

The criticisms are couched in the most general terms, however. There are no horror stories, which is a pity, both because Bronk, Seitz, and the others doubtless know some vintage ones, and because the report creates an appetite for concrete cases which it does not satisfy.

Science committees obviously perform diverse functions, and some combine two or more of these functions. Some science committees provide purely technical advice in narrow scientific sectors. "Study sections" in such agencies as the National Institutes of Health evaluate grant applications and judge their comparative merits. General advisory committees meet to provide guidance on the science program of a particular agency, and policy committees may give even more broadly pitched advice on how an agency can achieve the mission it is assigned. Despite the differences, science committees face many of the same generic problems.

Predictably, the NRC study group found that the science committees were dominated by white, middle-aged males. According to the study, the median age of members of NRC committees is 50 years—virtually the same median age as Defense Department advisers. The median age of scientists holding the doctorate is 40. Women hold 7 percent of all doctorates, but only 1 percent are NRC committee members.

The study group urged that more people under age 35, more women, and more members of minority groups be identified and appointed to committees. The report's ambit is considerably broader than recruitment, however, and it puts forward a total of 21 recommendations, grouped under headings of administrative considerations, selection and recruitment of committee members, relations between advisory committees and sponsoring agencies, and an "ethic of service." The report was published in two sections—(i) a slim, pamphlet-sized section containing the recommendations and (ii) slightly weightier appendixes, which include a brief history of science committees and descriptions and evaluation of the data—much of it gleaned from NRC files—on which the recommendations were based.

Science committees have proliferated until, the report estimates, there are now about 1,500 operating. This means a total of roughly 15,000 members and perhaps 2,000 reappointments of incumbents and 3,000 new appointments a year. For science committees in general, the report contains a number of

sensible and widely applicable ground rules. A committee should be established only if a real need for it exists and should be continued only if the need persists. When formed, a committee should have its assignment clearly

stated and should get adequate staff and supporting services. The report recommends that agencies conduct annual reviews of its committees and terminate committees when their usefulness wanes. The group takes a Jeffersonian

## David Visits Japan, Far East

When superpowers start making agreements with each other, they often have to mend fences with other little-, medium-, and big-sized powers. This seems to be also true of scientific summitry. After President Nixon went to Peking, and before his recent trip to Moscow (see *Science*, 9 June), Presidential Science Adviser Edward E. David, Jr., made a 2-week May trip to Japan, Korea, and Taiwan, to review U.S. scientific relations with those countries.

So far, nothing specific seems to have come from the mission but goodwill, although some reassurance was probably needed, since the big agreements with Russia on arms, science, health, environment, and space were in their final stages of preparation at the time. Relating his impressions of his first foray into that part of the world to reporters last week, David said he was "sanguine" about our scientific ties with the Far East. He said that, despite advance reading about the ambitious, thriving country of Japan, one doesn't realize how alive it is until one gets there. "One has the feeling when one goes to these countries that it is a very vigorous environment. It's educationally, technically, and creatively vigorous."

However, David said he saw "nothing miraculous" about Japanese research, although he praised it as "highly competent and admirable." In communications, space technology, jet aircraft, and computers, Japan's research lags behind that of the United States. "The Japanese have been so expert in taking the results of science and technology and making out of them marketable products," he said. This has been particularly true in shipbuilding, optics, steelworking, and some electronics industries.

"We heard the words self-sufficient many times . . .," he said. The problem in Japan is less a technology gap with the United States than a research gap. The Japanese badly need a solid research base of their own, and would like our help. Might the United States use this wish as a card in persuading the Japanese to open more of their markets to American goods, a longtime wish of American businessmen? he was asked. David replied that that might be a "possible strategy."

The group also visited Korea where the United States has aided in developing advanced technology through the Korean Institute of Science and Technology (6 March 1970), and where the Agency for International Development (AID) is very involved with building up R & D. The group also went to Taiwan, where AID no longer plays a role, but where other American advisers participate in several programs. How will David's going to Taiwan help the chances of scientific exchanges between our country and Mainland China? "Science and technology should be participated in by all countries," David replied. "I don't see any help or hindrance to our relationship with China" for continued U.S. advice to Taiwan. "The people in Taiwan seemed to accept that."

Also on the trip were Herman Pollack, Director of International Scientific and Technological Affairs for the Department of State, Ivan L. Bennett, Dean of the Medical School of the New York University, Frederick Seitz, President of Rockefeller University, John R. Pierce, Professor of Engineering at California Institute of Technology, and two members of David's staff at the Office of Science and Technology.

Continuing his global excursions, David plans to go to Moscow within the next month to meet with his Soviet counterparts to discuss the proposed Joint Commission on Science and Technology agreed on during the Nixon summit meeting.—D.S.