Rockets, Large and Small

Administration officials have described their ideas on a rocket to send a manned capsule to the moon. Space Agency officials told the Senate Science and Aeronautics Committee that the "Nova" rocket would stand about 120 yards high, that is the length of a football field, including the end zones. The first ("booster") stage would consist of eight rockets, each producing 1.5 million pounds of thrust. The second stage would use two such rockets. These would be topped by three further stages, requiring progressively small rocket clusters. The payload, of course, would have to include a rocket to bring the manned capsule back from the moon, but this would require only 1/500 the power of the original rocket, both because of the smaller gravitational pull by the moon and because the capsule would quite quickly reach a point where it would naturally fall toward the earth, rather than back toward the moon.

At the other end of the rocket spectrum, the Army last week demonstrated a "rocket belt" strapped on the back of a man. Harold Graham, a test engineer for Bell Aerosystems, which developed the rocket, made a 14-second demonstration journey in which he floated up 15 feet, sailed over a truck, and at about 20 miles an hour, was wafted to a landing about 50 yards away.

Announcements

Writing in the natural sciences and their engineering and technological applications, exclusive of the field of medicine, are eligible for the 1961 **AAAS Westinghouse Science Writing Competition**. The two $1000 awards, one for magazine writing and one for newspaper writing, will be presented at the annual dinner of the National Association of Science Writers on 27 December in Denver, Colorado. A magazine article or a newspaper or press association report, exclusive of those appearing in trade journals or professional scientific magazines, must have appeared in publications within the United States between 1 October 1960 and 30 September 1961 in order to be eligible. Each entrant may submit for consideration as many as three separate articles or series of articles published during the contest year. Persons other than the author may nominate entries. Deadline for all entries is *10 October 1961*.

In addition to the cash awards, citations will be awarded the newspaper and magazine in which the winning articles appeared. Honorable mention citations or other special recognition for distinguished service to science journalism will be made at the discretion of the judges. (Graham DuShane, AAAS, 1515 Massachusetts Ave., NW, Washington 5, D.C.)

A **fishery research vessel** is being built under the new national oceanographic program in which concerted attention will be given to the national effort in basic and applied ocean research. The vessel was designed by biologists and naval architects to meet the needs set forth by the fishery scientists of the Department of the Interior's Bureau of Commercial Fisheries. Its task will be to perform the numerous studies necessary to determine the distribution and variation in abundance of fish in the bottom Northwest Atlantic; to conduct various phases of oceanographic research in water temperature and factors affecting plant and animal life in the sea; and to obtain information on surface and subsurface water movements. The ship will cost $1,775,000, including basic laboratory and research facilities. It is scheduled to begin operating out of the Woods Hole Oceanographic Institution on Cape Cod in approximately 15 months.

A high-speed **electronic computer**, reported by the Atomic Energy Commission to be the largest and fastest situated on a university campus in this country, has been placed in operation at Rice University. The prime objective of the machine, now being used by the university's scientists and engineers, is to handle computations in theoretical physics and chemistry of particular interest to the Atomic Energy Commission's physical research program. It is also being used as a research tool in exploring ways to improve computers. It is anticipated that in the near future the machine will be made available to scientific personnel engaged in fundamental research in the Southwest.

Half of the cost of assembling the computer, approximately $250,000, was provided by the AEC; the remainder was provided from university sources.

The fifth volume in a continuing survey of **Soviet literature on air pollution** and related occupational diseases, being conducted by Ben S. Levine, is now available through the Office of Technical Services. The latest survey contains translations of 45 articles in six sections dealing with the concepts which form the basis of air pollution prevention in the U.S.S.R., the methods of approach, the scope and plan of the work, and progress evaluation. (O.T.S., U.S. Department of Commerce, Washington 25, D.C. $3.50)