

national collaboration should be planned for the coming solar maximum. The London poll showed that the strongest interest lay in positive and negative ions in the D-region; and waves and turbulent motions in the D- and E-regions. Other topics concerned ionospheric photoelectrons; winter absorption anomalies, polar-cap absorption events, sunrise effects in the E-region, and plasma oscillations in the F-region. There were new proposals for conjugate-point ionospheric studies, for comparisons of the ionosphere at the two poles, and for investigations of solar radiation effects in the stratosphere and mesosphere.

In the development of techniques to be used during the next solar maximum (1968-69) the physicists gave high priority to a solar-monitoring satellite, to continued flights of satellites measuring electron and ion temperature, to ground-based studies of the upper ionosphere (and especially of ion-drift velocities) with the incoherent back-scatter technique, and to radar studies of the movements of meteor ionization trails. King was seeking support for the concept of an internationally equipped and operated satellite for routine monitoring observations.

The other disciplines represented were engaged in similar discussions during the IQSY/COSPAR meetings. On this basis, overall proposals for the solar maximum were being drafted for submission to the International Council of Scientific Unions and to the adherent nations and specialist unions. H. Friedman, president of IUCSTP, remarked in London that the international program in this field would no longer be a "stop-and-go" operation. His commission's work will continue indefinitely. Friedman identified three phases in the development of proposals for programs in solar-terrestrial physics. In the first, the capabilities developed in the IQSY are to be exploited further though with some changes in emphasis, for example, to encourage regional, rather than global, studies of "mesoscale" phenomena. Second, a number of new programs will be initiated. And, third, the Commission will seek to identify suitable topics and occasions for major undertakings. Even though the full Commission was meeting for the first time, in London, there was a sense of urgency. With the solar maximum approaching rapidly, some of the programs will have to be under way next year.

—NIGEL CALDER

APPOINTMENTS



A. F. Spilhaus



C. H. Townes

Athelstan F. Spilhaus, dean of the School of Science and Technology, University of Minnesota, to president of the Franklin Institute, Philadelphia. He succeeds **Wynn L. LePage**, who is to become chairman of the board at the Institute. . . . **Charles H. Townes**, Nobel Prize laureate and Institute Professor, Massachusetts Institute of Technology, to Professor-at-Large, University of California. . . . **Francis A. Arnold, Jr.**, assistant surgeon general and chief dental officer of the Public Health Service, to coordinator of research, School of Dentistry, University of the Pacific, San Francisco. . . . **A. Starker Leopold**, professor of zoology, University of California, Berkeley, to an additional position of chief scientist of the National Park Service. . . . **Lewis M. Alexander**, on leave from position of chairman of the department of geography, University of Rhode Island, to deputy director of the Commission on Marine Science, Engineering and Resources. . . . **James E. Banta**, chief of the technical resources staff, Office of International Health, to director of the Office of International Health, Public Health Service. . . . **George H. Vineyard**, associate director, Brookhaven National Laboratory, to deputy director. He succeeds **Clarke William**, who is to retire. . . . **Paul G. Klemens**, manager of transport properties of solids department, Westinghouse Research Laboratories, to head of the department of physics, University of Connecticut. . . . **Walter D. Knight**, professor of physics, University of California, Berkeley, to dean of the College of Letters and Science, at the Berkeley campus. . . . **George E. Schafer**, vice commander of the Aerospace Medical Division, to commander of the U.S. Air Force School of Aerospace Medicine. . . . **John M. Anderson**, associate professor of biology, Carleton University, Ottawa, to director of the Fisheries Research Board

of Canada Biological Station. . . . **Wright Adams**, associate dean and chief of the clinical staff of the Division of Biological Sciences, University of Chicago, to executive director of the Heart Disease, Cancer and Stroke Regional Planning Program for Illinois. . . . **James H. Werntz**, associate professor of physics, University of Minnesota, to director of the Center for Curriculum Studies at the university. . . . **John F. Mullan**, professor of neurosurgery, University of Chicago, to director of the Division of Neurosurgery, Department of Surgery, at the university. . . . **Joseph C. Olson, Jr.**, professor of bacteriology, University of Minnesota, to director of the Division of Microbiology, Food and Drug Administration. . . . **Leon Eisenberg**, professor of child psychiatry, Johns Hopkins University School of Medicine, to head of the Harvard department of psychiatry, Massachusetts General Hospital, and **Seymour S. Kety**, chief of the Laboratory of Clinical Science, National Institute of Mental Health, to professor of psychiatry, Massachusetts General Hospital.

RECENT DEATHS

Justin M. Andrews, 64; retired director of the National Institute of Allergy and Infectious Diseases, NIH; 30 June. **Charles Armstrong**, 88; retired chief of the division of infectious diseases, NIH; 22 June. **Theodore H. Barth**, 75; co-inventor of the Norden bomb sight and founder of the Norden Laboratories, Danbury, Conn.; 19 June. **William H. Emig**, 78; professor emeritus of botany, University of Pittsburgh; 8 June. **Klaus Epstein**, 40; chairman of the department of history, Brown University; 23 June. **Samuel Kagan**, 50; supervising psychiatrist, Hudson River State Hospital; 3 July. **Jihei Konishi**, 41; lecturer in the faculty of Fisheries, Mie Prefecture University, Tsu, Japan; 4 June. **Charles A. Kraus**, 91; professor emeritus of chemistry, Brown University; 28 June. **Otto L. Mohr**, 81; retired rector, Oslo University, Norway; 23 June. **Sam Switzer**, 36; assistant professor of medicine, Albert Einstein College of Medicine; 2 June.