

mittee. OST should annually review US research and development and recommend a program for the coming year. It should develop criteria for the support of basic research by mission-oriented agencies. The report noted that because OST frequently handles immediate crises it does not fulfill even its few existing statutory obligations. It said that OST has the legal duty to formulate basic Government science policy within a continuing framework and to evaluate and report on overall Government research efforts and activities but that "OST does not perform

either function in an adequate fashion. Indeed, under existing circumstances, it cannot."

Commenting on the report, Robert Barlow of OST told PHYSICS TODAY that science adviser Edward David Jr wants to take a stronger role in sorting out what the mission agencies should be doing so that the President and the Congress can better make their decisions. Other report recommendations include:

► The proposal to form National Institutes of Research and Advanced Studies from parts of a number of ex-

isting agencies ought to be implemented.

► The Senate should emulate the House's Science and Astronautics Committee and establish its own science focal point.

► An Office of Technology Assessment should be established in Congress.

► The Office of Management and Budget ought to develop a "stable funding" procedure for basic research to avoid seriously disruptive funding fluctuations.

► The institutional grants program of NSF should be upgraded.

UNESCO: helping physics for twenty-five years

After trying to promote and improve science for the past 25 years, UNESCO has made major contributions to international physics. It has helped establish two major centers for physics in Europe and recently in Latin America has initiated a third physics center and has begun a pilot project for teaching physics.

In the eight Latin American countries involved in the teaching project, UNESCO is trying to develop and test a new approach to physics. UNESCO's program was formulated by Pär Bergvall of Sweden and Nahum Joel of Chile, both physicists, who worked with a team that dealt with the psychology of learning, films, television, programmed instruction and mathematics. Although based on the style of PSSC, the program also considers the problems of large

classes, remote schools, poor teacher preparation, limited funding and the socio-cultural differences of Latin America.

The Latin American Center for Physics (CLAF) is part of UNESCO's effort to develop regional centers in the lesser developed countries. Although officially created in 1962, CLAF had its constitution ratified only recently by some leading Latin American states. During 1969 it supported 134 student fellowships and 59 visiting professorships, sponsored 10 regional courses or seminars, published directories of Latin American physicists, institutions, research programs and physics courses and began its monthly periodical *Noticia*.

CLAF is the third physics center to be initially sponsored by UNESCO. In

1954, the European Center for Nuclear Research, CERN, was established when its twelve founding states ratified the convention sponsored by UNESCO. CERN is now completely autonomous and receives its support and direction from its member states. Ten years later, UNESCO took part in the formation of the International Centre for Theoretical Physics in Trieste, Italy. This center, which was proposed and is directed by Abdus Salam, was designed to provide research facilities for physicists who retain close ties with their respective countries. It is now supported by UNESCO, the International Atomic Energy Agency and the Italian government.

Most of UNESCO's activities are coordinated at its headquarters in Paris, which employs 1800 persons, in addition to a field staff. Physicists are broadly distributed within the field staff: a Swiss is assigned to a secondary-school teaching institute in Burundi, a Czech is doing research in Cameroon, a Dane is senior lecturer in Ethiopia and a Russian is teaching methods of physics in India. Among the 1025 field posts, 32 are in some way concerned with physics. These are situated in 24 different countries and held by physicists with 20 different nationalities.

Academic science support down 5-10% since 1968

Although total funding for science in academic institutions has increased in the last two years, it comes as no surprise to learn that no one feels any better off than before; inflationary factors and increased enrollments have resulted in a net decrease in effective support of some 5-10% since 1968. National Science Foundation data from a sample of 100 PhD-granting institutions show that academic science expenditures increased by 7% and 8.5% during 1968-69 and 1969-70 respec-



Part of UNESCO's pilot project on teaching physics is practical work in filming. Photograph was taken at the Audio-Visual Center at the University of Sao Paulo, Brazil.