Science Adviser Press: First Hints of How He Is Doing

Seldom has a weighty report prepared by a scientific panel gained such immediate attention at the highest levels of government. Last month a Ford Foundation panel issued its 418-page volume, *Nuclear Power, Issues and Choices*, which urges a slowdown in the rush toward a plutonium-fueled economy in this country and abroad (*Science*, 1 April). Later that day, the members of the study group were escorted in to brief President Carter himself. And still later that same day, the President passed a copy of the report on to Japanese Prime Minister Takeo Fukuda. The Japanese, who believe their energy future may be inextricably linked to plutonium, were not visibly delighted. But, in a town where most policy reports die a slow death from neglect, it was considered something of a marvel to see this one shoot up to the highest levels of international diplomacy within hours of its release.

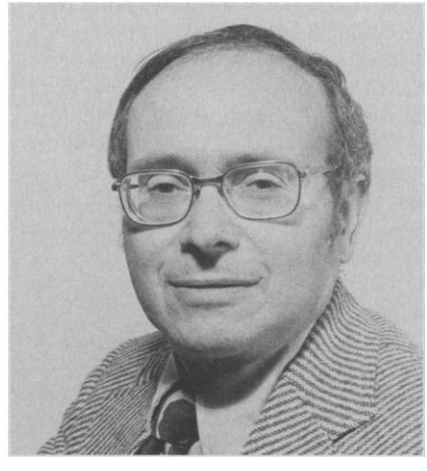
The man who largely engineered this feat was Frank Press, President Carter's new science adviser, who says he arranged for the panel to brief Carter because "The President needs the best advice he can get. If I'd set up the panel myself, I would have picked the same people."

It would be misleading to infer that every major science policy report will henceforth find its way into the President's very own hands. But the episode does indicate that Science Adviser Press has the ability, at least for now, to catch the President's attention on a substantive issue, and that the President is willing to grapple with complex, technical issues. The episode also suggests that Press may make somewhat greater use of advisory reports prepared by groups outside of government than did most of his predecessors in the job of science adviser. Already Press has been singing the praises of a National Academy of Sciences' report on environmental regulation, and he has indicated a willingness to look at reports by professional societies, such as the American Physical Society's 1975 study on reactor safety.

Such reliance on outside reports would make some White House watchers nervous. Those who disagree with the thrust of the Ford Foundation report, for example, are wondering why that report, among the scores that have been issued on energy and proliferation problems, deserved to be hand-delivered to the President. They fear that such reports might be used as window dressing to buttress a preconceived case, or that the President might be shown only those reports that support a particular policy. But the proper use of outside advice will be one of the responsibilities of the science adviser, and at this writing it is far too early to pass judgment on how he will perform.

Press has been on the job for more than a month now, but he has been keeping a relatively low profile pending his formal nomination as director of the Office of Science and Technology Policy (OSTP) by the White House (that has already occurred) and his formal confirmation by the Senate (that's expected to occur shortly). His period of reticence was finally broken on 7 April when he testified at confirmation hearings before the Senate Committee on Commerce, Science, and Transportation and submitted written replies to 75 questions posed by the committee. He also granted a series of interviews to reporters that same week. In the process, he gave the first broad indications of how he is getting on with the President, what he has been doing, and what he hopes to do.

At the outset, it must be acknowledged that one month is not a long enough time to establish much of a track record, particularly for a newcomer to the Carter team who has not even been working full time in his initial weeks on the job. "I've only been here a month—I'm not an instant expert on everything," Press cautioned *Science* in an interview. Indeed, Press's contribution to some of the major technical issues that occupied the Administration's attention during that month—the arms limitation talks in Moscow, the planning of a new Department of Energy, the decision to slow down programs to develop a breeder reactor and a nuclear reprocessing plant, and the development of plans to regulate recombinant DNA research, among others—seems to have been negligible. At the confirmation hearing, Senator Harrison Schmitt (R–N.M.) told Press he was "tremendously disturbed" that Press had not been consulted in the breeder reactor decision. But that may just be the lot of the new arrival who finds the energy turf already occupied by James Schlesinger, Carter's energy czar and reputedly one of the more powerful figures in the Administration.



Frank Press

Press has been devoting considerable attention to what he considers his "most important" initial task—"getting to know the people in the White House." His relationships with the President and senior presidential aides will largely determine how effective he can be, as some previous science advisers who failed to build adequate bridges to the key power centers in the White House can testify. Thus far, Press says his working relationships have "gotten off to a good start." He attends the daily senior staff meetings at the White House, sits with the staff at Cabinet meetings, and has been getting acquainted with such power centers as the Office of Management and Budget, the National Security Council, and the Domestic Council.

As for his most important relationship—that with the President—Press reports that during the first month he saw Carter three times under circumstances in which they could interact. The discussions dealt not with substantive issues but rather with how the science adviser might best serve the President. Press says the chief mode of communication in the Carter White House is one-page memos which the President answers "fast—almost overnight." Then, if a follow-up discussion is needed, it is arranged. Although Press meets with Carter far less frequently than do other top White House aides (some of whom see the President daily), he believes he will be able to gain access when he needs it. It's an "extraordinarily efficient" system, in Press's opinion.

Press says he finds that Carter—whose engineering background qualifies him as

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limits apply only to ^{85}Kr produced as a by-product of electrical power after 1 January 1983. The regulations do not limit the release of ^{85}Kr resulting from plutonium production reactors, naval nuclear propulsion reactors, or research nuclear reactors, and leaks to the atmosphere from underground nuclear tests. Nor do they apply to nuclear power reactors outside the United States. Gjørup implicitly assumes that all nuclear fuel reprocessing plants in the world will adopt control measures similar to those required by the United States. I am not convinced this assumption is presently realistic and conservative. I prefer to increase the range of uncertainty of atmospheric ^{85}Kr predictions. It is likely that the world usage of nuclear fission will continue to grow in the next century, and a reduction in ^{85}Kr releases per unit output may be offset by a corresponding growth in total nuclear energy output.

I urge caution before drawing any conclusions from a comparison of ^{85}Kr effects to other phenomena. First, when comparing ^{85}Kr ionization to natural background ionization, one should not implicitly assume that the preexisting ionization background level is at an optimal value. For example, although mankind has survived millennia in an unavoidable natural background of ionizing radiation, background radiation is not necessarily beneficial.

Second, particulate pollutants will have an effect on cloud formation not compensated for by ^{85}Kr.

Third, the removal mechanisms for atmospheric aerosols are much more rapid than the radioactive decay of ^{85}Kr. The result is that ^{85}Kr can contaminate even the pristine air in remote regions of the globe. I would expect that the atmospheric electrical conductivity would show a net decrease due to particulate pollution in regions downwind of industrial countries and a net increase due to ^{85}Kr ionization in remote regions of the oceans.

Within a human lifetime, the nations of this world will have a capability to manipulate the ionization background of the lowest layers of our atmosphere. I believe the implications of that capability should be carefully examined.

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References

1. Environmental Protection Agency, *Fed. Regist.* **42**, 2858 (1977).

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the most technically competent Chief Executive since Herbert Hoover, an engineer—knows a substantial amount about science and technology. Press calls the President "an expert" on energy, says he "knows a surprising lot about technology in the national security areas," and is well-versed in agricultural and space technologies, too. Indeed, some observers suspect Press will have more trouble communicating with top White House aides than with the President himself.

The staff support available to Press may be somewhat less than that enjoyed by his predecessor and somewhat less than that expected by Congress. The OSTP currently has some 16 professionals and is authorized to appoint four associate directors. But Press told the Senate committee he expected to appoint only one associate director and indicated he might have somewhat fewer professionals than at present because President Carter has put out the word to operate "a lean White House." The size of the staff will be determined in large part by a study now under way to reorganize all components of the Executive Office of the President. Any staff cuts would probably be offset by greater reliance on consultants from the research community. Eugene B. Skolnikoff, director of the Center for International Studies at the Massachusetts Institute of Technology, has already been tapped to spend part-time assisting Press in a review of bilateral scientific agreements.

Press has been revving up the three statutory committees associated with his office. He hopes that the Federal Coordinating Council for Science, Engineering, and Technology will develop "real clout" in coordinating federal programs—a wish that his predecessors shared to no avail. He plans to use the new Intergovernmental Science, Engineering, and Technology Advisory Panel as a device by which state and local officials can voice opinions on priorities for federal R & D programs that affect them. (That effort may carry some weight, since the President has voiced a desire to give local officials greater say over federal programs, and both Bert Lance, Carter's budget director, and Jack H. Watson, Jr., the President's assistant for intergovernmental affairs, participated in the panel's first meeting.)

He has also forwarded to the White House a new list of nominees for the President's Committee on Science and Technology, which is conducting a 2-

year study of the national effort in science and technology. The committee had been appointed by the previous administration, as required by law, and its members were rather shocked to find their pro forma resignations accepted en masse by the Carter Administration. Press says that the Carter transition team had already recommended that the resignations be accepted before he arrived and that he "sensed what the White House wanted to do and did not oppose that recommendation." Whatever the reason for the action, it removes a Republican-dominated committee that was a bit out of tune with some elements of the Carter Administration (*Science*, 17 December 1976). The reconstituted committee is apt to retain a few holdovers to provide continuity. The most likely bets are Charles P. Slichter, a University of Illinois physicist, who is heading a study of basic research in the mission-oriented agencies, and Paul O'Neil, a former budget official whose knowledge of government is particularly sought.

Press is already carrying out a number of studies or preliminary inquiries, including reviews of the qualifications of candidates for science-oriented posts in the Executive Branch; an attempt to estimate the nation's uranium resources (existing estimates differ widely); a preliminary inquiry to ascertain whether government regulation seems to be inhibiting R & D; and some tasks in the national security area, where the Carter Administration is trying to determine how the United States and Soviet Union compare in various elements of strength, including technical resources. Press told the Senate committee that, in terms of basic research that is relevant to national security, "we're in pretty good shape" compared to the Soviets. But his written response declined to comment on the net technological comparison pending completion of the National Security Council study. Generally, he said, American technological capabilities are unrivaled in quality and quantity. Press told *Science* that he was surprised how much he had become involved in national security issues and noted that any large volume of such tasks could easily swamp his staff.

Press indicated that his top priorities include support of basic research, stimulation of industrial research, the use of science and technology in foreign policy, including technology transfer to developing nations, natural resources, energy, and space.

The confirmation hearing went relatively smoothly for Press. Occasionally, a senator would try to get Press to criticize a particular policy of the Carter Administration, but Press deftly sidestepped such traps, generally by professing to be a new boy in town who wasn't involved in setting the policy. Press came across as a cautious, reasonable, soft-spoken, unflappable fellow eager to satisfy any doubts that the committee might have about him. The biggest doubt seemed to be that Press has not resigned from his previous job at MIT, but instead has taken a 2-year leave of absence, just in case he doesn't last the full 4-year term of the Carter Administration, as he now intends. That, it was suggested, might pose a conflict of interest if Press's office wanted to hire MIT to do a job, or if Press had to make policy recommendations that might affect MIT. Press offered to resign if the committee insisted, but Senator Edward M. Kennedy (D–Mass.), who attended the hearing as the senior senator from Press's home state, seemed to head that off by asserting that such a forced resignation would be "extraordinary" and "more than anyone should ask."

By the end of the hearing, all three senators present indicated that they planned to submit more written questions to Press. But they also praised his abilities, and there seemed little doubt that he would win easy confirmation.

How well he will perform after that is a matter of speculation. One former science adviser—Donald F. Hornig, who served under Lyndon Johnson—has suggested that the office reached its peak of influence when George B. Kistiakowsky was science adviser for President Eisenhower. In a review of Kistiakowsky's recently published diary (*Bulletin of the Atomic Scientists*, April 1977), Hornig notes that he himself did not enjoy Kistiakowsky's influence, perhaps partly because of personal characteristics, but also because of "more fundamental problems," namely, the growth of competing science groups elsewhere in government, increased demands which spread the office "much too thin," and the distractions of issues (that is, Vietnam) that were not the province of the science adviser. "President Carter's appointee will face all of these problems and more," Hornig states, because new legislation "imposes broader responsibilities without providing any powers" and because the science adviser may be affected by "the presence of a strong energy adviser (James Schlesinger), and a Secretary of Defense (Harold Brown) who is himself an able scientist." All this makes Hornig wonder if the new science adviser will be able to "have as much effect" as Kistiakowsky.

—PHILIP M. BOFFEY