state & society

Calls for a new White House science and technology council

A high-powered ad-hoc committee of the National Academy of Sciences, headed by former Presidential Science Adviser James Killian, has recommended that a Council for Science and Technology be established within the Executive Office of the President. Since the White House Office of Science and Technology was abolished on 1 July 1973 subsequent to the departure of Presidential Science Adviser Edward E. David Jr, NSF director H. Guyford Stever has been serving as Science Adviser to the President. Under the original plan he reported to the President through George Shultz, who has since resigned.

In hearings before the House Committee on Science and Astronautics late in June, Academy President Philip Handler endorsed the Killian committee's recommendations. The following day, however, David advocated the establishment of a much stronger White House mechanism. Further hearings, at which the four other former Presidential science advisers are expected to speak, were scheduled for 10 July. Meanwhile in the Senate a bill sponsored by Sen. Frank Moss (D-Utah), Warren Magnuson (D-Wash.) and Sen. John Tunney (D-Calif.) has been introduced; the bill incorporates much of the Killian committee recommendations. Senate hearings on this bill, at which five former science advisers were scheduled to testify, were to be held the day after the House hearings.

The Killian report, called "Science and Technology in Presidential Policymaking, a Proposal," recommends that a three-man Council for Science and Technology be established as a staff agency in the Executive Office of the President. Its members, one of whom would be designated chairman, would be appointed by the President with the advice and consent of the Senate and would serve full time. The council would have a staff of 25 or 30 professionals.

The committee expressed its admiration for the efforts of the NSF director in serving as science adviser to the President, but they feel that the "arrangement is inherently unsatisfactory and insufficient to serve the needs of the Presidency."

Other key recommendations were that:

- The Council chairman should serve as a member of the Domestic Council.
- The Council should participate actively in the work of the National Security Council. (The report points out that during the period when high-level, independent scientific and technological advice was available to the President and the National Security Council, there were many impressive accomplishments. As examples it cites studies by the President's Science Advisory Committee, also abolished in the reorganization last year, on the technical feasibility of monitoring a nuclear-weapons test ban, on development of an intercontinental ballistic-

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KILLIAN

Technology-assessment group urges more public activity

The need for public and scientific community involvement in governmental technology assessment was a major theme at a 20 June briefing held for public interest groups in Washington. The gathering, sponsored by the National Council for the Public Assessment of Technology, invited the groups to look into the workings of the Congressional Office of Technology Assessment. Serving as guides for this examination were the director of OTA, Emilio Q. Daddario; the chairman of the Technology Assessment Board, Edward M. Kennedy (D-Mass.); and the vice-chairman, Charles A. Mosher (R-Ohio).

TAB is the policy-setting part of OTA and is made up of members of Congress (PHYSICS TODAY, January 1974, page 109). TAB and OTA were created by the Technology Assessment Act of 1972. "It represents the appearance of institutional technology assessment in Congress," noted Byron Kennard, chairman of the sponsoring National Council. "In this instance, Congress is in the forefront of institutional innovation." The National Council is a newly formed, nonprofit organization that has evolved from a coalition of national, state and local citizen and consumer organizations concerned with the scientific and technical dimensions of social, economic and environmental issues.

Mission of OTA. The office was established with an initial authorization of $2 million for eight months to help Congress obtain the technical advice it needs. At present it is designed primarily to aid Congressional committees that need a particular technology assessed. Of ultimate importance, Kennedy commented, is the protection of the public interest. "I am hopeful that as a result of the office's efforts we'll be able to present to the Congress and to the American people a balance sheet of what the costs of a given technology are going to be. We in Congress have needed OTA for a very considerable time. I know in the Senate, there is often completely conflicting testimony—such as during the debate on the environmental impact of the SST. It depended during the course of the debate whether you wanted to believe one set of scientists or another. This created a great deal of confusion."

OTA will place heavy emphasis on objectivity—it is not a decision-making body, Mosher emphasized; that role re-

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mains with the Congress. Congress *does* need a means of getting technical advice to balance the expertise of the Executive branch. Mosher commented further: "There is heavy emphasis on technology assessment as an early-warning system, a defense against the potential dangers of a technology. Of course this is one of our roles, but we on the board have been stressing that an important part of our function is the positive role of discovery and defining of positive opportunities in technology and calling them to the attention of Congress."

Methods of OTA. The law establishing the office specifically provides for work requested by chairmen of Congressional Committees or by TAB members; requests by individual Congressmen are handled by the Library of Congress Research Division. In its early months OTA has done work on seven requests, a carefully selected group out of the 47 requests it has received from various committees. The areas of assessment are drug bioequivalency, automated mass transit, food, materials, oceans, energy and international trade including problems of international patents. Initially assessment work for OTA will be done by contracting for work to be done by outside researchers; the OTA staff has the largely managerial function of selecting appropriate technology assessors. When asked how objectivity among contracted workers would be achieved, Mosher replied, "It is the role of the OTA staff to ensure objectivity. I assume that occasionally, on certain questions, we will put out two or three contracts to groups that would bring in different points of view."

What will the role of colleges and universities be in OTA's work? First, said Mosher, they will be a source of scientists to be hired by OTA for research contracts. Second, technology assessment is largely an interdisciplinary exercise, virtually an art form. Colleges and universities can participate in this interdisciplinary training. Also interns have served and are expected to continue serving the Congress and OTA. Other scientists have become involved in the Congress by receiving fellowships from various scientific organizations including AAAS, IEEE and The American Physical Society.

An open office. Involving and informing the public about technology assessment is important, and it is expected to cause many of OTA's workings to be accessible and visible. First, Daddario said, there will be a high mobility of consultants—workers who will come in and out of service to OTA. After serving OTA, they can bring information about government workings to the private sector. The specific OTA panels are also expected to have representation from special-interest groups. Daddario explained that the panels are to make frequent reports to the Congressional committees they serve; this frequent interaction is designed to allow the committee members to see the problems and conflicts that surround the given technology. To provide proper liaison to the public and public interest groups. Daddario indicated that OTA expects shortly to establish an office of public participation.

Daddario then fielded other questions about the operation of OTA. Would an energy report be ready in time to plan for the next budget (FY 1976)? "A technology touching on so many issues could not be adequately assessed in just a few months," he said, "but information from OTA assessors will be available to Congress on an ongoing basis." What about cooperation with the Federal Energy Administration? "We expect to work cooperatively with the FEA, but Congress must have an independent source of information; FEA serves the Executive branch." Considering that technology assessment has taken place in some areas by other agencies, how will duplication of effort be avoided? Daddario responded that a proper search of the literature should serve to avoid this.

Getting involved. Kennedy, Mosher and Daddario all emphasized that input from the public, public-interest groups and the scientific community is welcome and desirable. Daddario said, for example, that although TAB has the final say in selecting panel members, input and suggestions are sought. With regard to the scientific community, Mosher noted, "The scientific and technical communities have traditionally been much too timid about their participation in government. They've been timid, fearful, hesitant—and disdainful of politics. It's extremely important that they become involved. We want to encourage this at all levels." —RAS

White House advice

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missile capability, on intelligence satellites, on biological warfare, on the laser-guided bomb in Vietnam and on submarine design.)

- The Council should have a role in those areas of foreign policy strongly affected by scientific and technological considerations.
- The Council should cooperate closely with the Office of Management and Budget on significant issues involving science and technology. The council should help in establishing priorities.

The committee also recommends that the Council submit annual reports to the President and Congress on major developments in science and technology of significance for national policy. These reports would identify significant new opportunities or raise important problems that affect society as a whole.

In a corollary proposal, the committee urged that the Executive Office of the President develop a separate staff capability for long-range policy research and analysis beyond that needed for annual budget reviews.

Although the Council for Science and Technology could be established without legislation, the committee preferred legislative action in order to strengthen the Council's ties to the Congress.

The hearings before the House Committee on Science and Astronautics are part of a two-year program that began in July 1973; it is designed to cover the organization of science in the Federal government. At the June hearings the committee chairman, Olin Teague (D-Texas), announced that a bill taking the Killian report into consideration would be drafted, presumably this session. It is expected that hearings on the bill would probably be conducted some time next year.

In his testimony David (who is now executive vice-president of Gould Inc.)

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