The original documents are located in Box 32, folder "Science and Technology Policy, Office of (8)" of the James M. Cannon Files at the Gerald R. Ford Presidential Library.

MEMORANDUM

Science

OFFICE OF THE VICE PRESIDENT

WASHINGTON

xc: Jim Cannon

July 11, 1975

FOR: THE VICE PRESIDENT

FROM: DICK ALLISON

SUBJECT: Meeting of Scientists, July 17

1. Background

- Hans Mark and Simon Ramo met in Los Angeles on July 1 and put together a list of invitees, all of whom have thus far accepted (TAB A)

- Simon Ramo has sent each a memo outlining the meeting, and suggesting possible subject areas for study by task forces (TAB B);

- Simon Ramo has also drafted a suggested agenda (TAB C);

    - please note that you are asked to make introductory remarks, preside at the lunch, and join the group when they meet with the President at 5:30;

    - Simon Ramo has indicated that, if and when you have to leave the meeting, he will be glad to informally be chairman, to keep the meeting moving along;

- Hans Mark has additional observations on the meeting, which he has put in a letter to you (TAB D);

- Hans Mark has also suggested "Criteria for the Selection of Tasks [i.e., study areas]. (TAB E).

2. The President

- The President has agreed to meet with the group for 15 minutes at 5:30; he couldn't do it any earlier because of his schedule.

3. Other Information

- Hans Mark and Simon Ramo have said that they will be "secretaries" on the 17th, taking the notes and working up the consensus in the form of written recommendations for you and the President;

- Simon Ramo also asked me to tell you he will be in town mid-afternoon on the 16th (the day before the meeting) should you have any last minute questions;

- By the 16th I shall have prepared briefing books and talking points for you and for the President;

- Unless you object, it is planned to have a Domestic Council and NSC representative attend as observers.

- No press coverage is planned.

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Memo to List Attached, from Simon Ramo July 7, 1975

Subject: July 17 Meeting with Vice President Rockefeller

The meeting, as discussed already with almost all of you, will be from 10:00 a.m. to 4:00 p.m. in the Executive Office Complex in Washington, D. C. (You will shortly receive a letter from Richard Allison of the Vice President's staff, giving room number, traveling expense reimbursement and all other required information.) We shall all be guests of the Vice President for luncheon.

To confirm, the purpose of the meeting will be to exchange thoughts regarding the most urgent and important science and technology issues of the society. Pending passage by Congress of the President's proposal for an Office of Science and Technology Policy within the Executive Office of the President, it is considered advantageous to commence the task of identifying areas which are of major importance for scientific and technological development and would be suitable for study by task forces set up within the new Office. When the Office is established, its director selected and installed, and the staffing begun, an available list of recommended areas for immediate consideration (together with names of individuals believed especially competent to serve on task forces) should be helpful in speeding up action.

The candidate areas we will discuss at the meeting probably will have characteristics such as these:

1. Nature and importance such as to be totally appropriate for attention at the Presidential level.

2. Science and technology aspects dominant or at least very strong, even though most often the subject will have at least an equally important dependence on non-technological (economic, social, and political) considerations.

3. Science and technology aspects such as to require broad, interdisciplinary deliberations.

4. Interfaces between the science and technology and non-technological aspects highly complex.

Subj: July 17 Meeting with Vice President Rockefeller

5. Problem such as to lend itself to useful attack by an ad hoc task force.

One, or a few, task forces might conceivably be appointed at once (by the President, without waiting for the new Science and Technology Office to become effective) if the matter appears sufficiently clear and urgent. These early task forces might engage in an initial phase (say, a six-month period) in which they will not be concerned primarily with seeking out the detailed answer to the question. Rather, the group will try to describe a proper program (short or long-range as may be most sensible, or a combination of the two) by means of which the problem best can be handled. The initial phase may be followed by a different task (and perhaps a different task force) concerned with monitoring, continuing advice, and an effort to guide and improve the performance of the implementation program commenced as a result of the advice from the first panel.

Because the tasks will involve deliberations of interactions between scientific and technological aspects and the other important parameters, the manning of a task force should reflect this varied content. Thus, a typical task force of, say, ten individuals might include only five leading experts in the underlying science and technology, with the other five a mixture of generalists skilled in the application of science and technology to the society and specialists in the pertinent social, economic, and political issues.

A number of steps, hopefully of short duration each, will be required before a task force commences actual operations (selection of a specific problem area, definitization of the charter for the task force, selection and recruitment of a suitable chairman, selection and recruitment of the remainder of the task force, creation of a plan for meetings, arranging associated staff support). Realistically, these steps cannot be accomplished over night; they may require one or two months. At about that time, it is hoped that the bill creating the Office will have been passed, and at least an embryonic staff on hand to serve the task forces as they start their activities.

To: List Attached

Subj: July 17 Meeting with Vice President Rockefeller

Enclosed are several examples of candidate areas for discussion at the meeting. You are encouraged to be prepared to make suggestions of projects you consider suitable. We have arranged for adequate note-taking so that all proposals made in the discussion can be considered for future follow-up.

While I have knowledge that almost all of you can attend, a few had not been reached yet as this was being written. Since the time is short, we plan to assume that each of you will attend unless we hear to the contrary. A message will reach me if left with my Los Angeles office, (213) 536-1005.

Simon Ramo

SR
mr
Encls.

Nuclear Energy, Materials Control and National Security

A new level of potential nuclear proliferation has surfaced with the energy crisis. As many more nuclear reactors become available around the world, and enriched uranium and plutonium are produced, shipped and utilized at a higher rate, the problem of control of these materials has risen to new heights. Together with the increasing spread of technological know-how, this means that an increasing number of nations, even relatively small ones, could now turn available materials into at least a small number of weapons. (We can add to our concerns the possible stealing of weapons.)

The matter of control figures into recommendations, decisions, and actions, taken by a number of government agencies but Presidential level decision making may be increasingly required because of the growing breadth of the problem. How enriched uranium will be produced in the United States and in the rest of the world, and with what kind and degree of governmental control (both by the separate governments and in the sense of cooperation between them), cannot evolve intelligently without an adequate base of analytical and creative effort in the related science and technology.

Means for control of critical materials include both technological and non-technological aspects. It is proposed that the task force examine both aspects with thoroughness, and that the interactions of the technological to non-technological be considered realistically.

The task force should attempt a superior articulation of the nature of the various aspects of the problem, their interaction and integration and the laying out of alternative approaches to the handling of it. The task force's results could aid in the allocation of the various segments of the problem to the government agencies most suitable, and could provide recommendations on how to achieve the required continued integration of the overall attack on the problem.

Food and Famine

The United States probably does not have a critical problem of food supply (though our problems do include matters of pricing and distribution). However, the world food problem on the average is so severe that hundreds of millions of people will be at or near the starvation point over the next decade or two. Other millions will suffer such undernourishment as to become mental or physical cripples. More widespread birth control and increased food production and distribution (both of which will rely in major part on science and technology as well as on government policies) will have to parallel political understandings if this problem is to be handled, both in the short and the long term.

While important fragments of this developing situation are under study by numerous government and private groups around the world, there does not exist an adequate science and technology base for those aspects of the problem which are greatly influenced by science and technology. It is likely that the President will have to deal with these issues on a crash-urgency basis, that is, without the availability of adequate backup knowledge of the interrelationships of the various aspects of the problem and of the costs and benefits of alternative actions. The task force should attempt to lay out a program for changing this situation to a more satisfactory one.

International Economics and Technology Transfer

Science and technology considerations are important ingredients of, and sometimes the dominant factor in, many issues in the field of international economics and, more generally, in a variety of political-social-economics matters involving the relations of the United States to other countries. Examples of such issues are: balance of payments; trade restrictions; detente with the Soviet Union; controls on private foreign investment; "export of technology" by multinational corporations; foreign government sponsorship of competitive industrial operations (such as foreign government subsidies of their national airlines); international information exchange on energy R&D programs.

Usually, such issues are handled by the Executive Department and the Congress, or discussed by the media, with little appreciation of the importance of the underlying science and technology and the aspects of technological competition between nations. The issues overlap and interact and it is not easy to separate technological from non-technological considerations. However, a concerted effort to clarify the science and technology underpinnings of these matters should lead to an improved understanding of the issues, alternatives, and costs and penalties of specific courses of action. This better understanding should result in superior decisions.

The status of America's scientific research and advanced technological development is very fundamental to America's economic health and to world economic stability. Compatible trade and investment relationships with the rest of the world certainly require that the U. S. should plan for and demonstrate leadership in science and advanced technology in at least certain fields. In ensuring healthy peacetime economic cooperation and development -- in this discussion we are excluding military aspects -- it is of fundamental importance to move our understanding of the role of science and technology to a higher plateau.

This task force might be a continuing one. However, as a first phase an attempt should be made to understand the problem of the relationship of science and technology to international economic-social-political issues, and then to evolve ways in which specific problem areas might best be attacked. After the suggestion of improved

mechanisms and procedures, and the assigning of further responsibilities to various government agencies for implementation, the task group (or a new one) might continue as advisory for the purpose of monitoring the effort.

Productivity and Information Technology

An increasing fraction of the time of all workers in the nation (in government, business, factories, services, professions, education) is spent in the handling of information. What most people do at their jobs is obtain, store, categorize, deliberate upon, process, communicate, and utilize information. Substantial increases in the efficiency of performing such tasks means increases in productivity, which in turn means reduced costs, a counter to inflation, higher per capita income, lower government budgets, greater discretionable income for investment, higher gross national product, and improvement in the competitive position of the U. S. vis-a-vis other nations.

In the last decade, and especially the last few years, we have seen an upturn in the rate of development and future potential of new electronic information systems technology. We now have lower cost, more reliable, smaller, less energy-consuming -- and yet more sophisticated -- electronic hardware, as well as vastly superior software systems.

Some industries (airlines in automatic electronic reservation making, banks in electronic computerized teller systems, department stores in charge authorization) are rapidly installing the new technology. They are realizing gains in quality of service rendered, a substantial return on investment, and lower cost to the consumer. Routine accounting operations, both in government and in private activities, have long since gone to computerization for improved efficiency and lower costs. However, the overall gap between what is now technologically and economically feasible, and what is installed or contemplated for early installation, is very great. Shift-overs to new systems, even though they provide higher productivity after installation, still depend upon the availability of capital. Capital budgets have been squeezed owing to the combination of recession, inflation and the low profits of the immediate past and present.

In government, in particular, the potential exists of substantially decreased cost for all operations which handle information (and this covers a large fraction of government expenditures).

The proposed task force, including specialists in information technology and generalists who are skilled in the application of technology

to practical real-life problems in government and private organizations, should consider how the application of information technology to enhance productivity could be accelerated. What is the role of the federal government in this regard? Is it feasible to start a major project to plan out and then implement major changeovers in information handling in various government sectors? If so, which sectors, through what kind of implementation scheme? How would such a program be mounted? What would be its potential costs, timing, benefits? How are the technological skills of the private sector to be utilized? If a large effort is mounted to improve productivity in the government sector by the use of advanced information technology, how can the results be made to flow most readily for application in the private sector?

Communications

Increasingly, communications policy has to be dealt with at the highest federal government level. The interaction of commercial and military communications matters, the rapid development of new technology (as exemplified by communications satellites, microminiaturization, and digital communication techniques), the interrelationship of private and government participation, the growing issue of privacy, the international aspects of communications (both from the standpoint of security and peacetime economic cooperation) -- these and many other aspects of the communications field are creating a growing backlog of unfinished, unthought-out communication policy problems.

It is probably a continuing task force assignment to sort out these communications issues with emphasis on creating a solid foundation of understanding of the science and technology aspects.

Environment, Health, Safety

We badly lack an adequate scientific base for judging the effects on the health and safety of people of numerous man-made phenomena. Whether it be radiation hazards due to nuclear effects, carcinogenics, ozone-removing material in the upper atmosphere, insect controls, air pollution, or noise, the prevailing situation is one of increasing confusion.

This situation is far less tolerable than it was a few years ago because of the increasing importance of impending energy shortages and problems with the economy. A stable, low unemployment, growing economy involves steps that have to be traded off against others intended to preserve the environment and to control health and safety hazards. Decisions in this field are being delayed or are too often based on emotional and political, rather than objective, considerations. In some important areas, a near paralysis in decision making has set in. (Is it good or bad to accelerate the development and installation of nuclear reactors? Are automobile exhaust standards too severe? Can sub-sea petroleum be extracted without serious danger of contamination of the shores?)

Decisions regarding tradeoffs will always involve value judgments and the goals of the society will always be difficult to articulate and then use as guides. Available data will never be totally exact and complete. However, it would be much easier to settle the major issues if those parts of the problem susceptible to scientific analysis are adequately explored, and if the public believes the search for such data is made with competence.

Many government agencies and private groups are already presently involved and some of the work is being as competently pursued as could be arranged. However, the total effort is highly fragmented and most groups are looking at the problem from a very narrow base of consideration. The nation can do better in this area. The payoff of a superior effort would be high in terms of getting on with the making of sound decisions and the implementing of projects that are badly needed.

The task force should study how this whole problem area can be attacked. What further effort is needed? Who should carry it out?

How can the effort be integrated to the extent necessary? How can the results be communicated to provide the greatest benefit? What projects particularly deserve the highest priority?

The task force might consist of approximately a dozen individuals. There should be one or two each of experts in the physical science, engineering, and biomedical specialties involved. Several panel members should be experienced in relating the pertinent science and technology to the economic-political-social aspects.

THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE
WASHINGTON, D. C. 20201

CHARTER

PRESIDENT'S BIOMEDICAL RESEARCH PANEL

Purpose

P.L. 93-352, Title II, establishes the President's Biomedical Research Panel to review and assess, identify and make recommendations with respect to policy issues concerning the subject and content of and organization and operation of biomedical and behavioral research conducted and supported under programs of the National Institutes of Health and the National Institute of Mental Health.

Note: Does not include the Veterans Admin., AEC, NASA, Food and Drug Admin, Communicable Dis. Center, etc

Authority

Mandated by Title II of P.L. 93-352. Subject to the special provisions of Title II, this Panel is established in accordance with and is governed by the provisions of P.L. 92-463 which sets forth standards for the formation and use of advisory committees.

Function

The President's Biomedical Research Panel shall advise the President and the Congress concerning biomedical and behavioral research conducted and supported under programs of the National Institutes of Health and the National Institute of Mental Health. Note: Does not include man-power training aspects (not explicit mandate); also, no in-depth analysis of effect on colleges and universities is to be expected.

Structure

The Panel shall consist of the Chairman of the President's Cancer Panel and six members appointed by the President who by virtue of their training, experience and background are exceptionally qualified to carry out the duties of the Panel. At least five of the members shall be distinguished scientists or physicians. The President shall designate one of the appointed members to serve as Chairman of the Panel.

The six appointed members shall be appointed for the life of the Panel.

Management and staff services shall be provided by the Office of the Assistant Secretary for Health and that Office shall designate an Executive Secretary.

Meetings

Meetings shall be held monthly at the call of the Chairman, with the advance approval of a government official. A Government official is present at all meetings.

AGENDA (as of July 11, 1975)

Meeting of Science and Technology Consultants
with Vice President Rockefeller, July 17, 1975
(Vice President's Conference Room, OEOB)

10:00 a.m.

1. Introductory remarks by the Vice President - status of establishment of Office of Science and Technology Policy

2. Discussion of criteria for Task Forces

3. Discussion of Task Force issue candidates

12:00 Lunch with the Vice President [White House private dining r

1:30 p.m.

4. Selection of urgent Task Forces

5. Discussion of Task Force member candidates

6. Discussion of follow-up plans

7. Concluding comments by the Vice President and the President

4:50 p.m. - adjourn for meeting with the President

5:15 p.m. - assemble for meeting with the President (Cabinet Room or Roosevelt Room, as available)

5:30 p.m. - Meeting with the President

5:45 p.m. - Adjournment

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AMES RESEARCH CENTER
MOFFETT FIELD, CALIFORNIA 94035

REPLY TO
ATTN OF:

July 2, 1975

Vice-President Nelson A. Rockefeller
Room 275
Executive Office Building
Washington, D. C. 20501

Dear Nelson:

Please excuse the delay in my reply to the "marching orders" of June 19 on the Technology Policy Advisory matters. I am, of course, most delighted to be of any help I can. I wanted to delay this note to have the opportunity to talk with Si Ramo before I replied. We have now had several telephone conversations and yesterday we had a lengthy and very productive meeting.

We discussed a number of ideas regarding the kinds of "task forces" as well as the topics they should deal with. Most important, we are attempting to develop a set of criteria that should be employed for deciding whether a task force is actually necessary. I need not go into detail about this matter here since Si himself will be in touch with you shortly.

We also talked at length about the meeting of senior scientific and technical people that we are planning to have on or about July 17. We have what we believe is a good list - there are 16 names we will suggest. Si and I also believe that it is very important to structure the meeting in such a way that it is successful both from your viewpoint and from that of the people who attend. Specifically, there are two points we considered to be important:

(1) The meeting should have a well-defined agenda. If it is at all possible, you should be there at the beginning to perhaps provide some background information about what we have been doing in the past few months with respect to the establishment of the Science and Technology Policy Office. More important, I think that a short statement of what you and the President expect from such an office would be of great importance.

(2) If there is press coverage at (or after) the meeting it should be very carefully worked out. Personally, I would prefer no

press coverage at all. (Franklin Roosevelt used to say that advisors are most valuable if they have a "passion for anonymity". I think he was right.) However, if for some reason or other, the press is involved, then there should only be one spokesman for the group (preferably Si) and the meeting itself should be closed with a press conference afterwards.

I will be in Washington next Tuesday (July 8) and will probably drop in to see Jim Cannon on another matter. If you're in the office, I'll stick my head in the door to say 'hello'.

Best regards to all.

Sincerely,

Hans

Hans Mark

cc: Dr. Simon Ramo

Criteria for the Selection of Tasks

It is assumed that a few 'ad hoc' task forces will be formed soon to deal with some of the more urgent problems. Generally speaking, the topics that task forces will look at fall into two broad categories:

(1) Those topics dealing with an urgent political or social problem that might have a technological component. (Examples: Nuclear proliferation, health care for older people, urban mass transit, etc.) Task forces studying such topics would have a membership that would include specialists in the social, economic and political implications of the study as well as technical and scientific people. The general orientation of these groups would be toward short-term goals.

(2) Those topics that concern new technologies that are on the horizon and that will develop so that they will have political or social impact in the next decade (Examples: Genetic engineering, undersea mining, etc. etc.). Task forces studying these topics will perform the 'early warning' function that has been envisaged. The membership would be more heavily oriented toward technical experts since the essential function of these task forces would be to determine whether a given technology will actually mature to the point where it will require the attention of political people. The general orientation of these groups will be toward the long term.

The criteria used to select topics for study by task forces will differ for the short-term and the long-term categories. For the short-term, a task force should be set up if:

(1) There is no agency within the federal or state government dealing adequately with the technical aspects of the problem.

(2) There is a serious dispute between two federal agencies, the federal government and a state government or the public sector and the private sector over some technical issue.

(3) Technical people who are knowledgeable but who are not presently working on the subject can be drawn into it by the task force mechanism (essentially recruiting).

For the long-term problems, a task force should be set up if:

(1) There is a general concensus that a given technology has great potential for development to the point where it becomes socially important.

(2) There is a need to generate support for a potentially valuable area of basic science that is being neglected.

(3) There is a situation where, by providing incentives to private industry, a promising technology can be brought to fruition.

94TH CONGRESS
1ST SESSION

H. R. 9058

IN THE HOUSE OF REPRESENTATIVES

JULY 30, 1975

Mr. TEAGUE (for himself and Mr. MOSHER) introduced the following bill; which was referred to the Committee on Science and Technology

A BILL

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 and Organization Act of 1975".

TITLE I—NATIONAL SCIENCE POLICY

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—

(1) that the general welfare, the security, the economic growth 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; and

(2) that the many large and complex scientific factors which increasingly influence the course of national and international events require appropriate provision to incorporate scientific and technological knowledge in the national decisionmaking process.

(b) As a consequence, the Congress finds and declares that the Nation's goals for science and technology should include, without being limited to, the following:

(1) fostering world 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 maximizing the dissemination of 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 adequacy of food and energy for the Nation's needs;

(4) contributing to the national security;

(5) improving the Nation's health and medical care; and

(6) preserving, fostering, and restoring a healthful and esthetic natural environment, and developing improved housing and urban systems.

DECLARATION OF POLICY

Principles

SEC. 102. (a) 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 a national strategy for determining and achieving the appropriate scope, level, direction, and extent of scientific and technological efforts based upon a continuous appraisal of science and technology goals

and policies of the United States, and reflecting the views of States, municipalities, 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 concurrently promoting foreign policy objectives, and, through the allocation of research and development resources, to maintain a proper ratio in the development and export of technology between aid to lagging foreign economies and attainment of an equitable balance in world trade;

(4) the recruitment, education, training, and retraining of adequate numbers of scientists, engineers, and technologists, and insuring their full utilization;

(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 technical and industrial standards and test methods, and (E) promotion of increased public understanding of science and technology; and

(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.

Implementation

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

(1) There should be a central policy planning element in the executive branch to guide executive agencies in mobilizing resources for essential science and technology programs, to present to the Congress the justification of such programs, to aid in securing appropriate funding for those programs, and to review systematically Federal science policy and programs and to recommend legislative amendment thereof when needed. A

major component of this structure should be 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 insure prompt, effective, reliable, and systematic transfer of science and technology information by such appropriate methods as the funding of technical evaluation centers, cost sharing of information dissemination programs conducted by such nongovernmental organizations as industrial groups and technical societies, and assistance in the publication of properly certified science and technology information. 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 science and technology efforts which are intended to provide results beneficial to the public but which the private sector may be unwilling or unable to support.

(4) Science and technology 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. Cooperative relationships should be established that encourage the sharing of science and technology decisionmaking, funding support, and program planning and execution among all interested elements of society.

(5) Ways and means should be developed by which the Federal Government can determine and establish the level of national effort in science and technology which should be sustained, taking into account competing public needs and available resources.

(6) Granting the need for a variety of approaches within and among Federal, State, local, and nongovernmental activities in science and technology, it is essential that means be proportioned to ends in the conduct of science and technology programs supported or conducted by the Federal Government. Such programs should be centrally reviewed to assure rational allocation of funds and resources, to identify public problems and objectives, to anticipate future concerns to which science and technology can contribute, and to

devise strategies for the conduct of science and technology for these purposes.

(7) 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.

Procedures

(c) 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-effectiveness principles where feasible, should be developed to identify the kinds of science 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 last resort for undertaking their support. However, such projects should conform with established criteria.

(3) Federal promotion of science and technology should maximize quality of research, stability of scientific and technological institutions, and, for urgent tasks, 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) A uniform patent policy should be promulgated for all Federal agencies, having as its primary objective the application of procedures to assure the full use of beneficial technology to serve the public.

(5) Antitrust regulation to compel competitive economic pluralism should not preclude cooperation among competing firms in industrial research and development beneficial to an entire industry and to the public.

(6) Closer relationships should be encouraged among practitioners of different scientific and techno-

logical disciplines, including the physical, social, and biomedical fields.

(7) 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 hardware. Disposal policies should include attention to possibilities for further productive use.

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

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

(10) The Federal Government should support applied scientific research 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.

(11) 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

SHORT TITLE

SEC. 201. This title may be cited as the "Presidential Science and Technology Advisory Organization Act of 1975".

ESTABLISHMENT

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

EXECUTIVE DIRECTOR; ASSISTANT 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 may, at his discretion, also appoint not more than four Assistant Directors, by and with the advice and consent of the Senate, who shall be compensated at the rate provided for level III of the Executive Schedule in section 5314 of such title. Assistant Directors shall perform such functions as the Director may from time to time prescribe.

FUNCTIONS

SEC. 204. (a) The Director shall be the President's chief policy adviser and assistant with respect to scientific and technological matters.

(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, provide the Office of Management and Budget with an annual review and analysis of the proposed research and development budgets of all Federal agencies, and participate throughout the budget development process;

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

(5) provide the President and the Congress with annual reviews of Federal statutes and administrative

regulations governing the research and development activities of the various departments and agencies, together with any recommendations for their elimination, reform, or updating;

(6) develop, review, and revise criteria for determining optimum Federal support for science and technology, and recommended policies, programs, and plans for development and maintenance of a broadly based scientific and technologic capability at all levels of government, academia, and industry, and for the application of such capabilities to national needs;

(7) in accordance with Presidential directives, facilitate international cooperation in science and technology which will advance the national and international objectives of the United States;

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

(9) submit to the President and the Congress timely public reports on developments, trends, and problems in science and technology deserving of national attention;

(10) periodically review the nature and needs of national science policy and make recommendations to the President and to the Congress for its timely and

appropriate revision, in accordance with section 102 (a) (6) of title I of this Act; and

(11) maintain liaison with the Federal Council for Science and Technology, the National Science Board, and with all councils and offices of the Executive Office of the President, and develop appropriate working relationships with the National Security Council and the Domestic Council.

PERSONNEL

SEC. 205. The Director is authorized, without regard to the provisions of title 5 of the United States Code governing appointments in the competitive service and chapter 51 and subchapter III of chapter 53 of said title, to appoint and fix the compensation, but not in excess of the rate prescribed for grade GS–18 of the General Schedule in section 5332 of said title, for such officers and employees as he may deem necessary to perform the functions now or hereafter vested in him, and to prescribe their duties.

CONSULTANT AND OTHER SERVICES

SEC. 206. The Director may (1) 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 (2) 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).

OTHER FEDERAL AGENCIES

SEC. 207. The Director may utilize with their consent the services, personnel, equipment, and facilities of other Federal agencies with or without reimbursement, and may transfer funds made available pursuant to this Act to other Federal agencies as reimbursement for the utilization of such services, personnel, equipment, and facilities.

REORGANIZATIONS

SEC. 208. (a) The President shall from time to time examine the organization of the Office and shall determine what changes, if any, are necessary to reduce expenditures and promote economy and efficiency, and to increase the Office's and the Director's capacity to render their analyses, examinations, advice, and counsel, by reduction or increase in the number of members of such Office or by reduction, expansion, or alteration of the duties and functions of the Office or of its Director. When the President, after investigation, finds that any of such changes would promote

the policies and purposes of this Act, he may prepare a reorganization plan for effecting the change or changes involved, and submit such plan to the Congress, together with his findings and a statement of reasons for the proposed change or changes, and shall have any such reorganization plan delivered to both Houses on the same day and to each House while it is in session.

(b) A provision contained in a reorganization plan shall take effect at the end of the first period of sixty calendar days of continuous session of Congress after such plan is transmitted to it (such days of continuous session to be computed in accordance with section 906(b) of title 5, United States Code) unless, between the date of transmittal and the end of the sixty-day period, each House has passed a resolution stating in substance that that House does not favor the reorganization plan. However, no such plan shall take effect unless it is submitted to Congress before January 3, 1980.

(c) The provisions of sections 908 through 913 of title 5, United States Code, shall apply with respect to any reorganization plan transmitted to the Congress pursuant to subsection (a) of this section.

(d) A reorganization plan which is effective shall be printed (1) in the Statutes at Large in the same volume as the public laws, and (2) in the Federal Register.

TITLE III—THE FEDERAL SCIENCE AND TECHNOLOGY SURVEY COMMITTEE

ORGANIZATION

SEC. 301. (a) (1) There is hereby established within the Executive Office of the President, and in association with the Office of Science and Technology Policy, a Federal Science and Technology Survey Committee (hereinafter in this title referred to as the "Committee"). The Committee shall consist of not less than five nor more than twelve members appointed by the President not more than 90 days after the confirmation (as provided in section 203 of this Act) of the Director of the Office of Science and Technology Policy. The President shall designate one of such members to serve as Chairman.

(2) Each of the members of the Committee appointed by the President pursuant to paragraph (1) shall be exceptionally qualified and distinguished in science, engineering, or closely related fields, or in public administration or affairs, and shall be capable of rendering accurate and comprehensive analysis and critical examination of the programs and activities of the Government in the light of the findings and policies set forth in title I of this Act.

(3) Members of the Committee shall, while attending meetings of the Committee or while engaged in duties related

to such meetings or in other activities of the Committee pursuant to this Act, be entitled to receive the daily equivalent of the annual rate of basic pay in effect for GS–18 of the General Schedule for each day, including traveltime, during which they are so attending or engaged, and shall, while away from their homes or regular places of business, be allowed travel expenses, including per diem in lieu of subsistence, equal to that authorized by law (5 U.S.C. 5703) for persons in the Government service employed intermittently.

(b) The Committee shall, with the approval of the President, appoint an Executive Director who shall serve as chief executive officer, and who shall be paid at the rate provided for level IV of the Executive Schedule in section 5315 of title 5, United States Code.

(c) In the performance of its duties and functions under section 302, the Committee is authorized, through the Executive Director or otherwise—

(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 (d) of this section for carrying out the functions of the Committee.

(d) Upon request of the Committee, the head of any Federal department, agency, or instrumentality (including the head of the Department of the Army, Navy, or Air Force) is authorized (1) to furnish to 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 pursuant to a cooperative agreement of the Chairman with 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.

DUTIES AND FUNCTIONS

SEC. 302. (a) The Committee shall survey, examine, and analyze the total context of the Federal science and technology effort including missions, goals, personnel, funding, organization, facilities, and activities in general. In pursuit of this duty the Committee shall give particular attention to needs for—

(1) organizational reform;

(2) improvements in existing systems for handling scientific and technological information on a government-wide basis;

(3) technology assessment in the executive branch;

(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;

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

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

(10) improved systems for planning and analysis of the overall Federal science and technology budget.

(b) (1) Upon completion of its assignment, the Committee shall submit a report of its activities, findings, conclusions, and recommendations, together with such supporting data and material as may be necessary, to the Director of the Office of Science and Technology Policy.

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

TERMINATION; FINAL REPORT

SEC. 303. The life of the Committee shall be fifteen months from the date of its first organizational meeting. The Committee's final report setting forth its findings and recommendations shall be issued within this period.

TITLE IV—MISCELLANEOUS

AUTHORIZATION

SEC. 401. There are authorized to be appropriated such sums as may be necessary to carry out the purposes of this Act.

REPORT

SEC. 402. 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.

AMENDMENT

SEC. 403. 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) as subsections (g), (h), and (i), respectively.

94TH CONGRESS
1ST SESSION

H. R. 9058

A BILL

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.

By Mr. TEAGUE and Mr. MOSHER

JULY 30, 1975
Referred to the Committee on Science and Technology

THE WHITE HOUSE

WASHINGTON

September 22, 1975

MEMORANDUM FOR: PHIL BUCHEN
MAX FRIEDERSDORF
ROBERT T. HARTMANN
JIM LYNN
JACK MARSH
DON RUMSFELD
BILL SEIDMAN
BOB GOLDWIN
BRENT SCOWCROFT

FROM: JIM CANNON

SUBJECT: LEGISLATION CREATING THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY (OSTP)

The Teague-Mosher substitute for the President's bill to create an Office of Science and Technology Policy is moving ahead in the Congress, probably headed toward passage this year.

- Tab A is a brief Domestic Council staff report on the status of the legislation.

- Tab B is the latest version of the Teague-Mosher bill (HR 9058, revised).

Would you please let us know by C.O.B. Wednesday, September 24th whether you see any serious problems with the bill that you believe warrant an attempt to obtain changes. If we are to seek changes, we should do so as soon as possible.

TAB A

STATUS AND EVALUATION OF THE LEGISLATION TO CREATE AN OFFICE OF SCIENCE AND TECHNOLOGY POLICY IN THE EXECUTIVE OFFICE OF THE PRESIDENT

Summary

A revised version of a bill (HR 9058) introduced in the House by Congressmen Teague and Mosher on July 30, 1975, will be marked up by the House Science and Technology Committee on October 8, 1975. The bill is likely to be reported to and passed by the full House shortly thereafter. The Senate will then take up the House bill and is expected to act quite quickly on it. The bill may be on the President's desk before Christmas.

The Teague-Mosher Bill(HR. 9058)

- Teague and Mosher introduced the President's bill(which was sent up on June 26) to create an Office of Science and Technology Policy(OSTP), but shortly thereafter--July 30--introduced a new bill(HR 9058) which the Committee will consider instead of the President's bill.

- After a series of staff level discussions, the House Committee staff has revised the bill, obtained the approval of Teague and Mosher, and is now reviewing it with other members of the Committee, with the objective of having most if not all problems ironed out before Oct. 8.

- The latest available version of HR 9058 is attached.

- H.R. 9058 has three principal titles:

  .. Title I - declares a national policy on science and technology.

  .. Title II - creates an Office of Science and Technology Policy as proposed by the President, with three exceptions:

    . The Director would be subject to Senate confirmation.
    . The President would have the discretion of appointing up to four assistant directors, to be compensated at rates not to exceed Level III. (This provision is designed to allow this President and his successors to structure the Office as they prefer; e.g., a Director and Deputy; a 3 or 5-man Council; etc. This should head off the fight that was expected over whether an office or council should be created.)
    . The functions of the Office are spelled out in more detail.

.. Title III - establishes in the Executive Office of the President--either as a part of the OSTP or in such other manner as the President may direct -- a Federal Science and Technology Survey Committee, with staff.

. The Committee is to consist of from 5 to 12 members, appointed by the President with 90 days after confirmation of the OSTP Director.
. The OSTP Director shall be chairman of the Committee.
. Members may be from within or outside the Government.
. The Committee is to survey and examine the overall context of Federal science and technology effort, including missions, goals, funding, organization, etc., and submit a report of its findings and conclusions within 24 months.
. The President shall transmit the report to the Congress with comments and recommendations within 60 days thereafter

Evaluation

. Overall: The bill submitted by the President would be preferable, but the latest version (attached) is a good compromise between the President's bill and other bills that have been considered in the House.

. Title I - The science and technology policy statement is a modified version of one introduced earlier by Teague and Mosher(HR 4461). The whole idea of legislating an S & T policy is questionable, but the statement is rather harmless. The Committee will insist on having a policy statement.

. Title II - The Congress will insist on confirmation for the Director. The discretionary authority for up to four assistant directors is a clever compromise. As now written, the statement of OSTP functions should be acceptable but there are pressures to make them more specific--particularly with respect to the OSTP role in advising on scientific and technical aspects of the Budget.

. Title III - The bill would be better without the requirement for a Survey Committee but the House Committee is unlikely to go for its deletion. The Committee idea is being used by Teague and Mosher to head off a wide variety of proposals from other members of the Committee -- proposals which range from making the OSTP functions broader to the creation of a Department of Science and Technology and the creation of a statutary interagency S&T committee.

TAB B

[COMMITTEE PRINT]

H.R. 9058 with suggested revisions September 16, 1975

Showing matter to be deleted in linetype and matter to be inserted in italic

94TH CONGRESS
1ST SESSION

H. R. 9058

IN THE HOUSE OF REPRESENTATIVES

JULY 30, 1975

Mr. TEAGUE (for himself and Mr. MOSHER) introduced the following bill; which was referred to the Committee on Science and Technology

[Omit the part struck through and insert the part printed in italic]

A BILL

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 and Organization Act of 1975".

TITLE I—NATIONAL SCIENCE *AND TECHNOLOGY* POLICY

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—

(1) that the general welfare, the security, the economic growth 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*; and

(2) that the many large and complex scientific factors which increasingly influence the course of national and international events require appropriate provision to incorporate scientific and technological knowledge in the national decisionmaking process.

(b) As a consequence, the Congress finds and declares that ~~the Nation's goals for~~ science and technology should ~~include~~ *contribute* without being limited to the following *National goals:*

(1) fostering ~~world~~ 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 ~~maximizing the dissemination of~~ *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 adequacy of food and energy for the Nation's needs;

(4) contributing to the national security;

(5) improving the Nation's health and medical care; and

(6) preserving, fostering, and restoring a healthful and esthetic natural environment, and developing improved housing and urban *and rural* systems.

DECLARATION OF POLICY

Principles

SEC. 102. (a) 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 implemen-

tation of ~~a national strategy~~ *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 for* science and technology *in achieving* goals and *formulating* policies of the United States, and reflecting the views of States, municipalities, 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 ~~concurrently~~ promoting foreign policy objectives, and, through the allocation of research and development resources, to maintain ~~a proper ratio~~ *balance* in the ~~development and~~ export of technology ~~between aid to lagging foreign economies~~ and ~~attainment of an equitable balance~~ in world trade *markets*;

(4) the recruitment, education, training, ~~and~~ retraining, *and beneficial use* of adequate numbers of scientists, engineers, and ~~technologists, and insuring their full utilization;~~ *technologists;*

(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 technical and industrial standards and test methods, and (E) promotion of increased public understanding of science and technology; and

(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.

Implementation

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

~~(1) There should be a central policy planning element in the executive branch to guide executive agencies~~

~~in mobilizing resources for essential science and technology programs, to present to the Congress the justification of such programs, to aid in securing appropriate funding for those programs, and to review systematically Federal science policy and programs and to recommend legislative amendment thereof when needed. A major component of this structure should be 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.~~

(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 ~~insure~~ *promote* prompt, effective, reliable, and systematic transfer of science and technology information by such appropriate methods as: the funding of technical evaluation centers, cost sharing of information dissemination programs conducted by such nongovernmental organizations as industrial groups and technical societies, ~~and~~ *or* assistance in the publication of ~~properly certified science~~ *scientific* and ~~technology~~ *technological* information. 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 science and technology efforts which are ~~intended~~ *expected* to provide results beneficial to the public but which the private sector may be unwilling or unable to support.

(4) Science and technology 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. ~~Cooperative~~ *Among these entities, cooperative* relationships should be established ~~that~~ *which* encourage the sharing of science and technology decisionmaking, funding support, and program planning and execution ~~among all interested elements of society~~.

~~(5) Ways and means should be developed by which the Federal Government can determine and establish the level of national effort in science and technology which should be sustained, taking into account competing public needs and available resources.~~

(5) Ways and means should be developed by which the Federal Government can assess and help assure that an adequate national effort is maintained in science and technology, taking into account competing public needs, available resources, and the contributions which science and technology can make to national goals and objectives.

~~(6) Granting the need for a variety of approaches within and among Federal, State, local, and nongovernmental activities in science and technology, it is essential that means be proportioned to ends in the conduct of science and technology programs supported or conducted by the Federal Government. Such pro-~~

~~grams should be centrally reviewed to assure rational allocation of funds and resources, to identify public problems and objectives, to anticipate future concerns to which science and technology can contribute, and to devise strategies for the conduct of science and technology for these purposes.~~

~~(7)~~ *(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.

Procedures

(c) 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-effectiveness principles where ~~feasible~~ *practicable,* should be developed to identify the kinds of ~~science~~ *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 ~~last resort~~ *appropirate source* for undertaking their support. ~~However, such projects should conform with established criteria.~~

(3) Federal promotion of science and technology should ~~maximize~~ *emphasize* quality of research, *recognize the paramount importance of* stability ~~of~~ *in* scientific and technological institutions, and, for urgent tasks, *must 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) ~~A uniform patent policy should be promulgated for all Federal agencies, having as its primary~~

~~objective~~ *Federal patent policies should be developed which have as their objective the creation of incentives for technological innovation and* the application of procedures to assure the full use of beneficial technology to serve the public.

(5) Antitrust regulation to compel competitive economic pluralism should not *arbitrarily* preclude cooperation among competing firms in industrial research and development beneficial to an entire industry and to the public.

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

(7) 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 hardware. Disposal policies should include attention to possibilities for further productive use.

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

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

(10) The Federal Government should support applied scientific research 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.

(11) 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.

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FUNCTIONS

SEC. 204. (a) The Director shall be the President's chief policy adviser and assistant with respect to scientific and technological matters.

(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 techno-

logical considerations with regard to Federal budgets, ~~provide~~ *assist* the Office of Management and Budget with an annual review and analysis of ~~the~~ *funding* proposed *for* research and development *in* budgets of all Federal agencies, and ~~participate~~ *aid the Office of Management and Budget and the agencies* throughout the budget development process;

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

(5) provide the President ~~and the Congress~~ with ~~annual~~ *periodic* reviews of Federal statutes and administrative regulations governing the research and development activities of the various departments and agencies, *including those affecting government-industry activities,* together with ~~any~~ recommendations for their elimination, reform, or updating *as appropriate*;

(6) ~~develop, review, and revise criteria for determining optimum Federal support for science and technology, and recommended policies, programs, and plans for~~ *develop, review, revise, and recommend criteria for determining the type of scientific and technological activities warranting Federal support, and recommend Federal policies directed toward the* development and maintenance of a broadly based scientific and technological

capability at all levels of government, academia, and industry, and for the application of such capabilities to national needs;

(7) ~~in accordance with Presidential directives, facilitate~~ *assess and advise on policies for* international cooperation in science and technology which will advance the national and international objectives of the United States;

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

(9) submit to the President and the Congress timely public reports on developments, trends, and problems in science and technology deserving of national attention;

(10) periodically review the nature and needs of national science policy and make recommendations to the President and to the Congress for its timely and appropriate revision, in accordance with section 102 (a) (6) of title I of this Act; and

(11) maintain liaison with the ~~Federal Council for Science and Technology, the~~ National Science Board, and with all councils and offices of the Executive Office of the President, and develop appropriate working relationships with the National Security Council and the Domestic Council.

PERSONNEL

SEC. 205. The Director is authorized, without regard to the provisions of title 5 of the United States Code governing appointments in the competitive service and chapter 51 and subchapter III of chapter 53 of said title, to appoint and fix the compensation, but not in excess of the rate prescribed for grade GS–18 of the General Schedule in section 5332 of said title, for such officers and employees as he may deem necessary to perform the functions now or hereafter vested in him, and to prescribe their duties.

CONSULTANT AND OTHER SERVICES

SEC. 206. The Director may (1) 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 (2) 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).

OTHER FEDERAL AGENCIES

SEC. 207. The Director may utilize with their consent the services, personnel, equipment, and facilities of other

Federal agencies with or without reimbursement, and may transfer funds made available pursuant to this Act to other Federal agencies as reimbursement for the utilization of such services, personnel, equipment, and facilities.

REORGANIZATIONS

SEC. 208. (a) The President shall from time to time examine the organization of the Office and shall determine what charges, if any, are necessary ~~to reduce expenditures and promote economy and efficiency, and~~ to increase the Office's and the Director's capacity to render their analyses, examinations, advice, and counsel, by reduction or increase in the number of members of such Office or by reduction, expansion, or alteration of the duties and functions of the Office or of its Director. When the President, after investigation, finds that any of such changes would promote the policies and purposes of this Act, he may prepare a reorganization plan for effecting the change or changes involved, and submit such plan to the Congress, together with his findings and a statement of reasons for the proposed change or changes, and shall have any such reorganization plan delivered to both Houses on the same day and to each House while it is in session.

(b) A provision contained in a reorganization plan shall take effect at the end of the first period of sixty calendar days of continuous session of Congress after such plan is trans-

mitted to it (such days of continuous session to be computed in accordance with section 906(b) of title 5, United States Code) unless, between the date of transmittal and the end of the sixty-day period, each House has passed a resolution stating in substance that that House does not favor the reorganization plan. However, no such plan shall take effect unless it is submitted to Congress before January 3, 1980.

(c) The provisions of sections 908 through 913 of title 5, United States Code, shall apply with respect to any reorganization plan transmitted to the Congress pursuant to subsection (a) of this section.

(d) A reorganization plan which is effective shall be printed (1) in the Statutes at Large in the same volume as the public laws, and (2) in the Federal Register.

TITLE III—THE FEDERAL SCIENCE AND TECHNOLOGY SURVEY COMMITTEE

ORGANIZATION

SEC. 301. (a) (1) There is hereby established within the Executive Office of the President, ~~and in association with~~ *as part of* the Office of Science and Technology Policy, *or in such other manner as the President may direct,* a Federal Science and Technology Survey Committee (hereinafter in this title referred to as the "Committee"). The Committee shall consist of not less than five nor more than twelve

members appointed by the President not more than 90 days after the confirmation (as provided in section 203 of this Act) of the Director of the Office of Science and Technology Policy. ~~The President shall designate one of such members to~~ *The Director of such Office shall* serve as Chairman.

(2) ~~Each of the members~~ *Members* of the Committee appointed by the President pursuant to paragraph (1) shall *(A)* be exceptionally qualified and distinguished in science, engineering, or closely related fields, or in public administration or affairs, and shall be capable of rendering accurate and comprehensive analysis and critical examination of the programs and activities of the Government in the light of the findings and policies set forth in title I of this Act, *and (B) include representatives of the public, of the industrial sector, and of the academic community.*

(3) Members of the Committee *who are not officers of the Federal Government* shall, while attending meetings of the Committee or while engaged in duties related to such meetings or in other activities of the Committee pursuant to this Act, be entitled to receive the daily equivalent of the annual rate of basic pay in effect for GS–18 of the General Schedule for each day, including traveltime, during which they are so attending or engaged, and shall, while away from their homes or regular places of business, be allowed

travel expenses, including per diem in lieu of subsistence, equal to that authorized by law (5 U.S.C. 5703) for persons in the Government service employed intermittently.

~~(b) The Committee shall, with the approval of the President, appoint an Executive Director who shall serve as chief executive officer, and who shall be paid at the rate provided for level IV of the Executive Schedule in section 5315 of title 5, United States Code.~~

~~(c)~~ *(b)* In the performance of its duties and functions under section 302, the Committee is ~~authorized, through the Executive Director or otherwise~~— *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 ~~(d)~~ *(c)* of this section for carrying out the functions of the Committee.

~~(d)~~ *(c)* Upon request of the Committee, the head of any Federal department, agency, or instrumentality (including the head of the Department of the Army, Navy, or

Air Force) is authorized (1) to furnish to 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 pursuant to a cooperative agreement of the Chairman with 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.

DUTIES AND FUNCTIONS

SEC. 302. (a) The Committee shall survey, examine, and analyze the ~~total~~ *overall* context of the Federal science and technology effort including missions, goals, personnel, funding, organization, facilities, and activities in general. In pursuit of this duty the Committee shall ~~give particular attention to~~ *, among other things, consider* needs for—

(1) organizational reform;

(2) improvements in existing systems for handling scientific and technological information on a government-wide basis;

(3) technology assessment in the executive branch;

(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;

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

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

(10) improved systems for planning and analysis of the overall Federal science and technology budget.

(b) (1) Upon completion of its assignment, the Committee shall submit a report of its activities, findings, *and* conclusions, ~~and recommendations, together with~~ *including*

such supporting data and material as may be necessary, to the ~~Director of the Office of Science and Technology Policy.~~ *President.*

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

TERMINATION; FINAL REPORT

SEC. 303. The life of the Committee shall be ~~fifteen~~ *24* months from the date of its first organizational meeting. The Committee's final report setting forth its findings and recommendations shall be issued within this period.

TITLE IV—MISCELLANEOUS

AUTHORIZATION

SEC. 401. There are authorized to be appropriated such sums as may be necessary to carry out the purposes of this Act.

REPORT

SEC. 402. 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.

AMENDMENT

SEC. 403. 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) as subsections (g), (h), and (i), respectively.

[COMMITTEE PRINT]

H.R. 9058 with suggested revisions
September 16, 1975

94TH CONGRESS
1ST SESSION

H. R. 9058

A BILL

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.

By Mr. TEAGUE and Mr. MOSHER

JULY 30, 1975

Referred to the Committee on Science and Technology

Subj.

THE WHITE HOUSE

WASHINGTON

November 3, 1975

MEMORANDUM FOR: DOUG BENNETT
PHIL BUCHEN
MAX FRIEDERSDORF
ALAN GREENSPAN
ROBERT T. HARTMANN
JIM LYNN
JACK MARSH
RON NESSEN
BILL SEIDMAN
BRENT SCOWCROFT
PAUL THEIS

FROM: JIM CANNON

SUBJECT: ESTABLISHMENT OF TWO SCIENCE AND TECHNOLOGY ADVISORY GROUPS

As indicated in the attached draft memorandum, the President has approved the Vice President's proposal to establish two new advisory groups to begin identifying issues in two areas in which the new Office of Science and Technology Policy should play a major role.

Arrangements for funding and staff support for the two groups have been worked out with Dr. Stever. Members of the groups will be appointed as consultants to Dr. Stever. In order to provide a measure of status, prestige and presidential interest, we are planning (a) Presidential letters to the Chairman and each member of the group, and (b) Announcement of groups through a White House Fact Sheet.

Necessary arrangements for compliance with the Advisory Committee Act have been worked out among staffs of the NSF, OMB, Domestic Council and Vice President's Office.

May we have by COB November 4 your comments and concurrence on the enclosed draft (a) memo to the President, (b) fact sheet, and (c) Presidential letter to the Chairman of each group and (d) Presidential letter to members of the two groups.

Thanks for your help.

THE WHITE HOUSE

WASHINGTON

November 3, 1975

DRAFT
SIGNATURE

MEMORANDUM FOR: THE PRESIDENT

FROM: JIM CANNON

SUBJECT: LETTERS TO MEMBERS OF THE TWO NEW SCIENCE AND TECHNOLOGY GROUPS

On September 16, 1975, you approved the Vice President's proposal to establish two new advisory groups to identify issues in which the proposed new Office of Science and Technology Policy should play a major role: (a) contributions of Technology to Economic strength, and (b) Anticipated Advances in Science and Technology.

Drs. Simon Ramo and William O. Baker have agreed to serve as Chairmen of the groups as you requested. Other members are listed at Tab A.

Arrangements have been worked out with Dr. H. Guyford Stever, in his role as Science Adviser and Director of the National Science Foundation, to provide funding and staff support. The formal appointments will be made by Dr. Stever.

To provide a measure of prestige for the groups, we are proposing that you send the two Chairmen and each member of their group a letter expressing appreciation for their willingness to serve.

Creation of the groups will be announced through release of a fact sheet (Tab B) if you approve the letters.

In addition to the Vice President, this matter has been reviewed by Messrs. Buchen, Greenspan, Friedersdorf, Hartmann, Lynn, Marsh, Seidman, and Scowcroft.

RECOMMENDATION

That you sign the letters to the members of the two groups. The letters have been approved by Paul Theis.

DRAFT
11/3/75

THE WHITE HOUSE

FACT SHEET

ESTABLISHMENT OF ADVISORY GROUPS ON CONTRIBUTIONS OF TECHNOLOGY TO ECONOMIC STRENGTH AND ANTICIPATED ADVANCES IN SCIENCE AND TECHNOLOGY

The establishment of two new advisory groups concerned with science and technology is being announced today. One group will be concerned with contributions of technology to economic strength; the other with anticipated advances in science and technology.

Background

- On June 9, 1975, the President sent legislation to the Congress proposing the establishment of an Office of Science and Technology (OSTP) in the Executive Office of the President.

- The House of Representatives is expected to complete action on November 6 on the legislation (H.R. 10230) to create the OSTP. Three Senate Committees are now working on similar legislation and, hopefully, will complete action soon.

- To facilitate planning for the activities of the OSTP, the President directed the Vice President, working with Science Adviser, H. Guyford Stever, to bring together two groups of experts on two major areas that will be important to the new Office in providing advice on scientific and technical aspects of issues and policies that must be addressed at the highest level of the Government.

The Two New Advisory Groups

Both groups will be made up of experts from the academic community, industry, government and other organizations who can provide advice on the wise use of science and technology in achieving important national objectives.

. Contribution of Technology to Economic Strength. This group will examine issues and opportunities involving the improved utilization of technology in fostering economic strength and in assuring that economic goals are achieved along with environmental goals. Examples of issues that are expected to be discussed are:

- productivity improvements through new, developing technological systems.
- environmental and safety aspects of technological developments.
- the role of government in fostering U.S. technological development.
- the international economic impact of technological transfer among nations.

This advisory group will be chaired by Dr. Simon Ramo, Vice Chairman of the Board, TRW, Inc.

Other members include: (List alphabetically)

. Anticipated Advances in Science and Technology. This group will consider developments that may take place in science and engineering in the decade ahead and examine the national policy implications of these developments. Examples include:

- new communication technology.
- disaster prediction and control technology.
- waste supply technology.
- technological aids for improved or more economical health care.

This advisory group will be chaired by Dr. William O. Baker, President, Bell Laboratories.

Other members include: (List alphabetically)

In accordance with the Advisory Committee Act (P.L. 92-463), charters for the two groups have been filed with the Office of Management and Budget and Library of Congress, and notices of meetings will be published in the Federal Register.

THE WHITE HOUSE
WASHINGTON

DRAFT
11/3/75

DRAFT LETTER FROM THE PRESIDENT TO DRS. RAMO AND BAKER

Dear Dr. Ramo: (Dr. Baker)

I was especially delighted to learn from the Vice President that you have agreed to serve as Chairman of the Advisory Group on Technology and Economic Growth* that is now being established. This group, together with the Advisory Groups on Anticipated Advances in Science and Technology*, will, I believe, be able to identify critical policy issues in which the proposed new Office of Science and Technology Policy should play a major role. The work you do will permit the new office to proceed quickly and effectively in carrying out its responsibility for providing advice on the scientific and technical aspects of issues and problems that require attention at the highest levels of Government.

We are very fortunate in having someone of your knowledge and experience willing to lead an advisory group and I greatly appreciate your willingness to serve. I am confident that your group will come forward with important recommendations and I look forward to meeting with your group in the near future.

Sincerely,

*Names of the two groups will be reversed in letters to Dr. Baker as Chairman of the Group on Anticipated Advances...

THE WHITE HOUSE

WASHINGTON

DRAFT
11/3/75

DRAFT LETTER FROM THE PRESIDENT TO MEMBERS OF THE TWO GROUPS

Dear _____:

I was delighted to learn from the Vice President that you are willing to serve on the Advisory Group on Contributions of Technology to Economic Strength that is now being established. This group, together with the Advisory Group on Anticipated Advances in Science and Technology*, will, I believe, be able to identify critical policy issues in which the proposed new Office of Science and Technology Policy should play a major role.

The work you do will permit the new Office to proceed quickly and effectively in carrying out its responsibility for providing advice on the scientific and technical aspects of issues and problems that require attention at the highest levels of Government.

I greatly appreciate your willingness to serve. I am confident that the group will come forward with important recommendations and I look forward to meeting with you in the near future.

Sincerely,

* Names of the two groups will be reversed in letters to members of the Group on Anticipated Advances . . .

December 9, 1975

BRIEF SUMMARY OF COMMENTS ON THE MOTTUR BILL (S.32, December 5, 1975)

Briefly, the undesirable and unacceptable features of the Mottur Bill are as follows:

- It puts the Director of OSTP in the position of determining funding levels and priorities for S&T programs and recommending these to the President and the Congress. If the President doesn't accept recommendations he must explain why.

- The Director of OSTP would be an evaluator and coordinator of Federal agencies S&T activities -- much more so than an adviser to the President.

- Science and Technology are treated as ends in themselves rather than means which, along with others, are to achieve agency and national goals and objectives.

- Creates by law a new President's advisory committee on technology and science with 8 to 14 members, subject to Senate confirmation.

- Creates by law an interagency S&T coordinating committee replacing the existing executive order committee.

- Creates a new program in NSF for continuing education for scientists and engineers -- a concept first advanced in 1971 when the cutback in space and defense research then resulted in substantial unemployment of engineers.

- Creates a new categorical grant program providing up to $200,000 to each state to appoint science advisers.

- Creates a new 20-member intergovernmental committee on science and technology.

- Requires an extremely broad annual report on science and technology from the President.

- Makes the OSTP Director a member of the NSC and Domestic Council.

- Various other problems with wording and structure.

TAB A - Summary of the Principal Features of the Bill.
TAB B - Summary, but with more details, of Principal Problems With the Bill.

TAB A

December 9, 1975

PRINCIPAL FEATURES OF THE MOTTUR BILL (S.32 - December 5, 1975)

Title I - National Science and Technology Policy

. contains sections on findings; declaration of policies and priorities; declaration of purpose of the bill (which is to promote application of science and technology by creating the series of permanent statutory organizations described in subsequent titles.

Title II - Office of Science and Technology Policy

. Headed by Director (Level II) and up to four Associate Directors (Level III).

. Office:
- appraises progress in science and technology, takes into account state of the economy (based on consultations with CEA), determines the desired level of Federal investment among S&T programs for the ensuing fiscal year and makes projections for 5 years. Makes recommendations on funding to the President and the Congress.
- annually assesses alternative uses of Federal funds for science and technology and determines priorities for allocating federal funds among major expenditure areas.
- serves as source of scientific and technological analysis and judgment for the President; includes defining approach for applying S&T and coordinating responsibilities and programs of agencies.

. Director:
- serves as chairman of a statutorily established interagency coordinating group, and member of Domestic Council, NSC, a new President's advisory committee, and a new intergovernmental advisory panel.
- appoints staff.
- coordinates with others in the Executive Office of the President.
- holds hearings in various parts of the country on science and technology.

. The President submits a broad annual report covering (a) recent developments in all major fields of science and technology, (b) effects of trends in S&T, (c) review and appraisal of selected S&T-related programs, policies and activities of the Federal Government, (d) inventory and projection of critical and emerging national problems

that can be assisted by S&T; (e) identification and assessment of S&T measures that can contribute to resolution of problems; (f) existing and projected S&T resources, including manpower; (g) recommended legislation, and (h) recommended Federal funding level and priorities.

If the President recommends funding levels different from those of a OSTP Director, the President must include the Director's recommendations in the annual report and explain why he didn't accept them.

Title III - President's Advisory Committee on Technology and Science (PACTS).

- Creates a committee in the Executive Office of the President consisting of the Director of OSTP and 8 to 14 additional members appointed by the President and confirmed by the Senate. Committee submits a report after 1 year and the President must then make a determination whether he deems it advantageous to continue the committee.
- Functions include:
  - Assessment of important national and international issues at the direction of the President or at its own initiative.
  - As first assignment, conduct broad survey of the overall context of Federal S&T effort, considering the need for change in organization, etc.

Title IV - Federal Coordinating Group for Science and Technology

- Consists of OSTP Director and one representative from each of 14 named agencies which have major S&T efforts.
- Abolishes the existing Federal Council for Science and Technology (FCST) which was established by Executive Order.

Title V - National Science Foundation

- Makes selected changes in responsibilities of NSF and responsibilities of and criteria for membership on the National Science Board.
- Creates in NSF a new grant program for "Continuing Education in Science and Engineering".

Title VI - State and Regional Science and Technology Programs

- Establishes in the NSF a new Intergovernmental Science and Technology Advisory Panel, consisting of 20 members (2 from each standard region) appointed by the President and confirmed by the Senate (plus the Directors of OSTP and NSF). Three year terms with 1/3 expiring each year.
- Creates a new categorical grant program to pay up to $200,000 in any one year to pay part of the costs of establishing in each state an Office of State Science and Technology.

Title VII - General Provisions

- Contains definitions, authorization for appropriations.

TAB B

December 9, 1975

PRINCIPAL PROBLEMS WITH THE MOTTUR BILL (S.32, December 5, 1975)

Delay

. Bill can lead to substantial delays in getting agreement within the Senate, with the House and eventually with the Administration on an acceptable bill.

Fundamental Problems with the Bill

1. It runs counter to two principles with respect to White House advice on science and technology that have emerged clearly over the past two years:

   - the arrangement for scientific and technical advice in the White House must be one with which the President is comfortable.
   - the function of advocate for funding for science and technology should be left to heads of operating agencies.

2. The OSTP created by the Mottur bill would be in an adversary relationship with the President, the operating agencies, and other elements of the White House and Executive Office of the President. Specifically:

   . It places the OSTP above the President by requiring that:

   - OSTP determine level of funding desirable for science and technology and priorities among scientific and technical program and make recommendations to the President and the Congress (Secs. 204-205).
   - The President accept these recommendations or explain to the Congress why he hasn't (Sec. 209(c)).

   . It requires the OSTP Director to appraise and coordinate operating agencies scientific and technical programs -- even though such programs are a part of the missions and resources for achieving agencies' overall missions.

   . It apparently seeks to remove the function of advising on funding for science and technology from the Office of Management and Budget, thus;

   - placing heads of agencies in the position of justifying one part of their budget to OSTP and the remainder to the President through OMB.
   - placing the President in the position of looking to two principal sources of advice in the Executive Office for budget recommendations.

3. Instead of recognizing that scientific and technical programs are carried on by Federal agencies as part of overall efforts to accomplish a wide variety of missions and national objectives, the bill seeks to treat science and technology as ends in themselves. Specifically:

   - It calls for centralized Executive Order appraisal and coordination of the scientific and technical aspects of agencies' programs.
   - It provides separate arrangements and channels for justifying and determining funding levels and priorities.
   - It requires 5-year projections of desirable funding levels and priorities for science and technology.

4. The bill requires a broad, annual report on virtually all aspects of science and technology -- rather than periodic reports on timely subjects -- when preparation of such a report:

   - Would take up a large share of the OSTP staff time that should be devoted to advice on scientific and technical aspects of issues and problems requiring the President's attention.
   - Presents a virtually impossible task because science and technology are means to achieve objectives in such areas as transportation, health, defense, etc. and cannot be separated out meaningfully from discussions of other aspects of total efforts to achieve those objectives.

5. The bill authorizes a statutory President's Advisory Committee on Science and Technology (PACTS) -- rather than more flexible ad hoc advisory groups to deal with particular problems -- as contemplated in the President's bill -- or the two-year Survey Committee provided in the House bill.

6. The bill would, unnecessarily, create by statute an interagency coordinating group for science and technology which is indistinguishable from the existing Federal Council for Science and Technology (FCST), created by an Executive Order. There is no clear reason to take from the President the flexibility to change the organization, purpose, and membership of such a committee.

7. The bill calls for a new NSF program of continuing education in science and technology -- a concept advanced several years ago when there was significant unemployment of engineers. This approach has not been satisfactorily justified as to its need or effectiveness or evaluated as to its benefits and costs.

8. The bill would create an unnecessary and duplicative new categorical grant program to provide science advisers in every state and a statutory intergovernmental committee on science and technology.

   . NSF already has a major program for assisting state and local governments in making use of science and technology.
   . Arrangements for science advisers to Governors have been tried under that program and have not proven out well. NSF is experimenting with other approaches.

9. The addition of the Adviser on science and technology to the NSC by statute is unnecessary and would set an undesirable precedent. Without changing current statutory membership, the President's adviser on science and technology would be included in the deliberations and activities of the NSC and Domestic Council when issues and problems being addressed involve important S&T considerations. This is also true of other deliberations and activities and other advisers.

10. There are a number of other problems with the wording and structure that require correction.