

editorial

IUPAP—A union for all physicists

This month's issue is devoted to international physics—our tribute to the 50th Anniversary of the founding of the International Union of Pure and Applied Physics (see page 23). Way back in 1922, Americans were among the outlanders of the physics world. The lines of communications opened up with the Continent with the help of IUPAP were crucial to the subsequent development of US physics to a position of leadership. Accordingly, for IUPAP's Golden Anniversary, the American physics community is pleased to serve as the host this year of the annual meeting of the IUPAP General Assembly, the first time the Assembly has met on US soil.

But the help provided to American physics is only part of the IUPAP story. Together with the other member unions of the ICSU (International Council of Scientific Unions), IUPAP can take credit for inspiring a significant worldwide growth in international scientific cooperation in the years since World War II, especially between Eastern Europe and the West. Now in 1972, international science agreements between nations are at the point of bursting into full bloom. Bodo Bartocha, who heads the National Science Foundation's Office of International Programs, predicts that we are entering a period of increased emphasis and interest on international scientific cooperation. As of this time the NSF is the executive agent for twelve bilateral agreements with other countries for cooperative science and exchange programs. In addition there is the recently concluded agreement with the Soviet Union which has been well publicized in the press. Not so well known are the agreements signed with Argentina, Brazil and Mexico which provide for scientific and technical cooperation for the first time with these countries. In addition there are also ongoing NSF agreements of cooperation and exchanges with East European countries (Bulgaria, Czechoslovakia, Hungary and Rumania) and other countries such as Australia, France and Japan. These other programs are administered through Bartocha's office with an annual budget of \$4 million. (In the current fiscal year NSF hopes to increase this

figure to \$4.7 million.) About \$1 million out of the budget goes for the highly successful "man to man" program operated by the National Academy of Sciences with the Eastern European countries. This program, in which individual scientists are exchanged for periods from a few days up to a year, has been expanded for most of the countries involved by as much as 50%. In addition to supporting the expenses of US scientists involved in exchange programs, a good share of the NSF International Office's budget is spent to help support international scientific organizations and defray the costs of attending international meetings.

A brand-new area involving international cooperation which is just opening up is computerized information services. The goal of world-wide computerized systems that would process the literature of physics and the other sciences is now being explored under the auspices of the ICSU Abstracting Board.

Given the notorious lack of success experienced by most attempts at international cooperation, how can we account for the marked success of IUPAP and the other international unions? Frederick Seitz points out (page 25) that the key factor is the insistence of the unions on being "very consciously apolitical." This means keeping the doors open to scientists of all countries to participate, even those whose governments hold unpopular positions on political or racial issues. History has confirmed the wisdom of this policy. During times when official governments were not on speaking terms, IUPAP has been able to keep open channels of communication that have been important not only to physics as a science but also as an aid to diplomatic relations.

The pressures today on scientific delegations to take public stands on political and racial questions are greater than ever before. If we are to preserve the remarkable international *esprit de corps* that now exists in physics and other sciences, it is especially important that these pressures continue to be successfully resisted by the international unions.

Harold L. Davis