

NOTES FROM ABROAD

CERN looks ahead

The 27th session of the Council of the European Organization for Nuclear Research was held at Meyrin-Geneva on June 18 and 19 under the presidency of J. H. Bannier of the Netherlands. During the early part of the session, the Council heard a report on CERN activities in the first half of 1964, presented by V. F. Weisskopf, the Organization's director general. In his report, Professor Weisskopf laid especial stress on fundamental-particle research with the 28-BeV proton synchrotron, including the discovery of meson resonances, the search for "quarks", and the use of neutrinos to study the weak interaction.

The later part of the session was dominated by a discussion of CERN's future program. Three main proposals for development have been made, i.e., improvement of the present installations at CERN; the addition of particle storage rings, 300 meters in diameter, to the existing synchrotron at a cost of 300 million Swiss francs; and the construction of an accelerator with an energy of about 300 BeV. The new machine would be perhaps 2.4 km in diameter, and, together with its laboratory, would cost about 1600 million Swiss francs. In the course of the discussion, Professor Weisskopf urged that the three items be considered a single entity: "The triptych that European physicists wish to unfold comprises three panels that cannot be separated. . . ."

The task of carrying out the CERN program, along with necessary parallel developments that will be strictly national, is expected to triple European expenditures on particle physics over the next ten years. At present, according to a statement by C. F. Powell, about two parts per thousand of Europe's resources go into fundamental research, between two and three percent into research and development, and seven percent into armaments. It seemed to him that an increase in the amount spent on fun-

damental research was not at all out of place in a period of human history characterized by the doubling of scientific knowledge every twelve years.

At the end of the discussion, the president of the Council invited the delegates to make recommendations to their governments that would permit the Council to make a decision on the storage rings—if possible by December of this year. A decision on the 300-BeV accelerator, it was indicated, would be desirable by the end of 1966. Meanwhile, member states are invited to submit proposals for possible sites for the new machine.

Overseas Educational Service

A new organization, formed recently, has as its major objective the recruitment of American academic personnel for service in the colleges and universities of Africa, Asia, and Latin America. Known as the Overseas Educational Service, it is sponsored jointly by the National Academy of Sciences, the American Council on Education, and the organization Education and World Affairs. The Service operates under the authority of the Board of Trustees of the last-named institution.

In addition to its recruiting activities, the OES will be concerned with finding solutions for the personal, economic, and career problems involved in extended overseas service and providing information about educational systems and individual schools in the developing countries.

Europe and space research

The European Space Research Organization (ESRO) was formally inaugurated on March 24, with Belgium, Denmark, France, West Germany, the Netherlands, Spain, Sweden, Switzerland, and the United Kingdom as members. (Italy will become the tenth member upon ratification of the ESRO Convention.) Pierre Auger of

France is the organization's first director general.

The foundation for ESRO was established in December 1960 at a conference convened by the Swiss government at which the above-named ten nations plus Austria and Norway were represented. The conference authorized the establishment of the European Preparatory Commission for Space Research (COPERS), which began work in February 1961 under the chairmanship of Sir Harrie Massey. COPERS prepared the scientific and technical program for ESRO's first eight years and established a detailed launching program for the first year. The Preparatory Commission also prepared estimates of expenditure, drafted the structure of the Organization, and recruited a nucleus staff. The headquarters of the COPERS secretariat in Paris has become the headquarters of ESRO.

The Organization will maintain a number of technical facilities located in various member states. Its space technology center, located at Delft, will deal with the development of rocket payloads, space probes, and satellites. A laboratory will be established near that center to permit scientists from member states to work as fellows on particular projects. ESRO's data center, to be established in Darmstadt, will undertake the processing of data obtained from sounding rockets and spacecraft, as well as a limited program of research associated with its computer facilities.

The European Space Research Institute will be located in Italy. Its function will be to carry out laboratory work to complement rocket and space-probe experiments, mainly in the areas of particle reactions, electromagnetic radiation, and low-density plasma physics.

ESRO will have its own launching range at Kiruna in northern Sweden, where operations are expected to begin at the end of 1965 or the beginning of 1966. Meanwhile, the Organization will use the launching pads of member nations. Some of the 1964 launchings may take place from Salto di Quirra in Sardinia or from the French Ile du Levant.

The Organization's initial program calls for the launching of about