News Notes

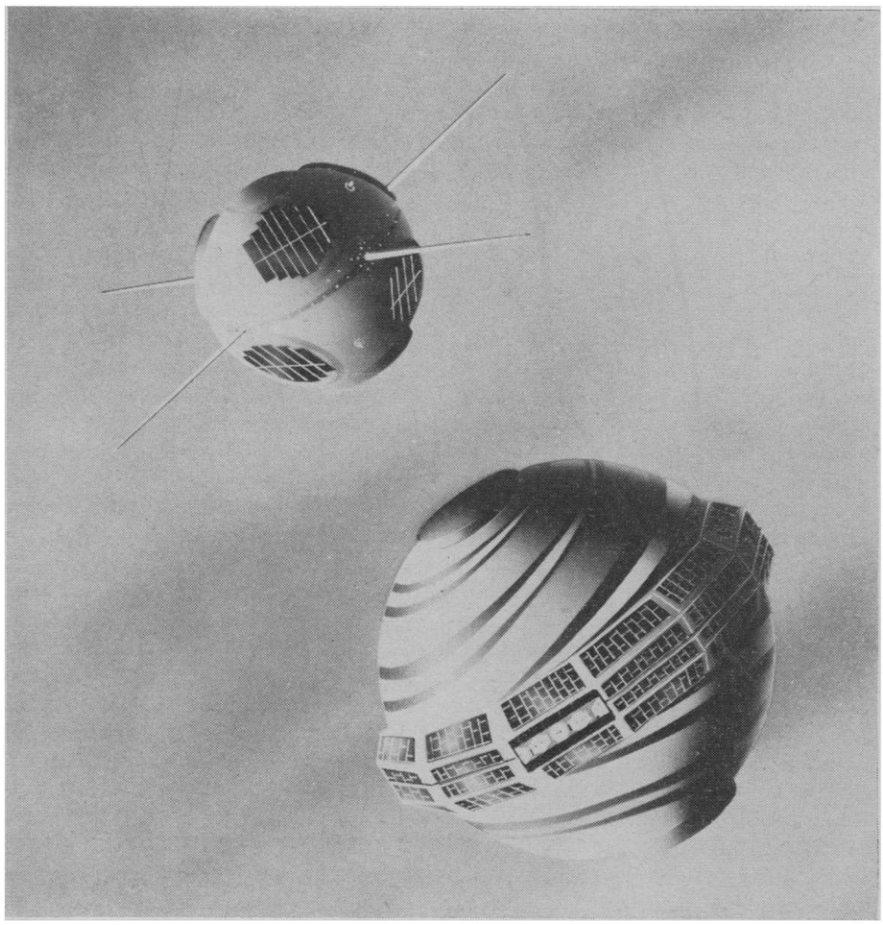
New Satellite Working "Fantastically Well," Says the Navy

The Transit II-A satellite that the Navy fired into orbit last week can be used to define a ship's position to within a tenth of a mile, about one fifth the margin of error of conventional stellar navigation methods. The new Transit is traveling in an orbit ranging from 382 to 657 miles above the earth, accompanied by the "Grebi," a smaller satellite for measuring solar radiation which was fired into orbit by the same launching rocket.

Navy officials described themselves as astounded by the accuracy of the device. They said that the experiment puts the satellite navigation program well ahead of schedule. They expect that the next launching, scheduled for the fall, will allow the limited use of the system by commercial ships. The Navy says it now expects to have a fully operational system installed sometime in 1961. This will probably involve four Transits, enough to have one of the navigational satellites pass within range of a ship's receiving equipment every 15 minutes.

The high accuracy of this system will be used to provide extremely precise information on the shape of the earth, derived from the slight changes in orbit which can be detected by using the Transit instrumentation. The key to the system lies in making use of calculations based on the Doppler effect, that is, on the slight changes in signal frequency as the satellite approaches and passes an observing station. The great value to shipping of the system is that ships will no longer have to rely on crude calculations when bad weather makes solar or stellar navigation impossible.

The technique of launching two satellites with a single rocket will probably be used often in the future. It was regarded as having a number of technical advantages over putting all instrumentation for a number of independent experiments into one satellite.



The "Greb," a 42-pound satellite for measuring solar radiation, is orbiting the earth slightly ahead of the Transit-2A navigational satellite.

Expedition to the Indian Ocean

A major oceanographic undertaking, the International Indian Ocean Expedition, will get under way late this year and will continue through 1964. It will greatly extend man's knowledge of these least-known waters of the world, which cover a seventh of the earth's surface. Like the recent International Geophysical Year, the expedition will constitute a many-sided scientific attack on a single area of interest under the leadership of a special committee of the International Council of Scientific Unions, a nongovernmental organization with headquarters in The Hague.

Scientific responsibility for United States participation will be borne by the National Academy of Sciences–National Research Council. The U.S. Navy will make available oceanographic ships sponsored by the Navy and operated by leading United States oceanographic institutions. The National Science Foundation will be responsible for planning and coordinating federal support for U.S. participation in the program, including financial support.

The expedition's peak activity is expected to occur during 1962 and 1963 when ships and scientific personnel from well over a dozen nations will be conducting basic research in physical and chemical oceanography, meteorology, marine biology, geophysics, and submarine geology.

Physicists Form Commission on College Physics Teaching

Formation of a nationwide commission to plan a coordinated national program for the teaching of college physics was completed by 60 physicists representing 36 colleges and universities, industry, and various professional organizations during a recent 3-day conference at the University of Minnesota. The commission, to consist of 17 members, including two ex-officio members from the American Association of Physics Teachers and one from the American Institute of Physics, will begin planning its program at once. The conference was the third such meeting sponsored by the American Association of Physics Teachers and supported by the National Science Foundation.

The physicists proposed that the commission, tentatively named the Commission on College Physics, be associated with the American Association

of Physics Teachers and be responsible to it, but that it be authorized to plan its own program, to seek financial support, and to employ necessary staff and consultants.

The commission will call upon the entire physics profession to help in the preparation of teaching aids, including books, laboratory apparatus, demonstration equipment, and films, and will organize investigations into such problems as curricula, teacher training, and supply and apparatus development and distribution. Universities and colleges will be invited to participate in the collaborative effort and to support participation of their staff members in the program. Support funds will be sought from governmental sources and from private foundations.

Specific phases of the program will be planned and carried out by individual physicists, by the professional associations of physicists, and by the commission and its various subcommittees. It is expected that several hundred physicists will be participating in the program when it reaches its full level of activity.

British Association To Meet in Cardiff

The British Association for the Advancement of Science will hold its 122nd annual meeting in Cardiff, 31 August–7 September. The presidential address of Sir George Thomson, "The Two Aspects of Science," will highlight the week's events.

Participants in a full-day symposium on the world food and population situation will outline the major problems and discuss immediate steps that can be taken.

The Kelvin, Darwin, and Lister lectures, which were inaugurated at the 121st meeting to encourage young scientists to explain the significance of their work in nontechnical language, will be a major attraction of the sectional programs.

An extensive program of excursions, including visits to industrial and commercial establishments in South Wales and Monmouthshire, is planned.

News Briefs

Forestry congress. The 5th World Forestry Congress will meet on the campus of the University of Washington, Seattle, 29 August–16 September. The congress, which will be attended by more than 2000 foresters from 50 nations, will give special consideration to the problems of multiple use of forest lands. Papers will be presented on silviculture and management, genetics, protection, economics and policy, education, products, forest and range watersheds, recreation and wild-life, operations, and tropical forestry.

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Physics meeting. The first official reports of the world's most powerful accelerator, the 25 billion electron volt machine at the European Center for Nuclear Research, will highlight the 10th international Conference on High Energy Physics at the University of Rochester, 25 August–1 September. The conference, sponsored by the International Union of Pure and Applied Physics and other organizations, will be attended by 325 scientists from 31 countries. Membership is by invitation, and arrangements are being made by a commission of six, directed by Robert E. Marshak, chairman of the department of physics and astronomy at the University of Rochester.

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Russian studies center. The University of Illinois has established a Center for Russian Language and Area Studies with the support of the U.S. Office of Education. Ralph T. Fisher, associate professor of history at the university, will direct the center. The programs will give special consideration to the needs of students in scientific and technical fields.

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Natural resources group. The appointment of a 29-member Advisory Committee on Natural Resources of the Democratic Advisory Council has been announced by the Democratic National Committee. The new group, which is headed by former Assistant Secretary of the Interior C. Girard Davidson of Oregon, will prepare a policy statement on natural resources problems for the Democratic party and will also prepare planks on natural resources for the Democratic platform in the coming campaign.

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New congress. The 1st international Congress of Histochemistry and Cytochemistry will meet in Paris from 28 August to 3 September. The congress, which is being organized through the Société Française d'Histochimie and other national histochemical societies, will demonstrate the practical applications of recent research. The program includes sections on physical problems, biochemical applications to histochemistry, and applied histochemistry. Inquiries should be sent to R. Wegmann, Secretary General, 45, Rue des Saints-Pères, Paris, 6e.

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Radiation data. The U.N. Scientific Committee on the Effects of Atomic Radiation, established by the General Assembly in 1955, wants to receive any data relevant to radiation research. The committee does not carry on research but depends on the work of scientists in the member states for the material which it studies and collates. Scientists who are interested in contributing information on physical or biological topics should send four copies of their reports to Edward R. Gardner, Director, Office of Special Projects, U.S. Atomic Energy Commission, Washington 25, D.C.

Scientists in the News

The following scientists received the first Ernest Orlando Lawrence Memorial Award of the Atomic Energy Commission on 27 June. The award consisted of a medal, a citation, and $5000 for each recipient.

Harvey Brooks, dean of engineering and applied physics, Harvard University, for his work on reactors.

John S. Foster, Jr., associate director of the Lawrence Radiation Laboratory, Livermore, Calif., for work in developing atomic weapons.

Isadore Perlman, associate director of the Lawrence Radiation Laboratory, for the isolation of plutonium and transplutonic elements.

Norman F. Ramsey, Jr., associate professor and professor of physics, Harvard University, for contributions to experimental nuclear physics.

Alvin M. Weinberg, Oak Ridge National Laboratory, for contributions to nuclear reactor theory.

Victor H. Baptist, of Don Baxter Laboratories, Glendale, Calif., and **Otto E. Lobstein**, of Chem-Tech Laboratories, Beverly Hills, Calif., have been named visiting research professors in the department of chemistry of the University of Redlands, Redlands, Calif.

Robert L. Folk, associate professor of geology, University of Texas, received the President's Award of the American Association of Petroleum Geologists, which is given each year to the

author, or authors, below the age of 35, whose article in the association's *Bulletin* of the preceding year is considered the most significant contribution to petroleum geology. Folk's award-winning article, "Practical Petrographic Classification of Limestones," appeared in the January 1959 issue.

Adriance S. Foster, chairman of the department of botany at the University of California (Berkeley), has been elected to honorary membership in the Zoologisch-Botanische Gesellschaft in Vienna for his studies in plant anatomy and related fields.

Harry Hookway, assistant director of the British National Chemical Laboratory, has been named director of the United Kingdom Scientific Mission in Washington to succeed **E. S. Hiscocks**, who will return to Britain in the fall to become director of the Tropical Products Institute. Hookway is known for his work on polymers, ion-exchange resins, and saline water conversion.

Weikko A. Heiskanen, director of the Institute of Geodesy, Photogrammetry, and Cartography at Ohio State University, received an honorary degree from Uppsala University, Uppsala, Sweden, on 31 May.

R. C. Fuller, scientist in the biology department of the Brookhaven National Laboratory, has been named professor of microbiology and chairman of the department at Dartmouth Medical School. He is currently on leave as a senior postdoctoral fellow in the department of biochemistry at the University of Oxford.

J. W. Foster, professor of bacteriology at the University of Texas, is making a survey of microbiology in Japan this summer. His visit is sponsored by the Microbial Chemistry Research Foundation of Japan and will include lectures at universities and visits to institute and industrial microbiology laboratories.

Peter King, associate director of research for materials of the Naval Research Laboratory, has been awarded the Distinguished Civilian Service Award for his work in developing the long-range detection program which enabled the United States to discover the first atomic explosion by a foreign power, in 1949.

James A. Miller, professor of anatomy at Emory University, has accepted the chairmanship of the department of anatomy at Tulane University.

Edward S. Knipling, director of the entomology research division of the Agricultural Research Service, Beltsville, Md., and **Raymond C. Bushland**, head of the service's research program on insects affecting livestock, at Kerrville, Tex., received the $10,000 Hoblitzelle National Award in the agricultural sciences on 18 May. The entomologists were selected by the Texas Research Foundation for their development of the "male-sterile" technique to eliminate the screwworm fly which infests cattle.

Homer E. Newell, assistant director of space sciences at the National Aeronautics and Space Administration, is now deputy director of space flight programs.

Joseph B. Casagrande, staff member of the Social Science Research Council, New York, has been appointed professor of anthropology and head of the department at the University of Illinois.

Kenton L. Chambers, assistant professor in the department of botany at Yale University, has been appointed associate professor and curator of the herbarium at Oregon State College.

I. I. Rabi, Higgins professor of physics at Columbia University and winner of the 1944 Nobel Prize in physics, received the 1960 Barnard Medal of the university at Columbia's 206th commencement. Rabi was cited as the "principal author of a revolution in experimental and theoretical physics."

Georg and **Eva Klein**, of the Karolinska Institutet in Stockholm, have been selected to receive the third annual Bertha Goldblatt Teplitz Award by the Ann Langer Cancer Research Foundation of Chicago. Georg Klein, who is professor and head of the Institute for Tumor Biology of the Karolinska Institutet Medical School, and his wife, who is associate professor of medical cell research, will each receive $500.

Theodore Delevoryas, assistant professor of botany at Yale University, has been named associate professor of botany at the University of Illinois.

The Association of Universities for Research in Astronomy, Inc. (AURA), has named **Nicholas U. Mayall**, astronomer at Lick Observatory, as director of the Kitt Peak National Observatory. He succeeds **C. D. Shane**, president of AURA and astronomer at Lick Observatory, who has been acting director since the resignation of Aden B. Meinel in March.

Recent Deaths

James T. Case, Santa Barbara, Calif.; 78; professor of radiology at Northwestern Medical School from 1912 to 1947; director of the Memorial Cancer Foundation, Santa Barbara; fellow of the Royal Society of Medicine and former president of the American College of Radiology; 24 May.

Donald S. Childs, Syracuse, N.Y.; 72; professor emeritus of radiology at Syracuse University; attending roentgenologist at St. Joseph's Hospital; secretary-treasurer of the Radiological Society of North America; 27 Apr.

John Elmendorf, Baltimore, Md.; 67; staff member of the division of public health of the Rockefeller Foundation, 1920–53; former director of the National School of Hygiene of Colombia; expert on malaria; 27 May.

John F. Fulton, Hamden, Conn.; 60; Sterling professor of the history of medicine at the School of Medicine of Yale University; neurophysiologist and former chairman of the department of physiology at Yale; developed aeromedical research at the Yale Medical School; 29 May.

Harold E. Jones, Paris, France; 65; director of the Institute of Human Development and professor of psychology at the University of California, Berkeley, since 1927; pioneer in child development studies; 7 June.

Dudley J. Morton, New York, N.Y.; 76; former associate professor of anatomy at Columbia University and research associate of the American Museum of Natural History; orthopedic surgeon; 22 May.

Howard T. Orville, Baltimore, Md.; 58; chairman of the Advisory Committee on Weather Control, 1953–58; pioneer in the use of high-altitude balloons in meteorology; 24 May.

Joseph P. Weinmann, Chicago, Ill.; 64; professor of pathology in the College of Medicine and head of the Division of Oral Pathology in the College of Dentistry of the University of Illinois; 15 May.