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

operates. Although his dissatisfaction was not sufficient to make him veto the bill, which increased NIH's funds from $294 to $400 million, he did indicate that he had reservations about the wisdom of a 36 percent increase in funds for a single year. His first concern was that the large increase should "lower the quality of the projects supported by increasing the flow of grant applications more rapidly than the procedures for their careful appraisal can be effectively adapted." He directed the Secretary of Health, Education, and Welfare and the Surgeon General to take appropriate steps to assure themselves that any new research projects be of "high priority and great promise." The President's reservations and his directives to the officials of the department turned the spotlight squarely on the procedures of evaluation that now exist in NIH. Are they adequate now? Will they be changed or expanded?

The NIH grant evaluation process, with its commentary on individual grant requests by study sections, rating of them by advisory councils, and approval by the Surgeon General of as many of the highest-rated projects as the money allows, has been in operation since 1946 when it was devised by C. J. Van Slyke, now Deputy Director of the Institutes. In the opinion of NIH spokesmen, the system has informally been doing the job that the President formally directed the officials of the Department of Health, Education, and Welfare to do in his statement when he signed the appropriations bill. The effect of the growing appropriations for NIH, spokesmen say, is that the Surgeon General's office will be able to go lower in the stack of grant requests. But, because of the very large number of the grant applications and the stringency of the review process, NIH officials feel, standards will not suffer and the new money will go to research projects that will add significantly to the public health.

Congress Leaves Conservation Issues for Next Year

Members of the 86th Congress brought their first session to an adjournment on 15 September and left most of the important conservation legislative issues for the second session that will begin in January. The National Wildlife Federation reports that, although the session did not result in any outstanding conservation accomplishments, several measures were brought along to points where final action may be expected early next year.

Among the major conservation bills under consideration, that strengthening the Federal Water Pollution Control Act probably made the most progress. This measure to protect streams from raw sewage pollution (H.R. 3610) was sponsored by Representative John A. Blatnik (Minn.). It passed the House, 255 to 143, and won approval in the Senate by a 61-to-27 margin. The House version of the bill, however, would increase the program of grants for the construction of municipal sewage treatment works from $50 million to $100 million annually for 10 years, while the Senate voted only $80 million. Differences in the measures were being considered in a Senate-House conference committee at adjournment time, and the compromise version probably will be among the first sent to the President next year.

Soil Bank and Pesticide Awards

After lengthy discussion, Congress granted $375 million—the same amount as last year—for the Conservation Reserve Soil Bank program, a program for reducing surplus agricultural production. Under the Soil Bank, farmers lease land to the Federal Government, which uses it for wildlife preserves or other purposes. Last year 23 million acres were retired under this plan at a cost of $375 million. If this land had been planted, it would have cost the government $600 million just to store the surplus produced. An even greater controversy over the Soil Bank can be expected in the next session, for the act authorizing the program expires at the end of the 1960 calendar year and must be extended if the plan is to continue. Measures to extend the authorization have been introduced but have not yet received serious consideration.

Congress also approved S. 1575 authorizing the expansion of the Fish and Wildlife Service research program into the effects of pesticides on fish and wildlife. The measure, which contains a maximum authorization of $2,565,000 per year, was signed by the President on 16 September. Efforts by conservationists to knock out the $2.4 million Department of Agriculture appropriation for fire ant "eradication" failed, however. This program has a serious detrimental effect on fish and wildlife, and other organisms.

Other Measures Held Over

One of the few major conservation measures not involved in budgetary considerations—the Wilderness Bill to preserve public lands (S. 1123)—was included in the legislation held over until the second session. Although it has not yet been voted on by committees in either the Senate or the House, much groundwork was laid toward working objections out of the bill and in holding extensive field hearings. Action by the Senate Committee on Interior and Insular affairs is expected early next year.

Among other measures to be held over into the second session are: S. 812, to establish a Youth Conservation Corps, which has passed the Senate; S. 1262, to authorize large impoundment fisheries research, which has passed the Senate; H.R. 2565, the Sikes Bill to authorize fish and game programs on federal military reservations, which has been reported by the House Merchant Marine and Fisheries Committee; H.R. 7045, to establish the huge Arctic Wildlife Range in Alaska, also reported by the House Merchant Marine and Fisheries Committee; and S. 2086, to establish a wildlife disease laboratory, which has been reported from the Senate Interstate and Foreign Commerce Committee.

National Medical Library Interlibrary Loan Program

It is now 2 years since the new interlibrary loan policy of the National Library of Medicine went into effect. During fiscal year 1959 the National Library of Medicine filled over 6000 interlibrary loan requests each month, and there are many indications that the volume of business will continue in a steady rise.

Two-thirds of all interlibrary loan requests received at the National Library are now being completed within 5 working days. A major objective of the program has been attained in that the percentage of publications "unavailable by reason of being already on loan" has dropped from 33 percent in 1957 to 18 percent in 1958 and to 12 percent in 1959.

The proportion of interlibrary loans being furnished to foreign libraries (one request out of every seven) has remained about the same this year as last. The number of such loans amounted to 10,000 in 1959, leading to speculation as to whether the various national facilities are being fully exploited.

Copies of a revision of the National Library of Medicine's interlibrary loan rules may be obtained on request.