The original documents are located in Box 32, folder "Science and Technology Policy, Office of (1)" of the James M. Cannon Files at the Gerald R. Ford Presidential Library.

THE WHITE HOUSE

WASHINGTON

February 12, 1975

MEMORANDUM FOR THE PRESIDENT

FROM: JIM CAVANAUGH

SUBJECT: Science and Technology in the Executive Office of the President

This memorandum (a) identifies arguments for and against the science advisory arrangements recommended by the Vice President's staff, (b) discusses and assesses other alternatives, and (c) recommends an alternative plan for assuring that adequate scientific and technical advice is available for you and your advisers.

Background

The Vice President's staff recommendations (Tab A) call for the creation by law of an Office of Technology and Science (OTS) in the Executive Office of the President, with the head of the office also designated as the President's science and technology adviser. In addition to the Director, there would be a deputy, five assistant directors, up to 12 professional staff, and additional supporting staff. The Director and office would be assisted by ad hoc panels of experts from outside the government.

The recommended arrangements are quite comparable to the science advisory apparatus which was abolished in July 1973 -- which included the Office of Science and Technology, with the Director designated as Science Adviser, and the President's Science Advisory Committee which included experts from outside the government. In 1973 the civilian functions were transferred to the National Science Foundation and its Director has served as Science Adviser.

Except for the single Director rather than a three member Council as the leadership, the Vice President's staff recommendations are like those recommended in June 1974 by a National Academy of Sciences Committee chaired by James Killian and provided for in a bill passed last November by the Senate (the Kennedy bill). There are a number of advantages and disadvantages of this proposal, and there are other alternatives that warrant consideration.

Critical Considerations

Critical considerations that bear upon a decision on science advisory arrangements include:

1. Integration of staff advice. There are few problems and issues requiring Presidential or Executive Office attention that involve only scientific and technical considerations. A group limited primarily to scientists and engineers is not well equipped to deal with other pertinent considerations -- economic, social, legal, political, intergovernmental, etc. Thus, the output of a scientific and technical group, even if it reports to the President, must be integrated with the work of others to provide a full analysis of a problem or issue and a full range of alternatives -- not limited to scientific and technical alternatives.

2. Focus of special purpose offices. Past experience with special purpose offices in the Executive Office indicates that they tend to become "special pleaders" or advocates for particular alternatives or programs, thus making more difficult the job of reaching balanced decisions among competing interests. For example, they advocate programs which involve additional funding for their constituancy.

3. Scientific community views. Pressure is growing steadily from scientific community leaders for action to restore some science presence in the White House. Arguments are often more emotional than substantive. (If not resolved this year, the subject could even be a campaign issue for scientists in 1976.)

4. Congressional action. There is a good chance that Congress will act on its own initiative this year to create some new Executive Office organization.

Alternatives

There are four principal alternatives that have been advanced for organizing scientific and technical advice.

Alt. #1 Propose legislation to create an Office of Technology and Science (as recommended in the Vice President's staff report, Tab A)

Arguments for:

- Would be fully responsive to the scientific and technical community.
- Would defuse the pressures in Congress to mandate their solution.

- Having independent scientific and technical advice immediately available could be useful on occasions.

Arguments against:

- As in the case of the arrangements existing prior to July 1973, there will be problems of integrating the work of this single purpose group with other elements of the Executive Office.
- Reestablishes the special interest problem.
- Would add substantially to the White House staff and would be costly.
- Would be viewed as Administration endorsement of Senator Kennedy's bill. Establishes a permanent and rigid structure.

Alt. #2 Continue the existing arrangements, wherein the Director of NSF also serves as Science Adviser. Or strengthen it with a formal Science Adviser to the President designation and involve him in more issues, perhaps through Presidential assignment.

Arguments for:

- White House scientific oversight is less important now than in the 1950's and 1960's, because line agencies and NSF are much better staffed to deal with technical considerations. The Science Adviser can devote more staff and funding resources to the function since he can draw upon all NSF resources.
- The Science Adviser has functioned principally as an adviser to the OMB. His advice is integrated with other inputs -- avoiding the "special pleader" problem.

Arguments against:

- The arrangement is not satisfactory to the scientific community which has complained of three principal weaknesses:
  - The Science Adviser is not involved in national defense issues, thus there is essentially no scientific and technical review from outside DOD. (In fact, NSC established in 1973 a scientific advisory apparatus consisting of technical staff and 25 technical consultants.)
  - The Science Adviser is too far removed from the President.
  - The Science Adviser has a "conflict of interest" in that he must seek and defend before OMB NSF's request for R&D funds while also evaluating R&D requests of other agencies.
- Elements of the Executive Office other than OMB have received relatively little help from the Science Adviser.
- The selection of this alternative will probably result in legislation such as the Kennedy bill.

Alt. #3 Appoint a Science Adviser to the President on the White House staff. Provide him with a few (1 to 3) professional assistants and expect him to draw upon scientific and technical expertise in agencies and from non-Federal ad hoc committees -- much the way Bob Goldwin functions with the academic community. The Science Adviser would continue to draw upon NSF for staff support. NSC's existing staff and advisory group would be continued and would work closely with the Science Adviser.

Arguments for:

- Provides a "science presence" in the White House.
- Provides additional expertise for addressing critical issues that involve scientific and technical considerations.
- Avoids institutionalizing another large special purpose staff.

Arguments against:

- This limited arrangement may not be adequate to satisfy the scientific community (e.g., it might not meet the criticism that the President needs technical advice independent of NSC and DOD on defense matters) or head off Congressional action.
- Once created, pressure may still be strong to expand it to a full-blown office or council.
- The Science Adviser may become a special interest advocate.

Alt. #4 Expand significantly and restructure the policy analysis capability of the Executive Office of the President by creating a more broadly based analytical or planning group which includes scientific and engineering experts.

Arguments for:

- The policy analysis and long range planning capabilities of the Executive Office are not adequate and should be expanded.
- Scientific and technical expertise should be integrated with other parts of the policy analysis and decision making structure.

Arguments against:

- This would involve rethinking and restructuring the roles of OMB, NSC and Domestic Council and has not been developed adequately to permit serious consideration at this time.
- Such expanded White House-Executive Office capability probably would be opposed on the Hill and by line agencies.
- Probably would not be acceptable to the scientific community which tends to view integration of its advice at some level below the President as de facto subordination of scientific advice.

Recommendation

From the standpoint of substantive contribution to improve decisions, I do not believe that it is necessary to provide new scientific and technical capability in the White House or Executive Office. However, the growing pressures from the scientific community and the Congress are compelling reasons for some action. I believe Alternative #3 (Science Adviser with small staff) is the best course of action and recommend that you direct that further development of this alternative be undertaken. I also recommend that you meet with leaders of the community before deciding a course of action.

Brent Scowcroft, Jim Lynn (Paul O'Neill), Phil Areeda and Phil Buchen also recommend Alternative #3.

Decision

Proceed with the development of a detailed proposal to:

_____ Create an Office of Technology and Science (Alt. #1)

_____ Strengthen existing arrangements (Alt. #2)

_____ Appoint a Science Adviser with limited staff (Alt. #3)

_____ Explore further the development of a broad policy analysis capability (Alt. #4)

SCIENCE, TECHNOLOGY AND THE PRESIDENT'S EXECUTIVE OFFICE

Recommendations

February 5, 1975

February 5, 1975

SCIENCE, TECHNOLOGY AND THE PRESIDENT'S EXECUTIVE OFFICE

Recommendations

1. There should be a scientific and technological capability directly available to the President

   (a) Many issues that come to the President, either for decision or for initiative, involve science and technology, sometimes to a very high degree, in the analytical and judgmental process.

   (b) While the federal departments and agencies have, and should have, scientific and technological competence of high quality, the President should have available to him an independent source of scientific and technological judgment of the very highest quality. The organization set up to provide such a source for the President must not be, or be perceived as, the representative of the scientific and technical community in the President's office.

   (c) While the present need for such a capability is clear, in our complex and technologically varied society, the need to draw upon science and technology to meet urgent problems and opportunities will be even greater in the decades ahead.

2. This capability should be lodged in an Office of Technology and Science

(a) An Office of Technology and Science should be established by Congressional action and should be headed by a Director who should also have the title of Science and Technology Advisor to the President.

(b) An Office, better than a single Advisor, or a Council or Committee of Advisors, can

-- cover the full range of necessary competence without seeming to subordinate one area to another;

-- interact with (and "translate" the reports of) ad hoc expert task forces of consultants drawn from a variety of disciplines in and out of science and technology;

-- call on and utilize the best scientific, technological and professional talents in the country for specific tasks relevant to the President's responsibilites;

-- resist the pressures to make the President's Science Advisor the "spokesman for science and technology" as distinguished from the President's need for scientific competence in meeting his national responsibilities.

3. The areas of potential activity for the Office of Technology and Science should be principally:

[Note: Not all of the following activities need be undertaken at the outset. The functions of the Office should be allowed to grow as the President may require, as relationships with the departments and agencies of government develop, and as emerging national programs, policies and issues may make desirable and useful.]

(a) To respond on scientific and technical matters to requests from the President with respect to issues that are before him for decision, or new initiatives.

(b) To help the President resolve conflicting advice involving scientific matters that come to the President from departments, agencies or the Congress.

(c) To organize ad hoc panels of consultants to assist in the collection and evaluation of relevant data with respect to particular technical and scientific issues.

The membership of such panels would be drawn from the special competence available in the private and public sectors including universities, the National Academies, industry, and government laboratories.

(d) To provide the President with early warning of either

-- opportunities, or

-- problems

that have a scientific or technological component, including some longer range forecasting of such opportunities, problems or developments.

(e) To identify and report on any gaps in scientific research and technological development in the public or private sectors that merit attention.

(f) To consult with the President on the appointments of various scientific and technical officials in the federal agencies.

(g) To stay in contact with the professional staffs of the federal departments and agencies, and of state and local governments, as well as with private sector organizations involved in science and technology.

(h) To be available for participation in reviews of policies and programs of the departments and agencies having technical responsibilities and thus to assist in the formulation of national policy on technical and scientific matters.

(i) To assist the Domestic Council, the National Security Council and the OMB in reviewing department and agency programs that have technical and scientific content.

(j) To have a modest budget to initiate analyses and studies in support of the ad hoc panels mentioned in subparagraph (c) above. These analyses and studies would be performed in

universities, private industry or federally supported institutions.

4. Organization of the Office

(a) The full-time Director of the Office should serve at the pleasure of the President.

(b) The Director should have a full-time deputy responsible for the administration of the Office who need not be a scientist.

(c) There should be provision for a flexible number of full-time Assitant Directors (up to five) so as to cover a decent range of professional disciplines without trying for "representation" of every professional discipline or interest. and to respond to the possible growth in Presidential needs for special competence.

(d) Provision should be made for a flexible number of full-time professionally qualified staff (up to a dozen) as well as a clerical staff to meet the responsibilities of the Office as they may develop.

(e) The ad hoc advisory panels (mentioned in paragraph 3 above) which are central to the effective functioning of the Office should:

(i) be exempt from the Federal Advisory Committee Act.

Frank and objective advice cannot be expected to be available if exposed to continuous and public scrutiny and controversy.

(ii) have their members, in general, appointed by the President.

(iii) serve on a part-time basis for a limited term;

(f) The Director would maintain close relationships with the National Academies of Science and of Engineering and the Institute of Medicine and, in establishing ad hoc panels, would make full use of their membership, as well as of academic faculties and such organizations as the Social Science Research Council.

(g) The Office in its initial full year of operation should have an annual budget in the $1 to $3 million range.

(h) Since science and technology are profoundly interrelated (not only among the scientific disciplines themselves, but with domestic and foreign social and political issues and the intellectual activity of the nation) the area of the Office's concern should be broad and include:

-- social and behavioral sciences

-- physical and life sciences

-- medicine

-- engineering

-- military applications

-- international aspects of science and technology

-- science and technology in the private sector

-- education and training of scientific manpower

5. The Qualifications of the Director

The Director must have, or be the type of person who can readily gain, the personal confidence of the President.

He or she should be a scientist, engineer or medical person of proven scientific or technical capability, have some experience in public service or administration, and should preferably be a member of one of the National Academies of Science or Technology or the Institute of Medicine.

ADMINISTRATIVELY/CONFIDENTIAL

THE WHITE HOUSE

WASHINGTON

February 28, 1975

MEMORANDUM FOR: HONORABLE RUSSELL TRAIN

FROM: JIM CAVANAUGH

SUBJECT: Science and Policy Analysis in the Executive Office

This is to acknowledge and thank you for your memorandum to Mr. Rumsfeld of February 10, 1975, which recommends establishing a new agency in the Executive Office of the President which would combine scientific advisory and long-range policy analysis functions. The type of organization that you have recommended appears quite similar to that suggested by some others (e.g., Don Rice of Rand Corporation) who have studied the science advisory issue.

This approach has been brought to the President's attention for consideration along with other alternatives that have been identified.

Thanks again for taking the time to give us the benefit of your thinking on the issue.

2/26

THE WHITE HOUSE

WASHINGTON

February 19, 1975

MEMORANDUM FOR: MIKE DUVAL

FROM: WARREN ~~HENDRIKS~~

SUBJECT: Presidential Science Advisor

Would you please include the attached memorandum in the file on the above subject.

If you feel an acknowledgement is necessary, would you please provide such a letter for Jim Cavanaugh's signature.

Thanks.

Attachment

Referred to Glenn (2/27).
Letter sent to Cavanaugh for signature 3/5.

3/10 Suspend

THE WHITE HOUSE
WASHINGTON

February 14, 1975

JIM CAVANAUGH

FROM: JERRY JONES

The attached correspondence is referred to you for appropriate action.

Thank you.

United States
Environmental Protection Agency
Washington, D.C. 20460

February 10, 1975

The Administrator

MEMORANDUM FOR: Mr. Donald H. Rumsfeld
Assistant to the President

SUBJECT: Science and Long-Range Analysis in the Executive Office

It is my understanding that various options for establishing a science and technology advisory function in the Executive Office are being considered. With a research and development budget of roughly $250 million in EPA, including a major network of laboratories across the country, I have a strong interest in this matter and wish to take this opportunity to express some ideas for consideration.

First, I fully support the concept of a Science Advisor in the White House. I believe that the President should have regular and easy access to the views of the scientific community as well as the direct advice of his own scientific advisor. In addition, I believe that an office comparable to the old Office of Science and Technology should be reestablished. Such an initiative by the President would have strongly positive reactions throughout the scientific and academic community. Moreover, such a staff could address scientific and technological issues in a comprehensive, integrated fashion which is exceedingly difficult to achieve through individual agencies. I recognize the problem of coordinating such a mechanism with OMB but see no compelling reason why this problem should be any more difficult of solution that that posed by the advisory functions of CEA and CEQ, among others.

(I am sensitive to the argument that a Science Advisor is only as effective as a particular President's own interest in the field and that his effectiveness cannot be assured by institutional arrangements such as an OST. This is obviously true. The effectiveness of an OST will wax and wane depending upon the Presidential relationship. But this fact alone does not militate against the creation of the organization. Indeed, its very existence may be more vital in an Administration where the President does not have a strong science and technology orientation.)

Secondly, if an organization comparable to the old Office of Science and Technology were to be reestablished, I would strongly urge that its scope be broadened to include long-range analysis of policy issues and alternatives. There is a significant lack of such a capability in the Federal Government today. Agency planning necessarily emphasizes the short-term, often parochial, aspects of decision-making. There is a pressing need for comprehensive analysis of the complex interrelationships of economic, energy, environmental, food, natural resources, and population, among other factors. This capability should be part of the Executive Office. It should be separate from the Domestic Council with its emphasis on immediate and near-term issues. It could be created within OMB, but in my opinion this option would have many disadvantages. OMB's normal time frame is substantially shorter than the long-range need which I have described. Moreover, OMB has its own perspective -- budgetary control -- which, while enormously important, should be part of but not necessarily controlling the options developed for Presidential consideration.

In summary, I recommend establishment of a new agency in the Executive Office of the President which would combine both the scientific advisory and long-range policy analysis functions. Such an agency might be called the Office of Research and Analysis and its head the Director of the Office of Research and Analysis.

Not only would such a proposal reestablish a much-needed scientific function, it would also constitute a fresh initiative in keeping with the President's concern for new directions for the country.

Russell E. Train

cc: The Vice President
Mr. James Lynn
Dr. Guyford Stever

Pat —
Jill

THE VICE PRESIDENT
WASHINGTON
February 26, 1975 S SUES

MEMORANDUM FOR THE PRESIDENT

FROM: The Vice President

SUBJECT: Re-establishing a Science and Technology Advisory Apparatus in the Executive Office of the President

This is in response to your request for a memorandum concerning the re-establishment of a science and technology advisory apparatus in the Executive Office of the President.

PROBLEM

The dissolution of the science advisory structure in the White House in 1973 was greeted with great dismay by the scientific community. Pressure is growing steadily from scientific community leaders for action to restore some science presence in the White House.

A June 1974 report by a special committee of the National Academy of Sciences, recommending the creation of a Council on Science and Technology in the Executive Office of the President, has heightened this pressure and has made likely Congressional action to re-establish some kind of scientific and technical policy organization in the Executive Office of the President.

Unless the Administration is prepared to accept whatever Congress enacts in this regard, serious consideration should be given to taking the lead on this issue in order to assure a structure which can fit comfortably into the existing White House operation.

(A brief background statement, placing this issue in historical perspective, is attached at Tab A.)

FUNCTIONS

The scientific community is now generally united in the belief that the President should have available to him an independent source of scientific and technological judgment on a wide range of areas, including:

-- social and behavioral sciences;
-- physical and life sciences;
-- medicine;
-- engineering;
-- international aspects of science and technology;
-- science and technology in the private sector;
-- education and training of scientific manpower.

They have pointed out that a White House science and technology advisory apparatus could perform the following vital functions:

1. Advising the President in the formulation and review of national policies in areas involving science and technology development. Energy, transportation, environmental planning, health care delivery and food supply are examples of these.

2. Providing technical advice for the President and his staff, including the Domestic Council, the Council of Economic Advisers, and the Office of Management and Budget, on specific issues and questions dealing with science and technology.

3. Working with the Federal Council on Science and Technology in coordinating the large existing in-house capability of the Federal government in scientific and technological research and development. There are approximately 100,000 people employed in Federal research and development establishments, and it is important to see that this large and sophisticated work force is properly and effectively employed.

4. Identifying and reporting on gaps in scientific research and technological developments in the public and private sector and initiating studies where appropriate.

5. Providing the President with "early warning" of problems, opportunities or developments that have a scientific or technological component, including some longer-range forecasting of such problems, opportunities and developments.

6. Consulting with the President on the appointments of various scientific and technical officials in the Federal agencies.

Moreover, the scientific community is now in full agreement that the proper function of such an advisory apparatus is to advise and service the President -- not to advocate the views of scientists.

STRUCTURE

OPTION 1. CREATION OF A COUNCIL OF TECHNOLOGY AND SCIENCE ADVISERS

The President could propose legislation creating a 3-member Council of Technology and Science Advisers in the Executive Office of the President. The Council would be similar in function to the Council of Economic Advisers. The members of the Council would be appointed by the President from among the different disciplines in the science and technology fields. The Chairman of the Council would also serve as the President's Technology and Science Adviser.

(VARIATION: Some have proposed creation of a 7-member Council, composed of four Presidential appointees and the Presidents of the National Academy of Science, the National Academy of Engineering and the Institute of Medicine serving ex officio.)

STAFFING: The Council's staff would consist of an Executive Assistant to the Chairman and a number of professional assistants (15-20) and supporting clerical staff. The Council would also be authorized to establish ad hoc committees composed of governmental and/or non-governmental experts to do in-depth analyses of selected problems and issues.

FISCAL IMPLICATIONS: $2.5 - $5 million annually.

ARGUMENTS FOR:

-- In essence, this is the approach embodied in the "Kennedy bill" passed by the Senate last year. It incorporates the recommendation of the National Academy of Science's special committee, and is fully responsive to the scientific community's demands.

-- This assures greater depth in the science and technology advisory apparatus and greater representation and input from the various disciplines in the science and technology field.

-- This would ensure an ongoing structure in the Executive Office of the President fully capable of rendering scientific and technological advice or performing such other related responsibilities as the President may assign to it.

-- The authority to create ad hoc groups permits tapping of the resources of the scientific community.

ARGUMENTS AGAINST:

-- This structure might be difficult to integrate into the existing White House operation.

-- It is more susceptible to "politicization" both as to its internal operation (with each of the three members representing the views of his own constituency) and as to its relationship with the Administration (because of the structural autonomy of a council).

-- It would result in a visible increase in the size and budget of the White House.

-- This structure is larger than is necessary to meet the problem and is also unwieldy.

OPTION 2. CREATION OF AN OFFICE OF TECHNOLOGY AND SCIENCE

The President could propose legislation creating an Office of Technology and Science in the Executive Office of the President. The Director of the office would be a highly qualified scientist appointed by the President, who would serve also as the President's Technology and Science Adviser.

STAFFING: In addition to the Director, the office would have a Deputy Director (for administration) and, as is required

-- up to five Assistant Directors (for various specialties);
-- up to twelve professional assistant; and
-- supporting clerical staff.

The Director would also be empowered to establish ad hoc committees composed of governmental and/or non-governmental experts to do in-depth analyses of selected problems and issues.

FISCAL IMPLICATIONS: $1 - $1.5 million annually.

ARGUMENTS FOR:

-- This is largely responsive to the legitimate demands of the scientific community and could, therefore, be expected to satisfy the Congress.

-- It assures to the President and his staff the availability of a broad range of scientific and technical expertise. This would be tremendously useful to the Domestic Council, the Council of Economic Advisers, the Office of Management and Budget, et al.

-- This structure will help to assure the development of an on-going scientific and technological capacity in the Executive Office of the President.

-- The authority to create ad hoc groups permits tapping of the resources of the scientific community.

-- This structure is sufficiently flexible to permit growth of in-house capacity when and as necessary.

ARGUMENTS AGAINST:

-- This would involve Congressional action to implement (and, of course, to undo).

-- There are those who feel that this would unduly increase the size of the President's staff.

-- Some contend that the need for a science and technology capacity in the White House does not justify the creation of an office.

OPTION 3. APPOINTMENT OF A SCIENCE AND TECHNOLOGY ADVISER TO THE PRESIDENT

The President could, by administrative action, appoint a full-time Science and Technology Adviser to the President to serve on the White House staff.

STAFFING: The Science and Technology Adviser would be authorized a few (1-3) professional assistants and supporting clerical staff, but would otherwise have to rely on National Science Foundation professional staff for support.

FISCAL IMPLICATIONS: $100,000 - $200,000 annually.

ARGUMENTS FOR:

-- This could be accomplished by administrative act of the President.

-- It would relieve some of the pressure for Congressional action on this issue.

-- This would make available to the President and his staff at least some independent scientific and technological expertise.

-- This would be relatively inexpensive and would not significantly increase the size of the President's staff.

ARGUMENTS AGAINST:

-- This approach would satisfy neither the scientific community nor the Congress and, therefore, it could not be expected to avert independent Congressional action on the issue.

-- It is doubtful whether, under this structure, the Science and Technology Adviser could "cover the waterfront." Therefore, pressure to increase the size and scope of this apparatus will continue.

-- This structure is not suitable for the development of an on-going scientific and technological capacity in the White House.

-- This structure is not suitable for tapping the resources of the scientific community on an interim basis since the Science and Technology Adviser would not be empowered to create ad hoc panels for special research purposes.

PRESIDENTIAL DECISION

Proceed with further development of:

Option 1 _____

Option 2 _____

Option 3 _____

Discuss _____

A

BACKGROUND

President Truman

The concept of providing scientific and technical advice directly to the President in a formal way was initiated by President Truman in 1951. The Scientific Advisory Committee in the Office of Defense Mobilization met occasionally with the President and, in spite of its location in the Department of Defense, had direct access to the President. President Truman, himself, recognized this function of the group and dealt with them as personal advisers.

President Eisenhower

The "Sputnik" crisis of 1957 created a political situation that made it advisable to locate a scientific advisory structure in the White House itself. Accordingly, the scientific advisory function which was located in the Office of Defense Mobilization was moved to the White House and greatly expanded. An official with the title of Science Adviser to the President was appointed and a President's Science Advisory Committee was established.

The President's Science Adviser also served as Chairman of the new interagency Federal Council on Science and Technology, which took over the function of coordinating all of the scientific research and technical development going on with the Federal Government.

President Kennedy

In 1962, under a reorganization measure of the Executive Branch, President Kennedy created a large staff office in the White House under the Science Adviser to assist in advising the President and in overseeing the burgeoning Federal responsibility for science and technology. This office, called the Office of Science and Technology, also served as the staff arm of the President's Science Advisory Committee.

The Office of Science and Technology and the President's Science Advisory Committee were remarkably successful in heightening the overall interest in scientific and technical developments among the various Departments of the Federal government. In fact, their creation sparked the establishment of line offices in charge of scientific research and development in all of the operating Departments of the Federal government.

Through the early and middle 1960s, the Office of Science and Technology enjoyed a fairly prominent position in the White House, as the space and defense programs dominated the national scene. As the national focus shifted to the economic and social problems of the late Sixties, however, the role of the Office of Science and Technology in national policy formulation became less clear and its influence in the White House less substantial.

President Nixon

During the late Sixties and the early Seventies, the Office of Science and Technology became more and more of a "special pleader" for its science constituency -- advocating positions and ideologies not always consistent with Administration policy. Instead of serving to advise the President, the Office of Science and Technology often became his critic.

Finally, in July 1973, President Nixon abolished the position of Science Adviser, the Office of Science and Technology and the President's Science Advisory Committee. The functions of the Science Adviser were given to the Director of the National Science Foundation and those of the Office of Science and Technology and the President's Science Advisory Committee transferred to the National Science Foundation in civilian areas and the National Security Council in military areas.

Although many scientists viewed the dissolution of the science advisory structure in the White House as purely politically motivated, there were several good reasons for making some kind of change.

1. By the early 1970s, virtually all Federal Departments had developed their own scientific and technical arms. This significantly lessened the need for a large scientific and technical staff in the White House (which, after all, had no line functions).

2. The failure of the Office of Science and Technology's staff to relate to the White House policy formulating procedure made it difficult to integrate that Office's recommendations with those of other advisory functions in the White House. Therefore, as emerging national problems began to include components other than "hard" technology, the Office of Science and Technology became less effective and useful in contributing to Presidential-level decision-making.

3. As the Office of Science and Technology's allegiance to its constituency grew, its effectiveness in serving the President diminished.