NSF Appointment: Science Elite, White House Reward Favorite Son

Horton Guyford Stever became director of the National Science Foundation (NSF) on 1 February, having been the favorite-son candidate of both the Nixon Administration and the science-government advisory system through which he has risen for 20 years.

To run NSF requires neither the guile of a Lyndon Johnson nor the scientific ability of an Einstein. The qualities needed for the job, according to the talent scouts in the White House and on the National Science Board (NSB), which helps to select the NSF chief, are three: he should have familiarity with the in's and out's of the Washington scene, have some administrative experience, and have sufficient scientific status to pass in review before the academic scientists whom NSF serves.

Stever's training in physics and engineering, his teaching and administrative career at Massachusetts Institute of Technology (MIT), his 7-year stewardship of Carnegie-Mellon University (CMU) in Pittsburgh, and service on over a dozen government science advisory committees since 1955 mean that he fits these standards to a T.

Small wonder, then, that Stever's winning the NSF job was a "foregone conclusion" according to many knowledgeable sources, almost from the moment in July when the previous NSF chief, William D. McElroy, announced that he would leave Washington to become chancellor of the University of California at San Diego. Small wonder, too, that Stever was all but offered the job in 1969, just after Nixon took office. However, Stever said he wished to remain at CMU longer. The Administration then turned to Franklin A. Long, of Cornell, but dropped that possibility because of Long's stance against the antiballistic missile system (*Science*, 25 April 1969). The Administration then turned to its third choice, McElroy.

But while Stever is a perfect product of the science-government advisory system which elevates men to high Washington posts, the system itself is far from perfect. Members of the group admit that the system excludes many top-level executives who don't bother to participate in the advisory committee square dance. It cannot lure the very best scientists who prefer the laboratory. It hides individual viewpoints on key issues through the endless ceremony of bland report writing. In fact, the advisory apparatus is so genteel and clublike that one prominent National Science Board (NSB) member who helped screen Stever for the NSF job said that he had "no idea" of Stever's views on the NSF's controversial RANN (Research Applied to National Needs) program, and that, in effect, he would be embarrassed to sit him down and ask him.

In an era of leaders whose pancake is often more visible than their programs, the smiling, affable Stever is outstandingly presentable. "Personable" and "likeable" are the adjectives most often used to describe him. (But one former colleague at MIT said waspishly: "Some people get ahead just because they look like they ought to get ahead.") Other colleagues assert that this presentability will be an asset in testifying before Congress. Indeed, with such honeyed statements as "science must move with the broad sweep of society" and some words about "the scientist as humanist," Stever slid smoothly through his confirmation hearings before the Senate Committee on Labor and Public Welfare on 30 November 1971, with hardly a ripple.

H. Guyford Stever

Having received his Ph.D. from California Institute of Technology in 1941, Stever then went to the Radiation Laboratory, at MIT, directed by Lee A. DuBridge, who was Nixon's first science adviser. Stever has had a 20 year teaching and administrative career at MIT, including being head of mechanical engineering, naval architecture, and marine engineering. His expertise is in propulsion, aerodynamics, and structures of guided missiles and aircraft.

Stever's principal credentials as an administrator, however, derive from his performance as president of CMU, where his main achievement was to preside over the merger, in 1967–68, of the Carnegie Institute of Technology (students: 4000) and the Mellon Institute (endowment: $35 million). The merger has been described by some of its architects as the "putting together of a major new university"; but to the outsider visiting it today, 5 years later, it seems more like a federation of uneasy potentates. One disgruntled individual whose department—chemistry—perhaps suffered the most turmoil as a result of the merger, says, "The merger was done with a minimum of planning, foresight, and care in execution. Sure the Mellon guys speak to the Carnegie guys. On the surface we all get along. But there was a lack of vigorous action to ensure that we became a university." Although his administration made a number of changes to help the university along, Stever himself admits that the merger has proceeded slowly.

Stever presided over CMU during a period of campus unrest, and he is often praised for having devoted much to the students. But the compliment rankles insofar as the faculty are concerned: a frequent gripe is that "Stever spent more time with the students than with the faculty." Asked his response to this comment, Stever—apparently

oblivious to its double-edged character —replied, "That's what I'd like to have engraved on my tombstone."

Just how Stever spent his time at CMU is also a matter of frequent criticism. He was the university's first "outside" president, constantly traveling to meetings of the host of government advisory committees on which he sat. His driver told *Science* that Stever went to and from the airport about three times a week. It is often said that, because of his many outside interests, Stever left much of the running of CMU to his vice president for academic affairs, Edward R. Shatz. Recently a planning committee completed a faculty report on how CMU should be run, which calls the concept of an "inside" and an "outside" president "invalid and unsound" for the needs of the university. Stever is familiar with the report, and responded in an interview to its criticisms by saying, "I would do a university presidency differently now."

Carnegie-Mellon University also has financial troubles. As of 30 June 1971, it had a cumulative current operating deficit of $2.3 million and all new unrestricted funds have been going into current expenses—not into reserves. Stever's predecessor as CMU president, John C. Warner, financed and built four major new buildings. By Pittsburgh standards, Warner was highly successful, since fund-raising is a very important Pittsburgh activity. In particular, the interests of the Mellon family there are so ubiquitous that the area has been nicknamed the Mellon Patch.

However, Stever's single big building project, Science Hall, had been originally estimated to cost approximately $4 million, then $9 million; but when it opened last fall, its cost had reached $15.5 million, of which $8.3 million was borrowed—in an unusual procedure for CMU—out of university endowment funds. Stever's fund-raising drive, called the Fund For Distinction, was scheduled to raise $55 million by the end of 1971; so far it has gathered $30 million with $7 million more pledged, according to CMU treasurer George O. Luster. Stever obviously faced a much tougher national financial situation than did Warner.

Stever's record as president of CMU perhaps illustrates the strengths and weaknesses he will bring to the NSF. But the story of how he got the appointment—which is one of Washington's science plums—is also revealing.

A number of sources close to the appointments mechanism have said that Stever was the Administration's first choice for the NSF job in early 1969. Stever himself confirms that "virtually all steps" up to a formal offer were taken at that time. As a result of his being chairman of the President's preinauguration task force on science and technology, Stever became acquainted with a key Nixon assistant, Peter M. Flanigan, whom Stever now terms a "good friend." Presumably Flanigan, and also Lee DuBridge, who was then stepping into the science adviser's job, advertised Stever to others on the White House staff. However, Stever says that he told the Administration body hunters that he wanted to stay on at CMU; he had only gone there in 1965.

The searchers then turned to Long but, as is well known, Nixon's heavy involvement with the fight for the ABM system and Long's previous criticisms of another version of the system caused consideration of him to be dropped. The Administration then nominated McElroy. One source summarized: "I was given to understand that it was always just a question of whether and when Stever wanted it."

Stever evidently wanted it, 2 years later, when at the 10 July 1971 meeting of the NSB at Woods Hole, Massachusetts, McElroy made a final telephone call securing the switch from his NSF job to that at San Diego. A source close to NSB said that, from then on, Stever's nomination was "a foregone conclusion." At Woods Hole, NSB went through their ritual of appointing a nominations subcommittee, chaired by Roger W. Heyns, now president of the American Council on Education. The White House also scrounged for candidates and submitted a list to NSB, on which Stever's name appeared. The NSB then screened the White House choices, allegedly added some new names to the list, and, after its 10 September meeting in Washington, sent a letter to the President's appointment chief, Frederic V. Malek, with five names. Stever's name ranked first.

Briefing

FDA to Relax Data Ban

Scientific decision making in the Food and Drug Administration (FDA) may become less of a closed-door process as a result of a significant change impending in the agency's public information policy. Announcement of the policy switch, which is still in the planning stage, was prompted by a lawsuit brought against the agency under the Freedom of Information Act.

The suit, filed by the Environmental Defense Fund, sought to compel the FDA to make available the safety data on sodium nitrite, a chemical additive widely used to preserve the color of processed meats. Until now the FDA has claimed that toxicological information of this kind, provided by manufacturers in their petitions to use a product, was a trade secret and therefore exempt from disclosure under the Freedom of Information Act (*Science*, 4 February).

In a letter sent last week to the Environmental Defense Fund, the general counsel of the FDA, Peter B. Hutt, promises to release the agency's data on sodium nitrite and asks the fund to drop its lawsuit. "We are in the midst of adopting a new policy for releasing information to the public," Hutt explains. "It is regretable that the lawsuit was necessary, but we can certainly understand your reasons for it."

The reasons for the suit go back as far as July 1970 when a Ph.D. student at Stanford University medical school, Dale B. Hattis, requested the FDA to furnish the safety data relating to a variety of food additives and pesticide residues. After nearly 18 month's worth of delays, rebuffs, and denials from FDA officials, Hattis finally took his case to the Environmental Defense Fund, which on his behalf filed suit against the FDA in February this year.

Replying to Hutt's letter, Thomas J. Graff, counsel for the Environmental Defense Fund, hailed the new FDA policy as a "significant milestone in the battle waged by members of the public to get access to information formerly hidden by a government bureaucracy unwilling to subject itself to public scrutiny. . . . Our victory stands as a precedent for any other public group or citizens who have an interest in overseeing the government's activities with respect to the safety of the nation's food and drug supply."—N.W.

The only other name confirmed as being on the final list was that of NSB's only black member, Lloyd M. Cooke, director of Urban Affairs, Union Carbide Corp. However, it is known that Lewis S. Branscomb, director of the National Bureau of Standards, and Robert L. Sproull, president of the University of Rochester, were also given serious consideration, at various times.

Did party affiliation play a role in aiding Stever to get the job? Most knowledgeable sources hasten to say that the NSF directorship is "apolitical." Yet the NSB managed to rubber stamp the selection of Stever, who is often described as "one of the few, good, Republican scientist-administrators." For some mysterious reason most participants in the science-government advisory apparatus, sometimes referred to as "science moguls," tend either to be Democrats or to keep their voting habits secret.

The fact that Stever has no well-known public opinions on controversial issues seems to have been an advantage. One kingmaker said that Stever, like McElroy, was desirable because he had "no missiles up his sleeves or airplanes in his pocket"—an apparent reference to Long's views on the ABM. An NSB member said bluntly, "We tended to exclude people who would obviously and self-evidently be unacceptable to the Administration, or people who had been highly active against the Administration. Somebody who would immediately be at odds with them was not acceptable." This remark, which was echoed by other sources, seems to indicate that, for the science moguls, steering clear of political controversy is an effort which, like charity, begins at home.

Winning the NSF job seems to involve a certain amount of politicking as well. At the time Long's candidacy was rejected, many members of the science community expressed indignation that Long's views on the ABM should have been a factor. However, Stever said at the time (*Science*, 25 April 1969), "No administration can withstand within itself an activist against itself." In 1970, after he joined the NSB, he offered to organize the Board's fourth annual report to the President. A non-NSB member who worked on the report (not yet released) made the following observation on Stever's role:

"He completely changed it from earlier drafts. . . . Ours was much lower-level nuts-and-bolts policy stuff. He made it bolster the President's hand and say all the right things, you know, about piggybacking the rejuvenation of science on jobs and the economy, and doing something for industry and technology."

Committee System

Stever's attractiveness to both the White House and the NSB, however, goes beneath the skin-deep issues of party affiliation and pocket airplanes. He is an extremely well-liked member of the science-government circle and has served on a dozen important advisory committees.*

Loyal committee work does not directly enhance one's administrative capabilities; moreover it can take time away from a scientist's work in the laboratory. But it does bear rich fruit in Washington. One can climb to high posts, eventually, without the encumbrance of having to publicly stand for anything. The only external committee work which the public can measure is committee reports. These rarely follow the Supreme Court's practice of issuing dissenting opinions over the signatures of the dissenters; as a rule they reflect only the blandest consensus of the group. For example, the NSF Special Commission on the Social Sciences, on which Stever served in 1969, concludes by warning NSF not to "feel constrained to establish an untimely institute" for social science work. Instead, NSF should "explore each field to learn the difficulties and obstacles, in the expectation that these may be removed." Committee statements like these can only be said to follow Oscar Wilde's dictum that "to be intelligible is to be found out."

One result of this gentility, however, is that members of the science-government circle do not know what each thinks. More than one source, asked for Stever's ideas on education or science support, replied only that Stever stood for "an identifiable point of view." One NSB member was asked what Stever had contributed to the NSB's deliberations. The answer was "his was a quiet voice of reason"—implying that the other members either talked loudly or tended to go mad.

Ostensibly, the NSB's job last summer was to screen candidates for the job. But one NSB member who has strong, specific concerns about the controversial RANN program at NSF, and who supported Stever for the post, was asked what were Stever's views on RANN. "I don't know what his view of RANN is," he replied. "I don't know his views. . . . The Board never turned to Stever and said 'Guy, we are considering you, and here is a list of questions.' They never do that. To anyone."

Since he took office, however, Stever has made several vigorous pronouncements on the basic-versus-applied research question. "Support of basic research is our primary function and will continue to be," he said in an interview, pointing out that the RANN program, often cited as the paradigm of applied work, includes a large component of basic research. Basic and applied work are "not an either-or proposition," he said.

The system of gentlemanly promotion (exclusive of behind-the-scenes wrangling: Stever says "I was not the unanimous choice of my good friends") excludes many people. Some very able college presidents and industry executives, for example, are excluded, because they don't know the Washington scene. Yet these could bring to NSF the top-flight executive talent it badly needs. And, of course, the system excludes many academic scientists whose love of research and teaching outweighs their taste for travel.

There are of course justifications for things as they are. In essence, the argument is that it is better to walk a man to first base than risk his hitting a home run or striking out. An OST staff member said: "If you bring in a raw outsider, there is such a disastrously long learning process. You just can't bring in a brand new boy. So they have warm-up periods which are all those advisory jobs, those mogul advisory committees. Those are just warm-up." After many years of warm-up, Stever has won a coveted Washington post. How well he does at NSF will be a test, both of Stever, and of the government–science advisory system that promoted him.—DEBORAH SHAPLEY

* Stever, contrary to what many think, never attained the pinnacle of the committee circuit: the President's Science Advisory Committee (PSAC), although he served as a consultant to PSAC in 1961. But he was deeply involved with the Air Force and NASA. The list follows: Scientific Advisory Board, USAF (1947–69); Chief Scientist, USAF (1955–56); executive committee, Defense Science Board (1956–67); steering committee, Technical Advisory Panel, Department of Defense (DOD) (1956–67); NASA special committee on space technology and research advisory committee (1958–59); Advisory Panel, U.S. House of Representatives, Committee on Science and Astronautics (1960); Board of Visitors, USAF Systems Command (1964); President's Commission on the Patent System (1965–67); Special Commission on the Social Sciences, NSF (1967–70); President's Ad Hoc Science Panel (1968–69); President's Task Force on Science Policy (1970); National Science Board (1970–present).