director during the first 12 years of its life, Waterman headed an organization that came into existence after a long and bruising congressional fight that produced serious rifts between important elements of the scientific community. On the political side he had to contend with a great deal of know-nothing suspicion of science, while allaying scientists' fears that the Foundation would use its great resources to dictate the direction of American basic research. All this took place at a time when cold war pressures induced Congress to employ the Foundation as a channel for promoting research (the budget rose from $3.5 million at the start to $322 million last year). But throughout, Congress was looking hard over Waterman's shoulder, and there is little wonder that, in this atmosphere, he drew the decision-making process into his own office.

Even top-level subordinates tended to occupy the roles of advisers to the director rather than administrators of the Foundation's programs, and on many major NSF projects, such as Mohole, seemingly routine matters were regularly scrutinized by the director. These practices often resulted in delays and the appearance of indecisiveness at the lower echelons, but while some parts of the scientific community writhed, the fact is that the essential job of winning confidence in Congress was accomplished—simply because Waterman was on top of every detail of NSF operations.

Haworth's loosening of the reins has been accomplished, first of all, by reviving the post of deputy director, which had been vacant since 1957. To fill this position, he appointed John T. Wilson, who became assistant to the president of the University of Chicago in 1961 after serving for 6 years as assistant director of NSF's division of biological and medical services. In addition, Haworth has elevated the office dealing with scientific personnel and education, making its head, Bowen C. Dees, an associate, rather than an assistant, director. At the same time, the associate director for research, Randal N. Robertson, was given responsibility for NSF's four national research centers and at least temporary responsibility for the management of the Mohole project. (A final decision on Mohole will be made after receipt of a study now underway on the management of the controversial deep-sea drilling project. The study, which is headed by Emanuel R. Piore, I.B.M. vice president for research and engineering, is expected to be completed next month. Meanwhile, the Houston engineering firm of Brown and Root, which is contractor for the project, is continuing its design work, after a brief freeze of funds by the Bureau of the Budget. The Bureau is permitting expenditures of up to $2 million for design, but no hardware is to be purchased until the review is completed.) Finally, Haworth has made a number of other changes, mostly of a housekeeping nature but all designed to pinpoint responsibility and authority and to push both down to the lower levels of the organization.

In connection with this, he wrote a memorandum setting forth his concept of the division of duties in operating the Foundation. For those scientists and administrators who will be dealing with the Foundation, the Haworth concept would seem to hold forth the prospects of frank and uncumbersome relations.

"I believe," Haworth stated, "that it is good practice to delegate, to the greatest extent possible, authority and responsibility for operational decisions and actions. It has been my experience that decisions are best made by those who know most intimately the details of the problem, with due respect paid to established operating policy. This assumes that the individuals who are directing the programs of the Foundation will understand and operate within established policies. It further assumes that they will refer decisions involving deviations from established policies or matters of unusual significance or complexity to an appropriate reviewing unit within the Foundation. In this connection, I consider it desirable to discuss such matters at an early stage when flexibility is possible, rather than to wait and make a rigid proposal for approval or disapproval by higher authority. If all of us conscientiously follow these general principles and boundary conditions in the day-to-day operations of the Foundation, the Foundation, in turn, will meet its obligations to the scientific community and to the country as a whole."

Besides taking steps affecting the inside of NSF, Haworth has looked to the Foundation's external relationships. One of his first official calls was on Representative Albert Thomas, the Texas Democrat who chairs the appropriations subcommittee which passes on NSF's funds. In the past Thomas has talked critically but has responded rather generously to NSF's requests for funds. But this year his goodwill is of critical importance, for under proposals initiated by Waterman, the Foundation is seeking a budget increase from $322 million to $589 million, and it is hoping to undertake a number of new programs that would bring it into new areas of support for science. First of all, it is seeking $25 million to establish its first trainee program, part of an overall Kennedy Administration program for a large-scale expansion of graduate science and engineering training; and then, NSF is seeking $33 million for a "science development program" designed to promote the development of "centers of excellence" for graduate training. At the moment, neither house of Congress has completed action on these requests, and, as a result, NSF isn't risking the possibility of raising false hopes by releasing many details. But if the science development program wins congressional approval, it would represent a new and highly significant step in NSF's support for the sciences. For, under the program, existing institutions that show promise but lack support would receive funds that could be used, with few restrictions, for anything from new buildings to faculty salaries. The funds would be allotted for from 3 to 5 years, after which the institution would be on its own. Congress is extremely wary of appropriating money for such across-the-board purposes, and if Haworth fails to sell the legislators on the need for support of this type, he will at least be in distinguished company.—D. S. GREENBERG

Wiesner Hospitalized after Massachusetts Boating Mishap

Jerome B. Wiesner, the president's science adviser, was hospitalized with pneumonitis this week after his sailboat capsized, on 5 September, and left him in the water for 45 minutes near Martha's Vineyard, Massachusetts.

At the time of his rescue, Wiesner was in a state of shock and under the impression that his 10-year-old son, Joshua, who had been sailing with him in the small homemade craft, had drowned. The boy was later brought in by a boat which picked him up while he was attempting to swim to shore. Weisner, who is 48, was hospitalized at Otis Air Force Base, where he was reported recovering and in satisfactory condition. His son did not require hospitalization.