developed to the full, will not go beyond 'terrestrial limits.' If we arrive at establishing interplanetary communications we must revise all our philosophical, social, and moral conceptions. In that case the technical potentials, having become unlimited, will impose upon us the end of violence as a means and method of progress."

House Committee Questions Adequacy of Manpower Roster

In a report last month, the House Science and Astronautics Committee, headed by Overton Brooks (D.–La.), expressed reservations about the completeness and currency of the National Science Foundation's Register of Scientific and Technical Personnel. In criticizing the register, the report cited NSF studies that estimated that there are approximately 300,000 persons in the United States who would qualify under a generally acceptable definition of the term *scientist*. The committee juxtaposed this figure to the 170,000 the register now lists. Questions were also raised about the value of dated information on individuals whose profession is characterized by frequent changes of place of employment and field of investigation. Unable to decide whether the register was receiving sufficient support and planning, the committee asked the Science Foundation to report to it next January.

Answers to the committee's questions are currently being worked up for the NSF report in January. The foundation's position is that "very considerable progress" has been made in the register program. In testimony given during the last sessions of the hearings, NSF spokesmen cited the doubling of funds allotted for the program by the foundation for fiscal years 1959 and 1960. New and larger quarters have been acquired for the Records Center in Raleigh, and additional tabulating and microfilming equipment has been installed. Studies are under way on the problem of speeding up the processing of data as they arrive.

A simpler questionnaire is being prepared and plans are being developed to make the register better known and to make its data more readily available to participating scientists through professional societies.

Although the House committee and the Science Foundation have disagreed on some matters of interpretation concerning the register, the basic attitude is one of cooperation. The committee is aware of the difficulties that the register faces, some of which stem from the way Congress itself operates. For example, the House Committee on Science and Astronautics may want the register expanded, but it does not follow that the House Committee on Appropriations will give the Science Foundation the necessary funds. As Chairman Brooks himself noted, at the very time the spring hearings on NSF's division of scientific manpower and education were being conducted, the House Committee on Appropriations recommended a cut—later restored—in funds for the unit.

Radio Frequencies for Research Studied at Geneva

The allocation of radio frequencies for research in space is one of the major issues now before a 3-month-long conference of the International Telecommunications Union at Geneva. Radio astronomy and space communications, two fields that have expanded greatly since the last ITU conference in 1947, are the particular subjects of study of the 708 delegates at the conference, which began 17 August and will continue until 17 December. The ITU, a U.N. organization through which countries regulate international telecommunications, is using the long session to overhaul the regulations drawn up in 1947. Rapid technological change in recent years and the opening of new fields of communication led to the current sessions.

On the opening date of the conference, the United States delegation presented its position on the problem of frequencies for radio astronomy. After citing the increasing value of the new science's findings, the U.S. group proposed that a world-wide allocation to radio astronomy be made of the frequency band 1400 to 1427 megacycles per second (Mcy/sec). This band, also called the interstellar hydrogen line band, is the major one used in radio astronomy. Another proposal, put forth by the Netherlands delegation, specified a range from 1399 to 1427 Mcy/sec. Virtual agreement among the conferees is reported on the protection of a band at least as wide as that in the U.S. proposal. The U.S. paper also cited measures taken to afford national protection to radio astronomy observatories in this country.

In another action, the U.S. delegation proposed that six frequencies be set aside for space communications. These communications would be between the earth and satellites, and between satellite and satellite. The frequencies, which would be used for tracking, guidance, and telemetering of data, are: 1700 to 1725, 1825 to 1850, 2275 to 2300, 8300 to 8400, 15,150 to 15,250, and 31,500 to 31,800 Mcy/sec.

Some Opposition

The assignment of radio frequencies for research is not an easy matter, according to reports on the conference. Many conflicts come up that require extended negotiation. In the assignment of frequencies for space communication, for example, some opposition was registered by the delegation from the Soviet Union on the grounds that such allocations at this time would be premature. Pressure from the other delegations moved the Russian group to ask for more time to study the proposals. A number of organizations, particularly military and commercial users, object to the assignment of frequencies for research because the bands might be needed in the future for nonresearch uses. Conference proceedings are aided, however, by a considerable body of accepted practice that has accumulated during the years the ITU has been in existence. Because of this common body of accepted practice, the Union, which was formed by the merger of two of the oldest inter-governmental organizations in the world, generally manages to resolve the conflicts that arise.

Health Research Grant Practices Held Satisfactory

Large increases of funds for the National Institutes of Health will not result in a lowering of the quality of the research projects supported by NIH, spokesmen at the Bethesda, Md., facilities report. The review process for grant requests, and the growing volume of requests for funds for medical research, officials say, assure that the new funds will be used wisely.

Last August, President Eisenhower expressed some concern on this point when he signed the appropriations bill for the Department of Health, Education, and Welfare under which NIH