

to the National Academy of Sciences, also in 1929, indicates something of the fiber of the man.

Perhaps his determination to overcome obstacles would not have been so effective if he had not had another trait of great importance to a scholar, particularly to one interested in experimental physics. His imagination was very active,

so lively that he often felt that it should be held in check. He had acquired by himself the usual mathematical equipment, through the calculus, but he frequently wished that his training in analysis had been more extended. However, his innate curiosity and his own way of looking at things made up to a considerable degree for any deficiency.

He may have been impatient at times, even abrupt on occasion, yet students and friends found him generous and stimulating. With all his cares, Bergen Davis nevertheless showed a ready sense of humor and a passion for freedom of thought.

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News of Science

Visiting Research Scientist Program Brings Top Foreign Postdoctoral Scientists to U.S.

Approximately 150 young foreign scientists, all drawn from the highest levels of scientific activity in their respective countries, have begun arriving in the United States for periods of study ranging from 1 to 2 years. The visiting researchers, who come to this country under a program initiated and funded by the International Cooperation Administration, are placed in the proper university and government laboratories by the National Academy of Sciences, which administers the program.

As originally conceived in 1953, the Visiting Research Scientist Program was restricted to the 14 European countries which were members of the Organization for European Economic Cooperation. At that time the program was also viewed as a temporary one, designed to facilitate the flow of scientific and technological information between the United States and the OEEC member countries.

Continuation and Expansion

At the time that the original program, with its limited geographical and temporal ranges, was drawing to an end, the post of director of the International Cooperation Administration was assumed by James H. Smith, Jr., a former assistant secretary of Navy. Smith, feeling that the program, which had been well received in Europe, should not be ended, asked the president of the National Academy of Sciences, Detlev W. Bronk, to consider its continuation and expansion. In making this decision the ICA director had in mind the need to offset the stress put on the purely military applications of science and technology by the accom-

plishments of the Russian satellite program, the need to improve communication and cooperation between American and foreign scientists, and the need of this country's scientists for the particular abilities and knowledge of many foreign researchers.

Role of the Academy

After the decision to continue and expand the Visiting Research Scientist Program, the National Academy of Sciences, through its Office of Scientific Personnel, began the work necessary to its administration. The original European program had had as a basic policy an arrangement whereby the selection of candidates rested entirely in the hands of the major scientific body, whether academy of science, research council, or the equivalent, in each of the 14 countries concerned. The memberships of these groups would nominate candidates of high qualification that were known to them as the best young scientific talent their country could call upon. These candidates were then accepted by the National Academy of Sciences in a number commensurate with the funds available from ICA. Almost all nominees who could, on practical grounds, avail themselves of the opportunity did in fact come to this country. This equation of the number of nominees to the number of grants reflects the fact that there is no plethora of researchers with the high qualifications required by the program.

The selection policy used in the original phase of the program has been maintained in the new phase. But, whereas the European countries all had an established scientific body which could administer the nomination process, many of the nations in the expanded program, which now includes approximately 44

separate states, did not have such well defined scientific associations. To solve this problem five members of the academy made numerous trips to arrange for local sponsorship of the program. Where no established organization was available, arrangements were made with the universities to nominate qualified persons. Again, as in Europe, the program was well received, and the men and women now arriving in this country are evidence of its success.

Students

To date, since the inception of the program in 1954, about 225 foreign students have studied in the United States. To this number, the 150 now arriving must be added. Their main common characteristic, which was essential to their selection by their respective nominating groups, is their demonstrated ability to carry on their own research projects. They come from the universities, the government scientific facilities, and in a few cases the industrial laboratories of their home countries. Almost all of them have an assured position to which they can return after their study period here. Although the program was primarily set up with a 1-year duration for each grant, most of the grantees avail themselves of the 1-year extension possibility that is offered. By the fact that almost every nominee has received his doctorate before coming to this country, and has, therefore, most usually, acquired a working knowledge of one or two foreign languages, language difficulties are not a major problem. In addition to the initial help and orientation they receive from the members of the academy's staff, the visiting researchers can count on the general hospitality of the Americans they encounter and the particular help and friendship of their colleagues at the universities and laboratories in which they do their research.

The grant from the ICA covers travel expenses for the nominee and his family, and gives a per diem allowance of \$10.50, with an additional \$1 per day allowed for each member of the family. The research projects undertaken are of such a nature that they do not follow the normal academic year but rather constitute a full year's or two years' work.

Function and Future

M. H. Trytten, director of the academy's Office of Scientific Personnel, has written on the function and future of the program: "Originally the program was deemed to be desirable as a contribution to the European area by acquainting young scientists with American practice in the relationship between academic and industrial research. While the program no doubt contributed to this objective, other worthwhile objectives have been attained which seem of considerable importance in respect to the worldwide program.

"The strengthening of the scientific activities of the free world is important per se. Intimate relationships between American scientists and the leading scientists of the future in these many countries can be of great significance. As before these young scientists contribute much to American science while guests in American laboratories. Finally, the direct cooperation between the organizations of scientists abroad and the Academy-Research Council offers a means of strengthening relationships which could lead to other fruitful cooperative activities. Aside from these benefits, there is the deeper question of the responsibility the nations leading in scientific competence have to assist in the development of indigenous scientific movements in nations less advanced. The burning desire for self-betterment and improved conditions which is so evident in these countries finds its focus in most instances in an urge to improve education and in particular to improve technology. Consequently it would appear to be of major importance to assist in strengthening the educational programs with special emphasis on scientific education. The needs are, of course, great. Not only is assistance needed in the basic sciences, but in the fields of public health, sanitation, natural resources, conservation, and in applied science for industry. The latent human resources in most of these countries are enormous.

"No firm plans for continuation of this program have been made as yet, since continued support by ICA depends on the budget support available. However, there seems to be continued enthusiasm for this type of program, and it would seem probable that a continued effort of this kind would be supported."

Soviet Research Ship Visits U.S.

The first visit of a Soviet scientific vessel to the continental United States during the International Geophysical Year occurred on 17 December, when the *Vityaz* arrived at San Francisco. Representatives of the National Academy of Sciences greeted the Soviet scientists and

crew, who have been engaged in oceanographic studies in the Pacific as part of the IGY program.

During its IGY voyages, the *Vityaz* sounded a record depth in the Pacific of 35,948 feet, off the Philippines in August 1957; discovered a 20,340-foot depression in the ocean floor north of the New Hebrides Islands; and brought to the surface from depths of 35,000 feet several previously unknown species of sea animals.

Scientists who visited the ship when it docked at Vancouver, B.C., in November report that it is extremely well equipped for a variety of oceanographic work. Approximately 65 scientists and a crew of about the same number are on board, including about 35 women. Chief of its scientific party is Nikolai Sysoev, whom many U.S. scientists met in Moscow last August at the Fifth General Assembly of the World IGY Committee.

The Soviet Government indicated in advance that the *Vityaz* would be open to visit by American scientists and other interested persons while she was in San Francisco, and later in Honolulu, and that arrangements for such visits should be made with the ship's authorities after her arrival. The National Academy of Sciences' IGY Committee asked John Lyman, a member of the US-IGY Committee's panel on oceanography, to make arrangements for these visits and for visits by the Soviet scientists to American scientific research facilities and institutions. Scientists from the University of California at Berkeley, the Scripps Institution of Oceanography at La Jolla, the U.S. Navy Hydrographic Office, the U.S. Coast and Geodetic Survey, and representatives of other interested institutions went on board the vessel.

The *Vityaz* is one of 13 Soviet ships participating in the IGY oceanography program, nine of them being primarily research vessels. Including the U.S.S.R., 25 nations are engaged in IGY oceanographic work, using a total of approximately 70 vessels. Of these, United States institutions account for eight.

Technical Translations

The Department of Commerce will begin publication this month of a periodical planned to serve as a central source of information in the United States on Russian and other technical translations available to science and industry. The periodical, *Technical Translations*, will be published twice a month by the Office of Technical Services, in cooperation with the Special Libraries Association. It will list and abstract translated material available from U.S. Government sources, SLA, cooperating foreign governments, educational insti-

tutions, and private sources. The Special Libraries Association's *Translation Monthly*, familiar to all who have been working with translations, will be incorporated in *Technical Translations*.

Most of the foreign material that OTS is collecting from government agencies has not been previously available to the public, and the volume from this source alone is expected to run as high as 10,000 complete translations a year. Abstracts of this material will begin appearing in the new journal immediately. *Technical Translations* will be sold by OTS at \$12 a year (\$4 additional for foreign mailing); single copy, 60 cents. Orders should be addressed to OTS, U.S. Department of Commerce, Washington 25, D.C.

Resources for the Future

Resources for the Future, which has headquarters at 1145 19th St., NW, Washington, D.C., has planned a forum, a series of six lectures and discussions that will deal with new developments in the natural sciences and in technology, and with their impact upon society and resources. Each lecture, given by a natural scientist noted in his field, will be followed by a discussion by leaders in the social sciences, business, or politics; these participants will relate scientific developments to their long-term social and economic significance. The forum series will be held in the Smithsonian Institution's Museum of Natural History. The program follows:

8 January: Genetics. George Beadle, chairman, Division of Biology, California Institute of Technology, and 1958 Nobel Prize winner; Henry A. Wallace, plant breeder, formerly Vice President of the United States, Secretary of Agriculture, and Secretary of Commerce; O. V. Wells, economist, administrator, Agricultural Marketing Service, U.S. Department of Agriculture.

22 January: Weather Modification. Horace R. Byers, chairman, department of meteorology, University of Chicago; Clinton P. Anderson, U.S. Senator from New Mexico, formerly Secretary of Agriculture; Edward A. Ackerman, geographer, assistant executive officer, Carnegie Institution of Washington.

5 February: Mineral Exploration. John A. S. Adams, associate professor of geochemistry, Rice Institute; Paul W. McGann, chief economist, U.S. Bureau of Mines; another speaker to be announced.

26 February: Chemical Technology. Earl P. Stevenson, industrial chemist, chairman of the board, Arthur D. Little, Inc.; Richard L. Meier, organic chemist, research associate in planning, University of Michigan; Frederick T. Moore,