supported entirely by industry.
- Presidential Young Investigators Awards: Announced in March or April of each year.
- National Medal of Science and Technology.
- Presidential Science Teachers' Awards: Presented in October.
- Convene White House Conference on Education.

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OFFICE OF SCIENCE AND TECHNOLOGY

1. Description of Office and Science Technology (OSTP)

A. Organization Chart

The organization of OSTP is at the discretion of the Director and has varied over the years. However, pursuant to P.L. 94-282, OSTP is to be headed by a Director, to be appointed by the President and confirmed by the Senate. The Director may have not more than four Presidentially appointed Associate Directors, all of whom are to be confirmed by the Senate.

B. Mission, Background, and Programs

Established in 1976, pursuant to P.L. 94-282, the National Science and Technology Policy, Organization, and Priorities Act of 1976, created the "Director" of OSTP, to be appointed as stated above and who is assigned "the primary function of providing within the Executive Office of the President, advice on the scientific, engineering, and technological aspects of issues that require attention at the highest levels of Government."

C. Congressional Oversight and Key Private Sector Groups

Key Committees are:

- Senate Committee on Commerce, Science and Transportation (Senator Fritz Hollings, Chairman; Senator John Danforth, Ranking Minority).
- Subcommittee on Science, Technology and Space (Senator D. W. Riegle, Jr., Chairman; Senator L. Pressler, Ranking Minority).
- Senate Committee on Appropriations (Senator Robert Byrd, most likely Chairman; Senator Mark Hatfield, Ranking Minority).
- Subcommittee on HUD-Independent Agencies (Chairman to be determined, possibly Senator Barbara Mikulski; Senator Jake Garn, Ranking Minority).

- House Committee on Science, Space and Technology (Roe, Chairman; Walker, Ranking Minority).
- Subcommittee on Science, Research and Technology (Walgren, Chairman; Boehler, Ranking Minority).
- House Committee on Appropriations (Whitten, Chairman; Conte, Ranking Minority).
- Subcommittee on HUD-Independent Agencies (Traxler, Chairman; Green, Ranking Minority).

Key Private Sector Groups:

- American Association for the Advancement of Science (AAAS), Association of American Universities (AAU), National Academy of Sciences/Engineering/National Research Council.

II. Budget Overview (\$ in millions)

<u>1980</u>	<u>1981</u>	<u>1985</u>	<u>1988</u>	<u>1989</u>
\$2.625	\$2,063	\$2,194	\$1,900	\$2.217

III. Key Policy Issues

A. Key Issues:

- Staffing of OSTP.
- The role of "civilian development" programs in the federal R&D budget.

B. Vice President Bush's Position:

- Upgrade the President's Science Advisor to Assistant to the President for Science and Technology.
- Create a President's Council of Science and Technology Advisors consisting of experts from the private sector.
- The Science Advisor would report directly to the President and will be an active member of key interagency policy groups, such as the Economic Policy Council.
- The Science Advisor will head OSTP and be responsible for developing and coordinating a federal science and technology strategy.

C. Calendar of Key Events:

- December 31, 1988 - nominations due for the National Technology Medals pursuant to 15 USC 3711.
- December 31, 1989 - OSTP Task Force on Women, Minorities and Handicapped in Science and Technology, report due pursuant to P.L. 99-383 (42 USC 1985a).
- January, 1989 - Senate confirmation hearing for OSTP Director.
- January-February, 1989 - Press conference with the Science press re: FY '90 R&D Priorities in the President's budget.
- January-February, 1989 - OSTP Posture Hearing before the House Science, Space and Technology Committee and possibly Senate Commerce Committee.
- February-March, 1989 - Nominations for the four vacancies on NSF National Science Board (vacant since 1988); eight additional vacancies will occur in 1990.
- February 1, 1989 - Report due by the Advisory Council on Federal Participation in SEMATECH established under 15 USC 4603(a); P.L. 100-180, pursuant to P.L. 100-408.
- February 15, 1989 - The annual revision to five-year outlook and the Science and Technology Report as called for by P.L. 94-282.
- February 23, 1989 - Report due to President and Congress by the National Commission on Superconductivity pursuant to section 5143 of H.R. 3, the Omnibus Trade Act (P.L. 100-308).
- August-October, 1989 - Presidential Math and Science Teachers Awards.
- September 31, 1989 - Report due by the National Advisory Committee on Semiconductors pursuant to section 5142 of H.R. 3, the Omnibus Trade Act (P.L. 100-408).
- November, 1989 - National Quality Improvement Awards pursuant to 15 USC 3711a.



Public Law 94-282
94th Congress, H. R. 10230
May 11, 1976

An Act

To establish a science and technology policy for the United States, to provide for scientific and technological advice and assistance to the President, to provide a comprehensive survey of ways and means for improving the Federal effort in scientific research and information handling, and in the use thereof, to amend the National Science Foundation Act of 1950, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National Science and Technology Policy, Organization, and Priorities Act of 1976".

National Science
and Technology
Policy, Organiza-
tion, and Prior-
ities Act of 1976.
42 USC 6601
note.

TITLE I—NATIONAL SCIENCE, ENGINEERING, AND TECHNOLOGY POLICY AND PRIORITIES

FINDINGS

Sec. 101. (a) The Congress, recognizing the profound impact of science and technology on society, and the interrelations of scientific, technological, economic, social, political, and institutional factors, hereby finds and declares that—

42 USC 6601.

(1) the general welfare, the security, the economic health and stability of the Nation, the conservation and efficient utilization of its natural and human resources, and the effective functioning of government and society require vigorous, perceptive support and employment of science and technology in achieving national objectives;

(2) the many large and complex scientific and technological factors which increasingly influence the course of national and international events require appropriate provision, involving long-range, inclusive planning as well as more immediate program development, to incorporate scientific and technological knowledge in the national decisionmaking process;

(3) the scientific and technological capabilities of the United States, when properly fostered, applied, and directed, can effectively assist in improving the quality of life, in anticipating and resolving critical and emerging international, national, and local problems, in strengthening the Nation's international economic position, and in furthering its foreign policy objectives;

(4) Federal funding for science and technology represents an investment in the future which is indispensable to sustained national progress and human betterment, and there should be a continuing national investment in science, engineering, and technology which is commensurate with national needs and opportunities and the prevalent economic situation;

(5) the manpower pool of scientists, engineers, and technicians, constitutes an invaluable national resource which should be utilized to the fullest extent possible; and

(6) the Nation's capabilities for technology assessment and for technological planning and policy formulation must be strengthened at both Federal and State levels.

Priority goals.

(b) As a consequence, the Congress finds and declares that science and technology should contribute to the following priority goals without being limited thereto:

- (1) fostering leadership in the quest for international peace and progress toward human freedom, dignity, and well-being by enlarging the contributions of American scientists and engineers to the knowledge of man and his universe, by making discoveries of basic science widely available at home and abroad, and by utilizing technology in support of United States national and foreign policy goals;
- (2) increasing the efficient use of essential materials and products, and generally contributing to economic opportunity, stability, and appropriate growth;
- (3) assuring an adequate supply of food, materials, and energy for the Nation's needs;
- (4) contributing to the national security;
- (5) improving the quality of health care available to all residents of the United States;
- (6) preserving, fostering, and restoring a healthful and esthetic natural environment;
- (7) providing for the protection of the oceans and coastal zones, and the polar regions, and the efficient utilization of their resources;
- (8) strengthening the economy and promoting full employment through useful scientific and technological innovations;
- (9) increasing the quality of educational opportunities available to all residents of the United States;
- (10) promoting the conservation and efficient utilization of the Nation's natural and human resources;
- (11) improving the Nation's housing, transportation, and communication systems, and assuring the provision of effective public services throughout urban, suburban, and rural areas;
- (12) eliminating air and water pollution, and unnecessary, unhealthful, or ineffective drugs and food additives; and
- (13) advancing the exploration and peaceful uses of outer space.

DECLARATION OF POLICY

42 USC 6602.

SEC. 102. (a) PRINCIPLES.—In view of the foregoing, the Congress declares that the United States shall adhere to a national policy for science and technology which includes the following principles:

- (1) The continuing development and implementation of strategies for determining and achieving the appropriate scope, level, direction, and extent of scientific and technological efforts based upon a continuous appraisal of the role of science and technology in achieving goals and formulating policies of the United States, and reflecting the views of State and local governments and representative public groups;
- (2) The enlistment of science and technology to foster a healthy economy in which the directions of growth and innovation are compatible with the prudent and frugal use of resources and with the preservation of a benign environment;
- (3) The conduct of science and technology operations so as to serve domestic needs while promoting foreign policy objectives.
- (4) The recruitment, education, training, retraining, and beneficial use of adequate numbers of scientists, engineers, and technicians.

90 STAT. 460 (1)

100 STAT. 60

nologists, and the promotion by the Federal Government of the effective and efficient utilization in the national interest of the Nation's human resources in science, engineering, and technology.

(5) The development and maintenance of a solid base for science and technology in the United States, including: (A) strong participation of and cooperative relationships with State and local governments and the private sector; (B) the maintenance and strengthening of diversified scientific and technological capabilities in government, industry, and the universities, and the encouragement of independent initiatives based on such capabilities, together with elimination of needless barriers to scientific and technological innovation; (C) effective management and dissemination of scientific and technological information; (D) establishment of essential scientific, technical and industrial standards and measurement and test methods; and (E) promotion of increased public understanding of science and technology.

(6) The recognition that, as changing circumstances require periodic revision and adaptation of title I of this Act, the Federal Government is responsible for identifying and interpreting the changes in those circumstances as they occur, and for effecting subsequent changes in title I as appropriate.

(b) IMPLEMENTATION.—To implement the policy enunciated in subsection (a) of this section, the Congress declares that:

(1) The Federal Government should maintain central policy planning elements in the executive branch which assist Federal agencies in (A) identifying public problems and objectives, (B) mobilizing scientific and technological resources for essential national programs, (C) securing appropriate funding for programs so identified, (D) anticipating future concerns to which science and technology can contribute and devising strategies for the conduct of science and technology for such purposes, (E) reviewing systematically Federal science policy and programs and recommending legislative amendment thereof when needed. Such elements should include an advisory mechanism within the Executive Office of the President so that the Chief Executive may have available independent, expert judgment and assistance on policy matters which require accurate assessments of the complex scientific and technological features involved.

(2) It is a responsibility of the Federal Government to promote prompt, effective, reliable, and systematic transfer of scientific and technological information by such appropriate methods as programs conducted by nongovernmental organizations, including industrial groups and technical societies. In particular, it is recognized as a responsibility of the Federal Government not only to coordinate and unify its own science and technology information systems, but to facilitate the close coupling of institutional scientific research with commercial application of the useful findings of science.

(3) It is further an appropriate Federal function to support scientific and technological efforts which are expected to provide results beneficial to the public but which the private sector may be unwilling or unable to support.

(4) Scientific and technological activities which may be properly supported exclusively by the Federal Government should be distinguished from those in which interests are shared with State and local governments and the private sector. Among these enti-

ties, cooperative relationships should be established which encourage the appropriate sharing of science and technology decisionmaking, funding support, and program planning and execution.

(5) The Federal Government should support and utilize engineering and its various disciplines and make maximum use of the engineering community, whenever appropriate, as an essential element in the Federal policymaking process.

(6) Comprehensive legislative support for the national science and technology effort requires that the Congress be regularly informed of the condition, health and vitality, and funding requirements of science and technology, the relation of science and technology to changing national goals, and the need for legislative modification of the Federal endeavor and structure at all levels as it relates to science and technology.

(c) PROCEDURES.—The Congress declares that, in order to expedite and facilitate the implementation of the policy enunciated in subsection (a) of this section, the following coordinate procedures are of paramount importance:

(1) Federal procurement policy should encourage the use of science and technology to foster frugal use of materials, energy, and appropriated funds; to assure quality environment; and to enhance product performance.

(2) Explicit criteria, including cost-benefit principles where practicable, should be developed to identify the kinds of applied research and technology programs that are appropriate for Federal funding support and to determine the extent of such support. Particular attention should be given to scientific and technological problems and opportunities offering promise of social advantage that are so long range, geographically widespread, or economically diffused that the Federal Government constitutes the appropriate source for undertaking their support.

(3) Federal promotion of science and technology should emphasize quality of research, recognize the singular importance of stability in scientific and technological institutions, and for urgent tasks, seek to assure timeliness of results. With particular reference to Federal support for basic research, funds should be allocated to encourage education in needed disciplines, to provide a base of scientific knowledge from which future essential technological development can be launched, and to add to the cultural heritage of the Nation.

(4) Federal patent policies should be developed, based on uniform principles, which have as their objective the preservation of incentives for technological innovation and the application of procedures which will continue to assure the full use of beneficial technology to serve the public.

(5) Closer relationships should be encouraged among practitioners of different scientific and technological disciplines, including the physical, social, and biomedical fields.

(6) Federal departments, agencies, and instrumentalities should assure efficient management of laboratory facilities and equipment in their custody, including acquisition of effective equipment, disposal of inferior and obsolete properties, and cross-servicing to maximize the productivity of costly property of all kinds. Disposal policies should include attention to possibilities for further productive use.

(7) The full use of the contributions of science and technology to support State and local government goals should be encouraged.

(8) Formal recognition should be accorded those persons whose scientific and technological achievements have contributed significantly to the national welfare.

(9) The Federal Government should support applied scientific research, when appropriate, in proportion to the probability of its usefulness, insofar as this probability can be determined; but while maximizing the beneficial consequences of technology, the Government should act to minimize foreseeable injurious consequences.

(10) Federal departments, agencies, and instrumentalities should establish procedures to insure among them the systematic interchange of scientific data and technological findings developed under their programs.

TITLE II—OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Presidential Science and Technology Advisory Organization Act of 1976.

SHORT TITLE

SEC. 201. This title may be cited as the "Presidential Science and Technology Advisory Organization Act of 1976".

42 USC 6611 note.

ESTABLISHMENT

SEC. 202. There is established in the Executive Office of the President an Office of Science and Technology Policy (hereinafter referred to in this title as the "Office").

42 USC 6611.

DIRECTOR; ASSOCIATE DIRECTORS

SEC. 203. There shall be at the head of the Office a Director who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate provided for level II of the Executive Schedule in section 5313 of title 5, United States Code. The President is authorized to appoint not more than four Associate Directors, by and with the advice and consent of the Senate, who shall be compensated at a rate not to exceed that provided for level III of the Executive Schedule in section 5314 of such title. Associate Directors shall perform such functions as the Director may prescribe.

Appointment. Compensation. 42 USC 6612.

FUNCTIONS

SEC. 204. (a) The primary function of the Director is to provide, within the Executive Office of the President, advice on the scientific, engineering, and technological aspects of issues that require attention at the highest levels of Government.

42 USC 6613.

(b) In addition to such other functions and activities as the President may assign, the Director shall—

(1) advise the President of scientific and technological considerations involved in areas of national concern including, but not limited to, the economy, national security, health, foreign relations, the environment, and the technological recovery and use of resources;

(2) evaluate the scale, quality, and effectiveness of the Federal effort in science and technology and advise on appropriate actions;

(3) advise the President on scientific and technological considerations with regard to Federal budgets, assist the Office of Management and Budget with an annual review and analysis of funding proposed for research and development in budgets of all Federal agencies, and aid the Office of Management and Budget and the agencies throughout the budget development process; and

(4) assist the President in providing general leadership and coordination of the research and development programs of the Federal Government.

POLICY PLANNING, ANALYSIS, AND ADVICE

42 USC 6614.

SEC. 205. (a) The Office shall serve as a source of scientific and technological analysis and judgment for the President with respect to major policies, plans, and programs of the Federal Government. In carrying out the provisions of this section, the Director shall—

(1) seek to define coherent approaches for applying science and technology to critical and emerging national and international problems and for promoting coordination of the scientific and technological responsibilities and programs of the Federal departments and agencies in the resolution of such problems;

(2) assist and advise the President in the preparation of the Science and Technology Report, in accordance with section 209 of this Act;

(3) gather timely and authoritative information concerning significant developments and trends in science, technology, and in national priorities, both current and prospective, to analyze and interpret such information for the purpose of determining whether such developments and trends are likely to affect achievement of the priority goals of the Nation as set forth in section 101(b) of this Act;

(4) encourage the development and maintenance of an adequate data base for human resources in science, engineering, and technology, including the development of appropriate models to forecast future manpower requirements, and assess the impact of major governmental and public programs on human resources and their utilization;

(5) initiate studies and analyses, including systems analyses and technology assessments, of alternatives available for the resolution of critical and emerging national and international problems amenable to the contributions of science and technology and, insofar as possible, determine and compare probable costs, benefits, and impacts of such alternatives;

(6) advise the President on the extent to which the various scientific and technological programs, policies, and activities of the Federal Government are likely to affect the achievement of the priority goals of the Nation as set forth in section 101(b) of this Act;

(7) provide the President with periodic reviews of Federal statutes and administrative regulations of the various departments and agencies which affect research and development activities, both internally and in relation to the private sector, or which may interfere with desirable technological innovation, together with

Science and Technology Report.

Data base.

Studies and analyses.

recommendations for their elimination, reform, or updating as appropriate;

(8) develop, review, revise, and recommend criteria for determining scientific and technological activities warranting Federal support, and recommend Federal policies designed to advance (A) the development and maintenance of broadly based scientific and technological capabilities, including human resources, at all levels of government, academia, and industry, and (B) the effective application of such capabilities to national needs;

(9) assess and advise on policies for international cooperation in science and technology which will advance the national and international objectives of the United States;

(10) identify and assess emerging and future areas in which science and technology can be used effectively in addressing national and international problems;

(11) report at least once each year to the President on the overall activities and accomplishments of the Office, pursuant to section 209 of this Act;

(12) periodically survey the nature and needs of national science and technology policy and make recommendations to the President, for review and transmission to the Congress, for the timely and appropriate revision of such policy in accordance with section 102(a)(6) of this Act; and

(13) perform such other duties and functions and make and furnish such studies and reports thereon, and recommendations with respect to matters of policy and legislation as the President may request.

(b) (1) The Director shall establish an Intergovernmental Science, Engineering, and Technology Advisory Panel (hereinafter referred to as the "Panel"), whose purpose shall be to (A) identify and define civilian problems at State, regional, and local levels which science, engineering, and technology may assist in resolving or ameliorating; (B) recommend priorities for addressing such problems; and (C) advise and assist the Director in identifying and fostering policies to facilitate the transfer and utilization of research and development results so as to maximize their application to civilian needs.

(2) The Panel shall be composed of (A) the Director of the Office, or his representative; (B) at least ten members representing the interests of the States, appointed by the Director of the Office after consultation with State officials; and (C) the Director of the National Science Foundation, or his representative.

(3) (A) The Director of the Office, or his representative, shall serve as Chairman of the Panel.

(B) The Panel shall perform such functions as the Chairman may prescribe, and shall meet at the call of the Chairman.

(4) Each member of the Panel shall, while serving on business of the Panel, be entitled to receive compensation at a rate not to exceed the daily rate prescribed for GS-18 of the General Schedule under section 5332 of title 5, United States Code, including traveltime, and, while so serving away from his home or regular place of business, he may be allowed travel expenses, including per diem in lieu of subsistence in the same manner as the expenses authorized by section 5703 (b) of title 5, United States Code, for persons in government service employed intermittently.

Report to President.

Intergovernmental Science, Engineering, and Technology Advisory Panel. Establishment.

Membership.

Chairman.

Compensation.

5 USC 5332 note.

FIVE-YEAR OUTLOOK

42 USC 6615.

SEC. 206. (a) Within its first year of operation, the Office shall, to the extent practicable, within the limitations of available knowledge and resources, and with appropriate assistance from the departments and agencies and such consultants and contractors as the Director deems necessary, identify and describe situations and conditions which warrant special attention within the next five years, involving—

(1) current and emerging problems of national significance that are identified through scientific research, or in which scientific or technical considerations are of major significance; and

(2) opportunities for, and constraints on, the use of new and existing scientific and technological capabilities which can make a significant contribution to the resolution of problems identified under paragraph (1) of this subsection or to the achievement of Federal program objectives or national goals, including those set forth in section 101 (b) of this Act.

Annual revision.

(b) The Office shall annually revise the five-year outlook developed under subsection (a) of this section so that it takes account of new problems, constraints and opportunities and changing national goals and circumstances, and shall extend the outlook so that it always extends five years into the future.

Consultation.

(c) The Director of the Office shall consult as necessary with officials of the departments and agencies having programs and responsibilities relating to the problems, constraints, and opportunities identified under subsections (a) and (b) of this section, in order to—

(1) identify and evaluate alternative actions that might be taken by the Federal Government, State and local governments, or the private sector to deal with such problems, constraints, or opportunities; and

(2) ensure that alternative actions identified under paragraph (1) of this subsection are fully considered by departments and agencies in formulating their budget, program, and legislative proposals.

Consultation.

(d) The Director of the Office shall consult as necessary with officials of the Office of Management and Budget and other appropriate elements of the Executive Office of the President to ensure that the problems, constraints, opportunities, and alternative actions identified under subsections (a), (b), and (c) of this section are fully considered in the development of the President's Budgets and legislative programs.

ADDITIONAL FUNCTIONS OF THE DIRECTOR;
ADMINISTRATIVE PROVISIONS

42 USC 6616.

SEC. 207. (a) The Director shall, in addition to the other duties and functions set forth in this title—

(1) serve as Chairman of the Federal Coordinating Council for Science, Engineering, and Technology established under title IV; and

(2) serve as a member of the Domestic Council.

(b) For the purpose of assuring the optimum contribution of science and technology to the national security, the Director, at the request of the National Security Council, shall advise the National Security Council in such matters concerning science and technology as relate to national security.

(c) In carrying out his functions under this Act, the Director is authorized to—

(1) appoint such officers and employees as he may deem necessary to perform the functions now or hereafter vested in him and to prescribe their duties;

(2) obtain services as authorized by section 3109 of title 5 of the United States Code, at rates not to exceed the rate prescribed for grade GS-18 of the General Schedule by section 5332 of title 5 of the United States Code; and

(3) enter into contracts and other arrangements for studies, analyses, and other services with public agencies and with private persons, organizations, or institutions, and make such payments as he deems necessary to carry out the provisions of this Act without legal consideration, without performance bonds, and without regard to section 3709 of the Revised Statutes (41 U.S.C. 5).

5 USC 5332
note.

COORDINATION WITH OTHER ORGANIZATIONS

SEC. 208. (a) In exercising his functions under this Act, the Director shall—

42 USC 6617.

(1) work in close consultation and cooperation with the Domestic Council, the National Security Council, the Council on Environmental Quality, the Council of Economic Advisers, the Office of Management and Budget, the National Science Board, and the Federal departments and agencies;

(2) utilize the services of consultants, establish such advisory panels, and, to the extent practicable, consult with State and local governmental agencies, with appropriate professional groups, and with such representatives of industry, the universities, agriculture, labor, consumers, conservation organizations, and such other public interest groups, organizations, and individuals as he deems advisable;

(3) hold such hearings in various parts of the Nation as he deems necessary, to determine the views of the agencies, groups, and organizations referred to in paragraph (2) of this subsection and of the general public, concerning national needs and trends in science and technology; and

Hearings.

(4) utilize with their consent to the fullest extent possible the services, personnel, equipment, facilities, and information (including statistical information) of public and private agencies and organizations, and individuals, in order to avoid duplication of effort and expense, and may transfer funds made available pursuant to this Act to other Federal agencies as reimbursement for the utilization of such personnel, services, facilities, equipment, and information.

(b) Each department, agency, and instrumentality of the Executive Branch of the Government, including any independent agency, is authorized to furnish the Director such information as the Director deems necessary to carry out his functions under this Act.

(c) Upon request, the Administrator of the National Aeronautics and Space Administration is authorized to assist the Director with respect to carrying out his activities conducted under paragraph (5) of section 205 (a) of this Act.

SCIENCE AND TECHNOLOGY REPORT

Transmittal to Congress.
42 USC 6618.

SEC. 209. (a) The President shall transmit annually to the Congress, beginning February 15, 1978, a Science and Technology Report (hereinafter referred to as the "Report") which shall be prepared by the Office, with appropriate assistance from Federal departments and agencies and such consultants and contractors as the Director deems necessary. The report shall draw upon the information prepared by the Director pursuant to section 206 of this Act, and to the extent practicable, within the limitations of available knowledge and resources, discuss such issues as—

(1) a review of developments of national significance in science and technology;

(2) the significant effects of current and projected trends in science and technology on the social, economic, and other requirements of the Nation;

(3) a review and appraisal of selected science- and technology-related programs, policies, and activities of the Federal Government;

(4) an inventory and forecast of critical and emerging national problems the resolution of which might be substantially assisted by the application of science and technology;

(5) the identification and assessment of scientific and technological measures that can contribute to the resolution of such problems, in light of the related social, economic, political, and institutional considerations;

(6) the existing and projected scientific and technological resources, including specialized manpower, that could contribute to the resolution of such problems; and

(7) recommendations for legislation on science- and technology-related programs and policies that will contribute to the resolution of such problems.

(b) In preparing the Report under subsection (a) of this section, the Office shall make maximum use of relevant data available from the National Science Foundation and other Government departments and agencies.

(c) The Director shall insure that the Report, in the form approved by the President, is printed and made available as a public document.

Public document.

TITLE III—PRESIDENT'S COMMITTEE ON SCIENCE AND TECHNOLOGY

ESTABLISHMENT

42 USC 6631.

Sec. 301. The President shall establish within the Executive Office of the President a President's Committee on Science and Technology (hereinafter referred to as the "Committee").

MEMBERSHIP

42 USC 6632.

Sec. 302. (a) The Committee shall consist of—

(1) the Director of the Office of Science and Technology Policy established under title II of this Act; and

(2) not less than eight nor more than fourteen other members appointed by the President not more than sixty days after the Director has assumed office (as provided in section 203 of this Act).

(b) Members of the Committee appointed by the President pursuant to subsection (a) (2) of this section shall—

(1) be qualified and distinguished in one or more of the following areas: science, engineering, technology, information dissemination, education, management, labor, or public affairs;

(2) be capable of critically assessing the policies, priorities, programs, and activities of the Nation, with respect to the findings, policies, and purposes set forth in title I; and

(3) shall collectively constitute a balanced composition with respect to (A) fields of science and engineering, (B) academic, industrial, and government experience, and (C) business, labor, consumer, and public interest points of view.

(c) The President shall appoint one member of the Committee to serve as Chairman and another member to serve as Vice Chairman for such periods as the President may determine.

(d) Each member of the Committee who is not an officer of the Federal Government shall, while serving on business of the Committee, be entitled to receive compensation at a rate not to exceed the daily rate prescribed for GS-18 of the General Schedule under section 5332 of title 5, United States Code, including traveltime, and while so serving away from his home or regular place of business he may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as the expenses authorized by section 5703(b) of title 5, United States Code, for persons in Government service employed intermittently.

Chairman.

Compensation.

5 USC 5332 note.

FEDERAL SCIENCE, ENGINEERING, AND TECHNOLOGY SURVEY

SEC. 303. (a) The Committee shall survey, examine, and analyze the overall context of the Federal science, engineering, and technology effort including missions, goals, personnel, funding, organization, facilities, and activities in general, taking adequate account of the interests of individuals and groups that may be affected by Federal scientific, engineering, and technical programs, including, as appropriate, consultation with such individuals and groups. In carrying out its functions under this section, the Committee shall, among other things, consider needs for—

42 USC 6633.

(1) organizational reform, including institutional realignment designed to place Federal agencies whose missions are primarily or solely devoted to scientific and technological research and development, and those agencies primarily or solely concerned with fuels, energy, and materials, within a single cabinet-level department;

(2) improvements in existing systems for handling scientific and technical information on a Government-wide basis, including consideration of the appropriate role to be played by the private sector in the dissemination of such information;

(3) improved technology assessment in the executive branch of the Federal Government;

(4) improved methods for effecting technology innovation, transfer, and use;

(5) stimulating more effective Federal-State and Federal-industry liaison and cooperation in science and technology, including the formation of Federal-State mechanisms for the mutual pursuit of this goal;

(6) reduction and simplification of Federal regulations and administrative practices and procedures which may have the effect of retarding technological innovation or opportunities for its utilization;

(7) a broader base for support of basic research;

(8) ways of strengthening the Nation's academic institutions' capabilities for research and education in science and technology;

(9) ways and means of effectively integrating scientific and technological factors into our national and international policies;

(10) technology designed to meet community and individual needs;

(11) maintenance of adequate scientific and technological manpower with regard to both quality and quantity;

(12) improved systems for planning and analysis of the Federal science and technology programs; and

(13) long-range study, analysis, and planning in regard to the application of science and technology to major national problems or concerns.

Interim report.

(b)(1) Within twelve months from the time the Committee is activated in accordance with section 302(a) of this Act, the Committee shall issue an interim report of its activities and operations to date. Not more than twenty-four months from the time the Committee is activated, the Committee shall submit a final report of its activities, findings, conclusions, and recommendations, including such supporting data and material as may be necessary, to the President.

Report to President.

Transmittal to Congress.

(2) The President, within sixty days of receipt thereof, shall transmit each such report to each House of Congress together with such comments, observations, and recommendations thereon as he deems appropriate.

CONTINUATION OF COMMITTEE

42 USC 6634.

Sec. 304. (a) Ninety days after submission of the final report prepared under section 303 of this Act, the Committee shall cease to exist, unless the President, before the expiration of the ninety-day period, makes a determination that it is advantageous for the Committee to continue in being.

(b) If the President determines that it is advantageous for the Committee to continue in being, (1) the Committee shall exercise such functions as are prescribed by the President; and (2) the members of the Committee shall serve at the pleasure of the President.

STAFF AND CONSULTANT SUPPORT

42 USC 6635.

Sec. 305. (a) In the performance of its functions under sections 303 and 304 of this Act, the Committee is authorized—

(1) to select, appoint, employ, and fix the compensation of such specialists and other experts as may be necessary for the carrying out of its duties and functions, and to select, appoint, and employ, subject to the civil service laws, such other officers and employees as may be necessary for carrying out its duties and functions; and

(2) to provide for participation of such civilian and military personnel as may be detailed to the Committee pursuant to subsection (b) of this section for carrying out the functions of the Committee.

(b) Upon request of the Committee, the head of any Federal department, agency, or instrumentality is authorized (1) to furnish to

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the Committee such information as may be necessary for carrying out its functions and as may be available to or procurable by such department, agency, or instrumentality, and (2) to detail to temporary duty with the Committee on a reimbursable basis such personnel within his administrative jurisdiction as it may need or believe to be useful for carrying out its functions. Each such detail shall be without loss of seniority, pay, or other employee status, to civilian employees so detailed, and without loss of status, rank, office, or grade, or of any emolument, perquisite, right, privilege, or benefit incident thereto to military personnel so detailed. Each such detail shall be made pursuant to an agreement between the Chairman and the head of the relevant department, agency, or instrumentality, and shall be in accordance with the provisions of subchapter III of chapter 33, title 5, United States Code.

5 USC 3341.

TITLE IV—FEDERAL COORDINATING COUNCIL FOR SCIENCE, ENGINEERING, AND TECHNOLOGY

ESTABLISHMENT AND FUNCTIONS

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SEC. 401. (a) There is established the Federal Coordinating Council for Science, Engineering, and Technology (hereinafter referred to as the "Council").

42 USC 6651.

(b) The Council shall be composed of the Director of the Office of Science and Technology Policy and one representative of each of the following Federal agencies: Department of Agriculture, Department of Commerce, Department of Defense, Department of Health, Education, and Welfare, Department of Housing and Urban Development, Department of the Interior, Department of State, Department of Transportation, Veterans' Administration, National Aeronautics and Space Administration, National Science Foundation, Environmental Protection Agency, and Energy Research and Development Administration. Each such representative shall be an official of policy rank designated by the head of the Federal agency concerned.

Membership.

(c) The Director of the Office of Science and Technology Policy shall serve as Chairman of the Council. The Chairman may designate another member of the Council to act temporarily in the Chairman's absence as Chairman.

Chairman.

(d) The Chairman may (1) request the head of any Federal agency not named in subsection (b) of this section to designate a representative to participate in meetings or parts of meetings of the Council concerned with matters of substantial interest to such agency, and (2) invite other persons to attend meetings of the Council.

(e) The Council shall consider problems and developments in the fields of science, engineering, and technology and related activities affecting more than one Federal agency, and shall recommend policies and other measures designed to—

- (1) provide more effective planning and administration of Federal scientific, engineering, and technological programs,
- (2) identify research needs including areas requiring additional emphasis,
- (3) achieve more effective utilization of the scientific, engineering, and technological resources and facilities of Federal agencies, including the elimination of unwarranted duplication, and
- (4) further international cooperation in science, engineering, and technology.

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(f) The Council shall perform such other related advisory duties as shall be assigned by the President or by the Chairman.

(g) For the purpose of carrying out the provisions of this section, each Federal agency represented on the Council shall furnish necessary assistance to the Council. Such assistance may include—

(1) detailing employees to the Council to perform such functions, consistent with the purposes of this section, as the Chairman may assign to them, and

(2) undertaking, upon request of the Chairman, such special studies for the Council as come within the functions herein assigned.

Subcommittees
and panels,
establishment.

(h) For the purpose of conducting studies and making reports as directed by the Chairman, standing subcommittees and panels of the Council may be established.

ABOLITION OF FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY

42 USC 1862
note.
42 USC 1862
note.

SEC. 402. The Federal Council for Science and Technology, established pursuant to Executive Order 10807, issued March 13, 1959, as amended by Executive Order 11381, issued November 8, 1967, is hereby abolished.

TITLE V—GENERAL PROVISIONS

AUTHORIZATION

42 USC 6671.

SEC. 501. (a) For the purpose of carrying out title II of this Act, there are authorized to be appropriated—

(1) \$750,000 for the fiscal year ending June 30, 1976;

(2) \$500,000 for the period beginning July 1, 1976, and ending September 30, 1976;

(3) \$3,000,000 for the fiscal year ending September 30, 1977; and

(4) such sums as may be necessary for each of the succeeding fiscal years.

(b) For the purpose of carrying out title III of this Act, there are authorized to be appropriated—

(1) \$750,000 for the fiscal year ending June 30, 1976;

(2) \$500,000 for the period beginning July 1, 1976, and ending September 30, 1976;

(3) \$1,000,000 for the fiscal year ending September 30, 1977; and

(4) such sums as may be necessary for each of the succeeding fiscal years.

STATUTORY REPEAL

5 USC app.;
42 USC 1861
note.

5 USC app. II;
50 USC app. 2271
note.

Sec. 502. Sections 1, 2, 3, and 4 of Reorganization Plan Numbered 2 of 1962 (76 Stat. 1253) and section 2 of Reorganization Plan Numbered 1 of 1973 (87 Stat. 1089) are repealed.

90 STAT. 472

STAT. 473

AMENDMENT

Pub. Law 94-282

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Pub. Law 94-282

AMENDMENT

SEC. 503. Section 4 of the National Science Foundation Act of 1950 (42 U.S.C. 1863) is amended by striking out subsection (g) and by redesignating subsections (h), (i), and (j), and all references thereto, as subsections (g), (h), and (i), respectively.

Approved May 11, 1976.

LEGISLATIVE HISTORY:

- HOUSE REPORTS: No. 94-595 (Comm. on Science and Technology) and No. 94-1046 (Comm. of Conference).
- SENATE REPORTS: No. 94-622 accompanying S. 32 (Committees on Labor and Public Welfare, Commerce, and Aeronautical and Space Sciences) and No. 94-765 (Comm. of Conference).
- CONGRESSIONAL RECORD:
 - Vol. 121 (1975): Nov. 6, considered and passed House.
 - Vol. 122 (1976): Feb. 4, considered and passed Senate, amended, in lieu of S. 32.
 - Apr. 27, Senate agreed to conference report.
 - Apr. 29, House agreed to conference report.
- WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS:
 - Vol. 12, No. 20 (1976): May 11, Presidential statement.

