News of Science

Sputnik II

On 3 November the U.S.S.R. launched its second earth satellite. Reportedly shaped like a rocket and carrying a dog as passenger, Sputnik II weighs 1120.29 pounds and is traveling at a rate of about 17,840 miles an hour. It is circling the earth every 103.7 minutes in an orbit that is approximately 1056 miles out at its furthest point. Many scientists have made public statements about the latest space vehicle, and some of these comments are reproduced here.

Alan T. Waterman, director of the National Science Foundation, praised the accomplishment and said that the world would "gain valuable knowledge" from the dog-carrying satellite. He said further:

"It is now clear, as we have anticipated, that the Russians have been working with great determination on a planned series of satellite undertakings. They again deserve credit for a difficult engineering accomplishment."

Joseph Kaplan, chairman of the United States Committee for the International Geophysical Year, applauded the Soviet launching as a "significant scientific achievement." Referring to a Soviet announcement that Sputnik II is part of the U.S.S.R.'s participation in the IGY, Kaplan said:

"Preliminary information to assist all nations in tracking the satellite has already been released, and we shall accordingly look forward to a full exchange of data connected with the scientific experiments which are being conducted with the aid of this satellite."

In Japan, Masashi Miyaji, head of the Tokyo Astronomical Observatory, stated: "We are very unhappy that the Russians did not give any notice for both launchings." However an IGY spokesman reminded the Associated Press that neither the U.S.S.R. nor the United States is required by IGY agreements to give advance notice of a specific launching time.

John P. Hagen, director of the Navy's Project Vanguard, which is responsible for developing this country's satellite, said that Sputnik II and its weight came as no surprise to American scientists. He warned that it was unwise "to go off the deep end and say this is a tremendously different achievement than the first launching. What they have done today doesn't change our estimate of their capabilities. They now have two gadgets in the air. We have yet to put our first up. . . . We should diligently pursue our own program—it's a well-thought-out scientific program. At the end of the Geophysical Year, we can take stock to see who has the better scientific results. I have a lot of confidence in the capability of our people."

John Rinehart, assistant director of the Smithsonian Astrophysical Observatory, headquarters for our satellite tracking organization, commented:

"No matter what we do now, the Russians will beat us to the moon. . . . I would not be surprised if the Russians reached the moon within a week." He said further that the United States has the technological skills to match the Russian satellite accomplishment and that:

"Some leader must arise and get the program highly organized to do the job. . . . I think this is sufficiently an emergency to have the entire program put under a single-type project. This is a matter of national pride. If we want to maintain the respect of the rest of the world we must do this."

J. Allen Hynek, associate director of the Smithsonian Astrophysical Observatory, did not think a moon rocket project would be undertaken by the Russians as soon as Rinehart did, but he said the launching proved the Russians certainly have the potential for firing an intercontinental ballistic missile. He went on to say: "I certainly would think its larger size means it will be more easily visible to the naked eye." Unlike Hagen, Hynek commented that the biggest surprise to him was the size of the new satellite. He said in closing: "The Russians have demonstrated that they can put an object of tremendous weight into the sky, and it looks as if they are that much closer to the ball park."

Edward Teller, associate director of the University of California Radiation Laboratory, said:

"Launching of the two satellites will not be the last of the Russian achievements. They have lived up to their boasts in the past and likely will continue to do so." Only a few hours before the launching of Sputnik II, Teller told a group of elementary-school science teachers at San Francisco State College that the U.S.S.R. might hit the moon before the week was out. He then warned: "If they surpass us in technology in the year ahead, there is very little doubt who will determine the future of the world."

Ronald Bracewell, an astronomer and associate professor of electrical engineering at Stanford University, acted as spokesman for a group of Stanford specialists when he said:

"We have come to the conclusion that this new satellite . . . will be up there for our lifetime and probably a lot longer —100 years or more."

AAAS-Campbell Award for Vegetable Research

The new AAAS-Campbell Award for Vegetable Research has just been established by the Campbell Soup Company and will be presented for the first time this year. The award consists of $1500 and a bronze medal, given for "an outstanding single research contribution, of either fundamental or practical significance, relative to the production of vegetables, including mushrooms, for processing purposes, in the fields of horticulture, genetics, soil science, plant physiology, entomology, plant pathology, or other appropriate scientific areas." Work in food technology and work in food processing are *not* included; the emphasis is on basic research and its application to crop production, prior to crop utilization or crop production.

The one or more papers reporting a candidate's single research contribution should have been published, or accepted for publication, in a recognized scientific journal not more than 2 years prior to the date the award is to be granted. Competition is open to all residents of the United States and Canada. Travel expenses are provided for the recipient to attend the AAAS meetings to receive the award in person.

The Award Committee is composed of a chairman appointed by the AAAS and official representatives of six affiliated societies: the American Phytopathological Society, the American Society for Horticultural Science, the American Society of Agronomy, the American Society of Plant Physiologists, the Entomological Society of America, and the Genetics Society of America.

Members of this year's Award Committee are as follows: Louis P. Reitz (vice-president for AAAS Section O—Agriculture), USDA, Agricultural Re-

search Service, Beltsville, Md., chairman; G. J. Haeussler (Entomological Society of America), USDA, Agricultural Research Service, Beltsville, Md.; Sterling B. Hendricks (American Society of Plant Physiologists), USDA, Plant Industry Station, Beltsville, Md.; Iver J. Johnson (American Society of Agronomy), Iowa State College, Ames; F. C. Stark, Jr. (American Society for Horticultural Science), University of Maryland, College Park; G. Ledyard Stebbins, Jr. (Genetics Society of America), University of California, Davis; E. E. Wilson (American Phytopathology Society), University of California, Davis. Nominations for the Campbell Award may be made to any member of the Award Committee.

NSF Federal Manpower Report

Some 142,000 Federal employees, including 37,000 scientists and engineers, were engaged in the conduct of research and development and related activities in 1953–54, according to the National Science Foundation. The figure represents 7 percent of the total Federal personnel in that fiscal year.

In addition, 77,000 persons, or 2 percent, of all military personnel were also engaged in scientific activities. Of this total, approximately 9000 were scientists and engineers, while the rest were supporting personnel.

Conservation Fellowships

The National Wildlife Federation has announced its 1958–59 scholarships and fellowships in conservation, for which an applicant need not necessarily be enrolled at an institution of higher learning if his project or proposal has merit in the cause of conservation. Completed application forms must be postmarked on or before *31 December*. Application blanks and further information may be obtained from Ernest Swift, Executive Director, National Wildlife Federation, 232 Carroll Street, NW, Washington 12, D.C.

Aeronautical Fellowship

The Institute of the Aeronautical Sciences has announced the availability of its Flight Test Engineering Fellowship at Princeton. An applicant must be a U.S. citizen and have a bachelor's degree in engineering by June 1958. The stipend is $4700 for a 2-year period. Applications, endorsed by a sponsor, must be mailed *before 1 March* to: Flight Test, Institute of the Aeronautical Sciences, 2 E. 64 St., New York 21, N.Y.

Jackson Imports British Mice

The Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Me., has announced that mice carrying five genes never before available in the United States were imported from England last summer and will join the main laboratory colony in the near future. These particular genes, of significant value in physiological and developmental studies and in chromosome mapping, are Hertwig's Anemia, Matted, Patch, Dilute Lethal, and Oligosyndactyly.

Due to the ever-present danger of introducing disease into the Jackson mouse colony, it is necessary that an elaborate quarantine procedure be carried out before imported animals are fully accepted. For about 8 weeks the 48 new animals were kept in special quarters well away from the Bar Harbor laboratories. There they were subjected to a series of tests that proved that they were free of ectromelia, or mouse pox, the disease most feared. Now the imported mice are in the isolation ward of Jackson Memorial's main laboratory.

Pharmacognosy Awards

Competition for the three annual $250 Edwin L. Newcomb Memorial Awards in Pharmacognosy has been announced by the American Foundation for Pharmaceutical Education. These are open to undergraduate and graduate pharmacy students, and to teachers, research workers, and industrial scientists. Published and unpublished papers on pharmacognosy must be submitted *before 1 February* to the chairman of the Awards Committee, H. W. Youngken, Massachusetts College of Pharmacy, Boston, Mass.

Committee on Chronic Illness and Health of the Aged

Surgeon General Leroy Burney has appointed a 13-member National Advisory Committee on Chronic Illness and Health of the Aged that includes specialists in medical education, geriatrics, physical and industrial medicine, nursing, care of the aged, public health, and public welfare. The committee members will review the medical, social, and economic problems associated with illness and aging, and will consult with and advise the Surgeon General on the development of Public Health Service policy and programs in these fields.

One out of every 25 persons in the United States today has been disabled for more than 3 months with some chronic illness. Furthermore, since 1900 the number of people 45 and over has increased 3½ times. Today more than 40 million people, approximately 30 percent of the total population, are in this age group. By 1970 their number is expected to increase to 61 million. Moreover, 40 percent of the chronically ill in this country are persons 65 years of age and over, of whom there are now 14 million in the United States.

News Briefs

UNESCO has announced that the emphasis of this year's Human Rights Day, 10 December, will be on educational institutions, teachers, and other groups concerned with education. It is hoped that educationalists will help to lay the groundwork for a widespread and effective observance next year of the tenth anniversary of the adoption of the Universal Declaration of Human Rights.

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The Society for the Rehabilitation of the Facially Disfigured has given New York University–Bellevue Medical Center a $1-million grant, which was made possible by the Avalon Foundation, to put up a new Institute of Reconstructive Plastic Surgery. The institute will be located in a new 19-story hospital to be built at the Medical Center. The grant also provides for an endowed chair of plastic surgery, to be known as the Lawrence C. Bell Chair. The first incumbent will be John M. Converse, professor of surgery at N.Y.U. College of Medicine.

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A new electronic company, Digital Equipment Corporation, has been established in Maynard, Mass., with the backing of the American Research and Development Corporation of Boston. The new company was organized to provide testing equipment for the U.S. computer industry. Officers include Kenneth H. Olsen, president, and Harlan E. Anderson, vice president; both have been active in the design and application of advanced computers and were staff members of the Lincoln Laboratory of the Massachusetts Institute of Technology.

Scientists in the News

GEORGE B. PEGRAM, pioneering nuclear physicist and vice president emeritus of Columbia University, has received the first Karl Taylor Compton Gold Medal of the American Institute of Physics. Presentation was made by Britain's Prince Philip in conjunction with the dedication of the institute's new building at 335 E. 45 St., New York.

ERNEST P. PICK, internationally known pharmacologist of the Merck Institute for Therapeutic Research, has received the Schmiedeberg award of the