

program would require an intensive effort aimed at making the world appear considerably more hazardous than it now appears to a great many Americans. A crisis of some sort may arrive to provide the Administration with a beneficial background, but with Berlin cooled off and talk of summitry on the increase, it seems likely that the appropriations measure will arrive on stage during a time of relative international calm.

If Thomas succeeds in sustaining heavy cuts in the budget request, it is not clear at this stage just what the effects will be on the overall civil defense program. The Administration's program is built around the use of existing structures for shelters and an incentive plan to encourage state and local governments and private nonprofit organizations to build shelters, the latter to cost \$1.8 billion over a 5-year period. According to a member of Thomas's subcommittee, it appears likely that the group would be willing to continue the program to identify, mark, and stock buildings that offer fallout protection, "but it's going to be hard to convince us that we should pour a lot of money in building from scratch."

—D. H. GREENBERG

### Space Cooperation: The Past Week Was a Busy and Fruitful One

International space cooperation was zipping along last week at something resembling orbital speed.

The most dramatic event was the arrival in this country of Major Gherman S. Titov, the Soviet cosmonaut, to participate in the Committee on Space Research meetings now under way in Washington. Titov's agenda had not been finally determined at this writing, but it appeared likely that his travels would include a tour of Cape Canaveral, with his U.S. counterpart, Lieutenant Colonel John Glenn, as a guide. Titov's arrival at the Cape would make him the first Soviet representative to accept an invitation to visit America's biggest and best-known space facility, and would indicate that the Soviets are becoming still less edgy about getting involved with the U.S. in joint space efforts. The Soviets accepted an invitation last month to visit Cape Canaveral with the U.N. Committee on the Peaceful Uses of Outer Space, but at the last minute declined without explanation.

The past week also saw the launching of the first international satellite, a 132-pound British device carried aloft at Cape Canaveral by an American Thor Delta rocket. The launching was a success. It was followed by another successful joint undertaking, the firing from Wallops Island, Virginia, of a sounding rocket carrying instruments developed by Japanese and American scientists.

During the week the way was cleared for additional undertakings in space cooperation with the announcement that the secrecy classification had been lifted from the geodetic "flashing light" satellite. The project is one for which the National Aeronautics and Space Administration originally shared responsibility with the military, but NASA stepped out when a security classification was applied.

The satellite, which is scheduled for launching sometime this month, carries a flashing light which will make possible earth measurements of far greater precision than can be obtained with existing techniques. The device fits in extremely well with the U.S. desire to have other countries know of the peaceful fruits of our space research, since even a simple astronomical telescope will be adequate for observing the light for measurement purposes.

The struggle to remove the security classification is reported to have been a hard one, that finally resolved with a decision from Roswell L. Gilpatric, the number two man in the Pentagon. The Defense Department's new combined intelligence organization opposed the decision on the ground that the precise earth measurements obtainable with the satellite would be useful for pinpointing missile targets. Derived measurements of the United States, the argument ran, would quickly become available to everyone, but measurements of Soviet territory would be hard to come by.

In the final showdown on the question of the satellite's security classification, the secrecy advocates found themselves arrayed against the President's science adviser, NASA, the House Space Committee, and the Pentagon's civilian authority. The most decisive argument was perhaps that, in the era of supermegaton weapons, the importance of precise measurement to the target becomes fairly negligible and is outweighed by the good will that could be derived from making the satellite available to the world.

## Announcements

The U.S. Public Health Service, following a study by a subcommittee of the House Committee on Government Operations, has terminated the practice of awarding **research grants to profit-making institutions**. Present support to such organizations will either be discontinued at the termination of the current grant or continued under contract. The new policy affects only a small portion of the 15,000 PHS grants now in effect; the majority are to universities and other nonprofit institutions.

Educational Television Overseas, designed to provide **packaged ETV programs for developing countries**, is scheduled to begin operation this spring in London. School programs will be directed at both secondary and primary levels, with emphasis on teacher-training; adult programs for home viewing will concentrate on literacy, public health, agriculture, and child welfare. Notes on intended teaching points and suggestions for adaptation to local needs will be supplied with the kits, and ETO members will be available for work in the countries concerned.

Funds for the center are being supplied from private British sources, with grants of \$280,000 promised by the British Government over the next 5 years. (British Information Services, 45 Rockefeller Plaza, New York 20)

### Grants, Fellowships, and Awards

One- to two-year postdoctoral fellowships for basic research in the **chemistry and physics of fibers** are being offered by the Textile Research Institute in cooperation with Princeton University. Annual stipends will range from \$7200 to \$9000, depending on experience. (L. Rebenfeld, Textile Research Institute, Princeton, N.J.)

Applications for July 1964 appointments as **clinical or research associates** are now being accepted by the National Institutes of Health. Deadline for receipt of applications: *21 September 1962*. (Murray C. Brown, Clinical Center, NIH, Bethesda 14, Md.)

The National Aeronautics and Space Administration will begin supporting a \$2 million **training program in science and engineering** at 10 universities next

fall to meet the needs of the national space effort. Each of the universities will select and train 10 predoctoral graduate students, who will receive 12-month stipends of \$2400 and expense allowances up to \$1000. Grants will be renewable for up to 3 years. Universities selected for participation in the first year of the program are: Rensselaer Polytechnic Institute, Troy, N.Y.; University of Maryland, College Park; Georgia Institute of Technology, Atlanta; University of Michigan, Ann Arbor; University of Chicago (Ill.); University of Minnesota, Minneapolis; State University of Iowa, Iowa City; Texas A. and M. College, College Station; Rice University, Houston, Tex.; and the University of California (Los Angeles). (Office of Grants and Research Contracts, Office of Space Sciences, Code SC, NASA, Washington 25, D.C.)

## Meeting Notes

An **Australian Association of Clinical Biochemists** has been established with a membership of 120. The organization's first annual meeting will be held in Sydney on 21 August. (D. H. Curnow, Royal Perth Hospital, Perth, Western Australia)

Suggestions of appropriate topics for discussion at the **1963 Gordon Research Conferences** are being solicited. Conference subjects should be timely and in active areas of basic research involving the physical or biological sciences. (W. George Parks, Gordon Research Conferences, Department of Chemistry, University of Rhode Island, Kingston)

An international symposium on **basic environmental problems of man in space**, sponsored by UNESCO, the International Atomic Energy Agency, and the World Health Organization, will be held in Paris from 29 October to 2 November. The program—devoted to ecophysiology; psychophysiology; and data acquisition, analysis, and control—will include a review session on papers of a more general nature. An accompanying exhibition will show techniques used to study problems encountered during space flight, and equipment which has been developed thus far. (W. R. Lovelace, II, Lovelace Foundation for Medical Education and Research, Albuquerque, N.M.)

## Scientists in the News

**Roger Revelle**, on leave from the University of California (San Diego) as science adviser to the Secretary of the Interior, and **W. Barry Wood, Jr.**, of Johns Hopkins School of Medicine, have been elected to serve as members of the Council of the National Academy of Sciences. They succeed retiring councillors **Roger Adams**, of the University of Illinois, and **W. V. Houston**, president of Rice University.

The following are newly elected members of the Academy:

**Lawrence H. Aller**, professor of astronomy, University of Michigan.

**William A. Arnold**, principal biologist, Oak Ridge National Laboratory.

**Virgil C. Boekelheide**, professor of chemistry, University of Oregon.

**Robert W. Briggs**, professor of zoology, Indiana University.

**Harvey Brooks**, professor of applied physics and dean of the division of engineering and applied physics, Harvard University.

**John M. Buchanan**, professor and head of the division of biochemistry, Massachusetts Institute of Technology.

**Geoffrey F. Chew**, professor of physics, University of California.

**Albert H. Coons**, visiting professor of bacteriology and immunology, Harvard Medical School, and career investigator of the American Heart Association.

**Michael Doudoroff**, professor of bacteriology, University of California, and professor, Miller Institute for Basic Research in Science.

**Alfred E. Emerson**, professor of zoology, University of Chicago, and research associate, American Museum of Natural History and Chicago Natural History Museum.

**Scott E. Forbush**, chairman, section of theoretical geophysics, department of terrestrial magnetism, Carnegie Institution of Washington.

**Herbert Friedmann**, director, Los Angeles County Museum of History, Science, and Art.

**Robert M. Garrels**, professor of geology, Harvard University.

**Donald A. Glaser**, professor of physics, University of California (Berkeley).

**David E. Green**, codirector, Institute for Enzyme Research, and professor of enzyme chemistry, University of Wisconsin.

**Paul Herget**, professor and director of the observatory, University of Cincinnati.

**Harold L. James**, professor of geology, University of Minnesota.

**Martin D. Kamen**, professor of biochemistry and chairman of the department of biophysics, Brandeis University.

**Seymour S. Kety**, professor of psychiatry and psychiatrist-in-chief, Johns Hopkins University.

**Paul J. Kramer**, James B. Duke professor of botany, Duke University.

**Chia-Chiao Lin**, professor of mathematics, Massachusetts Institute of Technology.

**Franklin A. Long**, professor of chemistry, Cornell University.

**Gordon J. F. MacDonald**, professor of geophysics, University of California (Los Angeles), and staff associate, Geophysical Laboratory, Carnegie Institution of Washington.

**George W. Mackey**, professor of mathematics, Harvard University.

**George A. Miller**, professor of psychology, Harvard University.

**Charles B. Morrey, Jr.**, professor of mathematics, University of California (Berkeley).

**Abraham Pais**, professor of physics, Institute for Advanced Study.

**William H. Pickering**, professor of electrical engineering and director, Jet Propulsion Laboratory, California Institute of Technology.

**Irving Rouse**, professor and chairman of the department of anthropology, Yale University.

**Emil L. Smith**, professor of biochemistry and research professor of medicine, University of Utah.

**Philip Sporn**, president and director, American Electric Power Company.

**Thomas D. Stewart**, curator, division of physical anthropology, U.S. National Museum.

**William L. Straus, Jr.**, professor of anatomy and physical anthropology, Johns Hopkins University.

**Shields Warren**, professor of pathology, Harvard Medical School, and chief pathologist, New England Deaconess Hospital.

**James D. Watson**, professor of biology, Harvard University.

**Bo Thorell**, of the Karolinska Institutet in Stockholm, is spending the spring semester as visiting professor of medical physics at the University of California (Berkeley).

**Lester N. Recktenwald**, psychologist formerly at the University of Scranton, has been appointed associate professor at West Chester (Pa.) State College.