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-