News of Science

Variety of Opinions on Department of Science Bill Given by Witnesses during 2-Day Senate Hearings

During Senate hearings on a department of science bill, witnesses testified that such a department is necessary if the federal government is to increase the flow of career scientists into its various scientific agencies. Speakers opposed to the bill held that science would become isolated from public affairs if it were centralized in one department.

These conflicting opinions were expressed last month at hearings held before a Senate subcommittee gathering information on the Department of Science and Technology bill now going through the legislative process of the Congress. The bill, S. 676, would transfer the National Science Foundation, the Atomic Energy Commission, the National Aeronautics and Space Administration, and the National Bureau of Standards, and certain functions of the Smithsonian Institution to a new executive department which would rank equally with the existing departments, such as State, Commerce, and Defense.

Pro and Con

The views of the witnesses ranged from qualified support to full rejection. Alden Emery, who is executive secretary of the American Chemical Society, and Wallace Brode, science adviser to the Secretary of State and retiring president of the board of the AAAS, stressed the point that a department of science would be of great value in drawing career scientists to government. Emery said: "For government research to flourish, it must be able to attract and hold outstanding scientists who will be willing to make government service a lifetime career. Men of this type are most likely to be interested if they can see the possibility of promotion to positions of high responsibility without having to leave the scientific field. Such positions can be provided only by grouping enough scientific activities together to build a sizable organization." Brode, who spoke in his capacity as an officer of the AAAS, said that "recognition of science as a basic entity" in our governmental organization would strengthen the status of career scientists in government.

Opposition to the general idea of a department of science was voiced by a number of witnesses, including A. Hunter Dupree, historian, and Lewis Strauss, Secretary of Commerce. The position of the opponents was that science does not, by its nature, lend itself to centralized organization. Both Dupree and Strauss pointed to the pervasiveness of science. Dupree said that science, as a policy area in the Government, must be compared "not with agriculture or commerce, but with economics or security. It is a pervasive thing, which had, even by the 1880's, penetrated so many different areas of government activity that a joint congressional committee found it impossible to define a separate area for a department of science." Strauss, citing 20 years of work with scientists in government and a period of private research, stated, "I am convinced that science does not lend itself naturally to consolidation or isolation within one organization." Suggesting that a department of science might defeat the aims of those favoring it, the Secretary said that such a department "might well tend to isolate science from the daily conduct of public affairs and thus interfere with the cross-fertilization of ideas and the diffusion of scientific doctrine and method. . . ."

Wide Range of Witnesses

During the 2-day session, the subcommittee members, Hubert Humphrey (D-Minn.), Edmund Muskie (D-Me.), Homer Capehart (R-Ind.), and Ernest Gruening (D-Alaska), heard 11 witnesses from various fields. Representatives of scientific societies and commissions spoke first; they were followed by Secretary Strauss of the Commerce Department, W. O. Baker, of Bell Laboratories; Clare Boothe Luce, sponsor of the first department of science bill ever introduced in Congress; Wallace Brode, science adviser to the Secretary of State; and Dupree.

Need for Study

One suggestion that came up in the testimony of a number of witnesses concerned the need for extended study before any effective form of a department of science bill could be devised. The suggestion was made independently by Emery and by Enoch Needles, president of Engineers Joint Council, when they attempted to deal with the problem of assignment of existing agencies to a department of science. This problem of assignment or transfer of existing agencies to a new "umbrella" department was called the major hurdle before the bill by both Brode and Senator Gruening. An approach to this problem which seemed to have the approval of many witnesses and of the committee members called for the establishment of a study commission. In Brode's words: "Two major decisions are required, one as to whether a department of science should be formed and a second as to the composition of such a department. A commission of governmental and nongovernmental experts in science and nonscience areas, similar to a 'Hoover Commission' type, might consider these problems and especially consider the second phase; if a department of science is inevitable, just what activities of the government should be included?" Admiral Strauss carried this idea one step further by suggesting that the National Academy of Sciences would be the proper agency to set up such a commission.

"Technology" or "Engineering"?

The first matter that came up during the hearings was concerned with terminology. The representatives of the Engineers Joint Council suggested that the word *engineering* is both more meaningful and more appropriate than *technology* and should be used in the event a new department were established. Although Senator Gruening agreed at the time, he, with the other committee members, continued to use the noncommittal "department of science" as the hearings went on into the second day.

Another witness, Howard Meyerhoff, executive secretary of the Scientific Manpower Commission, drew expressions of concern from the subcommittee members when he said that the Office of Civil and Defense Mobilization was the only governmental body having official responsibility for over-all manpower policy. As against this situation, he recommended that "a department of science and engineering, if created, should make the manpower to implement technology the backbone of its structure." Senator Humphrey, who presided over the hearings, agreed, saying that basic problems, such as manpower, are often ignored by missile-conscious legislators.

Passage Not Imminent

Passage of a department of science bill is not imminent—a point which the

members of the subcommittee stressed during the hearings. As Senator Gruening said, "The only way we can get these opinions effectively is to have a bill. It is just like trying to get an opinion from the Supreme Court. You cannot go up and ask for it, but if you have a case in court it ultimately gets there, and then you find out what the Supreme Court thinks on the subject."

Future Hearings

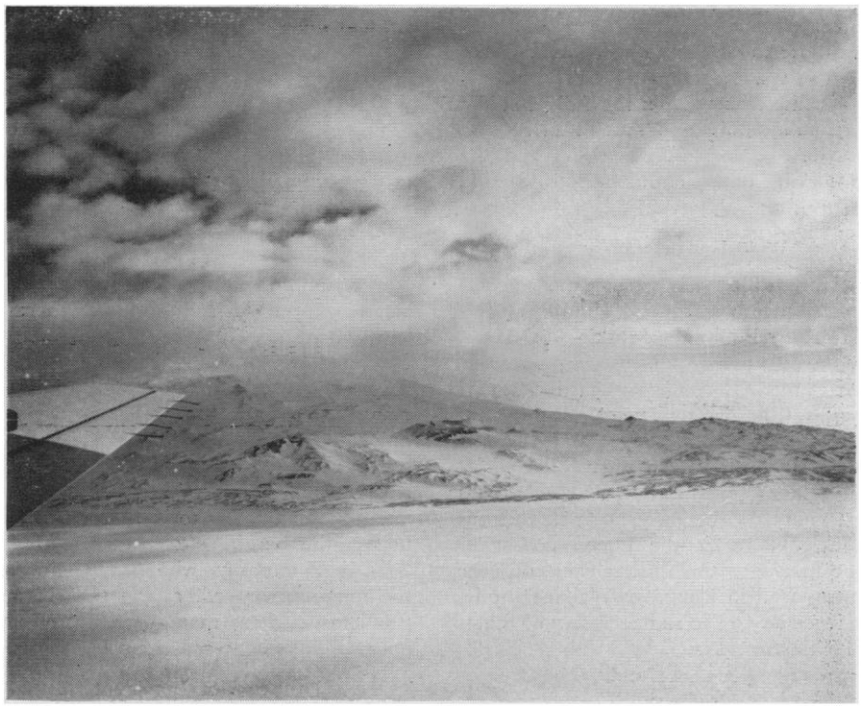
At the end of the morning sessions on 17 April, Senator Gruening said that the subcommittee would reconvene that afternoon. However, other obligations of the members interfered, and the hearings were adjourned. Additional sessions are expected to take place sometime in May. Before recess, Gruening said that the committee had received letters from many persons indicating their desire to testify. Testimony from this group, which includes Lloyd V. Berkner, Leonard Carmichael, of the Smithsonian Institution, and Vannevar Bush, will probably be heard during the coming sessions.

Antarctic Mountain Range Located

A United States research team has found and measured a range of antarctic mountains whose location had been in question for 20 years. The mountains, the Executive Committee Range, were first sighted during the 1939–40 U.S. Antarctic Service Expedition in the course of a flight from Little America III. Four peaks were reported, but neither the location nor the heights could be determined. A second sighting occurred in 1947, when two Navy aircraft observers taking part in Operation Highjump reported two new peaks, one believed to be 20,000 feet high.

For a decade there was no further opportunity to investigate the range. Then a team participating in the National Science Foundation's United States Antarctic Research Program reported positive location of the mountains after a 3-week, 500-mile oversnow traverse that ended this past March. The expedition was led by John Pirrit of Glasgow, Scotland, station scientific leader at Byrd Station and glaciological project leader for the 1959 Antarctic Program.

The smallest of the ten peaks in the range is 7144 feet high—about 500 feet higher than Mount Mitchell in the Great Smokies, the highest U.S. mountain east of the Rockies. The largest peak of the antarctic range is 13,856 feet high, some 600 feet lower than Mount Rainier in Washington. The range runs north and south for about 60 miles, between 76°20′ and 77°20′S. Preliminary geological investigation shows the mountains to be volcanic and about nine-tenths covered by snow and glaciers. Alpine-type glaciers flow down from the peaks to join the vast ice sheet of Marie Byrd Land. Glaciation has modified the mountain craters. Further studies will be made next October by a seven-man party.



Peak G-3, a 10,920-foot mountain in the newly located Executive Committee Range in the Antarctic. [Courtesy U.S. Navy]

Strengthening Basic Research

Leaders in science, government, education, and industry will study ways in which basic research in the United States can be strengthened, during a Symposium on Basic Research that will take place at the Rockefeller Institute in New York, 14–16 May. The meeting is being held under the joint auspices of the National Academy of Sciences, the American Association for the Advancement of Science, and the Alfred P. Sloan Foundation. President Eisenhower will address a dinner session on 14 May. Other speakers that evening will be James R. Killian, Jr., special assistant to the President for science and technology, and Alfred P. Sloan, Jr., president of the Sloan Foundation.

Grave Concern Expressed

In announcing the program, Warren Weaver, vice president for the natural and medical sciences of the Rockefeller Foundation and chairman of the Arrangements Committee of the symposium, said:

"Our country is literally pouring money and manpower into applied research and development. Many scientists, however, are concerned because we do *not* furnish, either in amount or kind, proper support for *basic research*. It is imaginative and free basic research that is principally responsible for furnishing new knowledge. And it is new knowledge that will make our country strong and our culture rich and satisfying.

"It is the purpose of this 'Symposium on Basic Research' to set forth and examine with candor the facts concerning the support of basic research in our country, to inquire realistically what are the blocks which prevent our doing what we all say we believe is important, to make concrete suggestions as to ways in which the situation can be improved and in general to proclaim the fundamental faith which we have in the importance of free and imaginative basic research."

Participation

In order to be sure that the symposium would be geographically representative and also widely representative of the fields of science and of the institutions that support basic research, it was decided that participation would be by invitation only.

Among those who will take part will be Detlev W. Bronk, president of the National Academy of Sciences and of the Rockefeller Institute; Paul E. Klopsteg, AAAS president; and George W. Beadle of California Institute of Technology, 1958 Nobel Prize winner in medicine and physiology. Others include Alan T. Waterman, director of the National Science Foundation and a member of the