fairly soon be equipped to do this sort of monitoring. Along with the more sophisticated satellites, coming years will see the deployment of other observational devices such as constant-level balloons, oceanographic buoys, and automatic weather stations.

Prospects of a radically improved observational network, the means for taking a synoptic look at the world's weather, are bringing meteorologists and atmospheric scientists closer together. A century ago, those active in meteorology were concerned mainly with theory. As techniques for forecasting improved and the demand for forecasts increased, a split occurred. Meteorologists clustered in the government weather services and researchers gathered mainly in the universities, and, while it should not be exaggerated, a service-versus-science conflict developed. In the United States, the Weather Bureau over the years provided only a part of the funds for research in atmospheric science; the military services, NSF, and, lately, NASA provided a larger total. The phenomenon has not been limited to the U.S.; in the Soviet Union there has been a stiffness in relations between the Soviet Academy and the hydrometeorology ministry. In the United States, recent creation of the Environmental Science Services Administration (ESSA) has symbolized a trend toward reunion. In practical fact, scientists can't carry on research on a global scale without a working WWW, and the meteorologists need the scientists in order to make the theoretical most of WWW data.

For WMO the logical step was to seek a closer relationship with its U.N. sibling, the International Council of Scientific Unions, and particularly with the ICSU member organization, the International Union of Geodesy and Geophysics. This was done, and if things go according to plan, the research part of the WWW will be organized jointly by WMO and ICSU. A draft agreement between the two organizations was approved by the WMO congress and will be put before ICSU at its big meeting later in the year. A joint committee with members drawn from WMO and ICSU will recommend to the parent organizations goals and detailed plans for a WWW scientific program and will define requirements for implementing the plans. The joint undertaking is known as the Global Atmospheric Research Program (GARP), and the planners are looking beyond 1972 to a time when it will be

NIH: Lister Hill Criticizes LBJ Budget

The Senate Appropriations Committee is in the process of taking testimony on the budget for the National Institutes of Health, and, while it will be several weeks before the final figure for medical research is set, NIH and its friends are looking toward Senator Lister Hill (D–Ala.) in the hope that he may be able to improve their prospects.

It is a role that Hill traditionally shared with the late John Fogarty, his counterpart on the appropriations committee in the House. With Fogarty's death, however, one half of the tandem is gone. The House unit, influenced by the expense of the war and affected by the presence of newcomers who entered the subcommittee after the last election, has already voted to stay within the administration's figure of $1,187,250,000 (*Science*, 26 May). So Hill has his work cut out for him, and, while he is a sensitive politician who is apt to take his stand on the politically possible, it is of interest to note that he has recently stepped up his public criticism of the administration's requests.

Speaking on 9 June at commencement exercises at Baylor University Medical School, where he received an honorary degree, Hill defended NIH against "irresponsible charges" that its appropriations in the past have been too high. "In our federal research effort we have sometimes been criticized as having 'money to burn,'" Hill said.

> The truth of the matter is that over the past several years the National Institutes of Health has turned down more than one half of all research investigators coming to it for support. Furthermore, of those applications which are *scientifically approved* for payment by a rigid double review system, millions of dollars in potential grants are not funded each year because NIH lacks the necessary funds.
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> One reason is that federal matching support for medical research and laboratory facilities construction has been seriously curtailed by severe Administration cuts in the program. In 1965, the Congress by an overwhelming vote authorized $280 million over a three year period in support of this activity. Last year the Administration requested only $15 million for the first year of this new authorization; the Congress, after a fierce and arduous effort, raised this sum to $50 million. This year the President recommended only $35 million for this program, and we in Congress have our work cut out for us in attempting to increase this figure to meet a current backlog of $75 million in *scientifically approved* applications for which the matching monies, raised under the most trying circumstances by medical schools and universities in all parts of this land, are already available.

Hill also expressed concern about the inadequacy of the administration's programs for increasing the supply of physicians. He quoted figures indicating that the number of doctors will need to be increased by 50 percent by 1975 and that medical schools will need to increase yearly graduates from the current level of 7500 to about 11,000 during that period. He commented:

> Frankly, we are falling short of these goals. Here, too, the Administration has submitted budget requests to the Congress far short of the authorizations voted in the landmark 1963 and 1965 medical education legislation. In official testimony this year, the Director of the PHS Bureau of Health Manpower estimated that an additional $400 million would be needed over Administration requests to meet matching monies already raised or projected by public and private medical schools for expansion of enrollment.

Not far beneath that criticism lies Hill's conviction that anyone who disagrees with him about the importance of medical research must do so out of ignorance of its beneficial results. Hill has lived with its success stories year after year and is deeply touched by them. "Perhaps," he speculated, "the reason those who oppose acceleration of our medical research efforts, of our battle for the health of our people, persist in being so readily heard is that we are not doing a good enough job in telling the story of our achievements, of our record, of our partnership." To Hill, the case is clear, and he ended by reminding his audience—and, implicitly, NIH—that they have a job to do in making it clear to others as well.—E.L.