

## EXCHANGE OF SCIENTIFIC INFORMATION

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During the year, activities in the exchange of scientific information included a number of inquiries into various problem areas, limited support of scientific publication and the dissemination of scientific information, and continuation of the program to encourage attendance of American scientists at international scientific meetings. An Advisory Panel on Scientific Information was established by the Foundation with the first meeting scheduled for October 1953.

### INFORMATION PROBLEMS

Since the war an increasingly significant body of information has appeared in scientific and technical reports submitted by recipients of Federal support for research and development. Normally, such reports are available only to scientists and other persons associated with Government-sponsored research projects.

When research is classified for security reasons, no other system of dissemination of scientific information appears practicable. Any limitation upon distribution of information can be detrimental to scientific progress, however, in the case of unclassified research, where the widest possible dissemination is desirable. During the year the Foundation undertook a small-scale study to learn whether the amount of information thus buried represents an appreciable problem.

Authors of 95 unclassified reports submitted to defense agencies were asked if the information contained in the reports had been published in the open literature. If so, bibliographical references were requested. Of the 83 replies received, 33 indicated reports had been published in full, 13 partially published, 13 either in press or in preparation for publication, and 5 listed as easily available to the public in other forms. Information in 19 reports had not been and apparently will not be published. These papers were evaluated and only 1 of the 19 seemed to be of sufficient general interest to warrant publication.

These preliminary results suggest strongly that the most important information in unclassified research reports does reach scientists through established publication channels. If further investigation bears out these

findings, it may be possible to modify present procedures for distributing Government reports at considerable savings in effort and cost.

At the request of the Armed Services Technical Information Agency and the Office of Technical Services, Department of Commerce, the Foundation is currently reviewing the present program for getting research and development information from defense projects to scientists, particularly those in industrial laboratories. The present program provides for public distribution of only about 30 percent of the 12,000 reports annually produced in this area. An attempt is being made to evaluate the remaining 70 percent to determine their potential value to science and industry.

#### SCIENTIFIC PERIODICALS

The scientific journals are, of course, the principal media for exchange of scientific information and the primary reference tools both for research and education in the sciences. The number of scientific journals published in the world is in the tens of thousands. The individual scientist depends to a large extent upon abstracting services for wide coverage of the literature in his field of interest, but such services face formidable difficulties in keeping track of new and discontinued publications and publications in other countries, even where no political or security barriers are erected to limit the flow of information.

To assist in this situation a project at the Library of Congress has been supported for the compilation of current lists of scientific periodicals published in the United States and the Soviet Union. They will be published and made available to scientists and scientific services having need for the information. The list for the United States, now being edited for publication, includes some 8,000 periodicals and other scientific and technical serial titles.

#### DISSEMINATION OF INFORMATION ORIGINATING ABROAD

During the year, the Russian science group at Columbia University received support for compilation of a preliminary edition of a *Russian-English Dictionary of Metallurgical Terms*. Copies were distributed to Federal agencies and a limited number of private individuals working in the field. These persons were asked to submit corrections and suggested revisions which will be needed in preparing a final version.

The Columbia group has also undertaken to translate approximately 1,000 pages of current Russian research reports in physics over the next

year. Limited numbers of the completed translations are printed at the facilities maintained at Oak Ridge, Tenn., by the United States Atomic Energy Commission. Copies are distributed to Federal agencies interested in the material and to some 40 depository libraries throughout the country. The translations may also be purchased for a nominal charge at the Office of Technical Services, Department of Commerce.

In the course of preparing translations the Columbia group is compiling files of new or unusual Russian terms in physics and related sciences as the basis for an improved Russian-English glossary of terms in the physical sciences.

#### TRANSLATIONS CENTER

A center for holding and photoduplicating foreign scientific translations has been established by the Foundation in the Science Division of the Library of Congress. Partial support for the project has been contributed by the Atomic Energy Commission.

Scientific translations for the center are being collected from many sources, including Government agencies, scientific societies, industrial laboratories, and universities. Initially, the center has put major emphasis upon translations from Russian scientific journals, although it is hoped eventually to add material from other languages for more comprehensive coverage of the world's scientific literature. Monthly lists of translations issued by the center include notices of translations that are available by direct purchase from commercial translating services, but the center will not supply photocopies of such material. The new service has attracted widespread interest, particularly among Federal agencies and industrial concerns.

#### AMERICAN SCIENTISTS ATTENDING MEETINGS ABROAD

During the year the Foundation provided assistance to 54 American scientists, which enabled them to attend important scientific meetings abroad. This program fosters the exchange of scientific information for the mutual benefit of all participating nations and provides United States scientists with direct contact with foreign research activities and personnel. The benefits from attendance at these meetings accrue to this country not only in terms of the increased competence of our scientists, but also in terms of the international good will, both scientific and cultural, which is created.

Applications are evaluated and travel grants awarded on the basis of the scientific competence of the applicant, the nature of the meeting to be attended, and the potential benefits which will accrue to the scientist, his sponsoring institution, and the meeting as a result of his attendance.