

foreseen international developments—to our government scientists' joining other American scientists in attendance at the Fifth International Congress of Biochemistry in Moscow next August.

Through this joint participation in the Congress we will have an opportunity to display our leadership in biomedical research. Our prestige will be enhanced in an important segment of the world scientific community and we will gain invaluable first-hand information on progress in other countries in the field of biochemistry."

### Plans for First British Satellite Announced Jointly by U.K. and NASA

Scientists from Great Britain and the National Aeronautics and Space Administration have recently completed a series of meetings on the cooperative launching of the first British satellite. The experiments to be conducted were selected, and it was agreed that they would be flown in a Scout vehicle to be launched by NASA in about a year. In addition, a second U.K. Scout satellite is being planned.

These joint projects are an outgrowth of the offer made by NASA to provide launching facilities for experiments of mutual interest prepared by scientists of other countries. This offer was made through the U.S. National Academy of Sciences' delegate to COSPAR last year.

#### Description of Satellite

The initial British satellite, designated International Ionosphere Satellite S-51 but referred to as U.K. No. 1, is to be roughly spherical and nearly 2 feet in diameter. Four telemetry antennas will transmit in the 136 to 137 megacycle-per-second band to ground stations, either directly from the instrument payload or from a tape recorder on which data gathered while the satellite is in orbit will be stored. This tape recorder will play back on command from ground stations, one of which will be in the United Kingdom at the Radio Research Station, Slough. The experimental data will be available first to the U.K. scientists responsible for the instruments in the satellite.

Electrical power will be generated by four paddles carrying solar cells and will be used to charge a system of batteries in the satellite. This power supply will be designed to operate for a year, after which time the radio transmitters will be switched off.

Structure, telemetry system, tape re-

corder, and power supplies are the responsibility of NASA.

The scientific instruments are being designed and made in Britain. They will include instrumentation for a Birmingham University electron density experiment, which will be carried, in part, on a boom which will swing out radially from the satellite after launching. A similar boom will carry a probe electrode for one of the University College, London, experiments. The cosmic-ray detector of Imperial College, London, will be mounted on the spin axis of the satellite, immediately behind the spherical detector of the University College ion-mass spectrometer.

The satellite will be launched from Wallops Island, Va., into an orbit which will carry it over the United Kingdom. It will be stabilized by spinning about its axis.

### Scientists in the News

The American Academy of Arts and Sciences has announced the winners of the Academy Monograph Prizes for 1960. Three awards of \$1000 each go to the authors of especially meritorious unpublished monographs, one each in the fields of the humanities, the social sciences, and the physical and biological sciences.

**Rodney Needham** of Oxford, England, received the social sciences award for a manuscript on "Structure and Sentiment."

**Max Jammer** of Jerusalem, Israel, won the physical and biological sciences prize for his work entitled "Concepts of Mass in Classical and Modern Physics."

The Academy Monograph Prizes are intended to encourage and assist the publication of scholarly contributions to knowledge that are too long to be published as articles in the learned journals and too specialized or too short for publication as a general book. In response to this prize competition more than 200 manuscripts were submitted by scholars and scientists from all parts of the English-speaking world.

**Per K. Frolich**, deputy chief chemical officer for scientific activities and chief scientist of the Army Chemical Corps, retired on 31 December. He joined the Corps in 1954 from Merck and Co., Inc., Rahway, N.J., where he was vice president and scientific director of the Chemical Division. Prior to that he had been director of the Esso

Laboratories Chemical Division of the Standard Oil Development Company.

While with the Army, Frolich was responsible for research and development and for engineering activities throughout the Chemical Corps. He plans to engage in consulting activities and will continue to live in Annandale, Va.

The third annual F. G. Novy Lecture at the University of Michigan was presented on 15 December by **Herman C. Lichstein**, professor of bacteriology, University of Minnesota. He spoke on "Physiological Control Mechanisms in the Bacterial Cell."

**E. Barthel, Jr.**, assistant director of the Armour Research Foundation at Illinois Institute of Technology, has resigned, effective 1 January, to become program director for international activities of the National Science Foundation, Washington, D.C. He is succeeded by **Niels C. Beck**, who has served as director general of the Union of Burma Applied Research Institute, an ARF project, for the past 4 years.

**Dennis C. Smith** of the Turner Dental School of the University of Manchester (England) is visiting associate professor at the Northwestern University Dental School for 1960-61. On 18 January he will speak on "Research in Dental Materials and Its Relation to Clinic Practice" as the dental school's annual Thomas L. Gilmer memorial lecturer.

**David W. G. Arthur**, research associate in the University of Arizona's Steward Observatory and in the lunar and planetary laboratory of the Institute of Atmospheric Physics, has been awarded the British Photogrammetrical Society's Silver Medal for 1960. He received the honor for work done in England in 1958 as cartographer and photogrammetrist with the Ordnance Survey of Great Britain, a post he held for some 15 years. Arthur joined the Arizona staff last October as a member of Gerard P. Kuiper's lunar research group. Kuiper is establishing the IAP's new lunar and planetary laboratory at the university.

*Erratum:* In the report "Estimate of the human load of mutations from heterogeneous consanguineous samples," by N. Freire-Maia and A. Freire-Maia [*Science* 132, 1317 (4 Nov. 1960)], recalculation, by the formula of Morton Crow, and Muller, leads to values of -0.18 for Caucasians and 8.74 for Negroes, instead of the values of -0.24 and 10.46, respectively, given at the end of the next-to-last paragraph.