

ditions. She will be carrying two aircraft which can be used for the transport of men and material, but if the ship is held up by bad ice conditions their first task will be to re-supply the base. Then reconnaissance flights are to be made southward to select a site for a field hut which will be flown in at the end of the season. Both aircraft will winter at the base and can therefore support field parties making topographical and geological surveys in the remoter regions during the early part of the 1960-61 season. The *Beaver* aircraft is fitted with a Williamson vertical camera so that photographic cover can be obtained over the more inaccessible areas.

Geological and topographic surveys will also continue from a number of other stations and, in addition to the glaciological programme at Halley Bay, glaciologists will be working from Hope Bay, Admiralty Bay and King George Island.

In the coming year biological work will have less emphasis than in some years, but the marking and population counts of fur seals and elephant seals will continue. A small project concerned with soil ecology is to begin at Signy Island. Also at Halley Bay, where there is a rookery of 10,000 emperor penguins, a biologist has been appointed to continue the study of the species. In particular, an examination of the endocrinology of the bird and a further collection of embryological material will be made.

In each southern summer, ice conditions are different, and it is this which often hinders the planned programme. Last year was a bad year; this year we hope for better things, but in any event it is certain that the only way to succeed is to keep up the pressure and be ready to take advantage of any relaxation which Nature may afford.

VIVIAN FUCHS

American Programme

A STATEMENT released by the National Science Foundation gives details of grants for scientific investigations either in or associated with Antarctic regions. Logistic support will again be the responsibility of a U.S. Navy support force under Rear Admiral David M. Tyree, who has recently taken over from Rear Admiral George J. Dufek. The grants total 3,170,069 dollars, of which approximately one-third goes to support the meteorological programme and one-quarter to glaciological projects. Greater emphasis than formerly is placed on geology, cartography and biology, which is in accord with the recommendations of the Special Committee on Antarctic Research of the International Council of Scientific Unions.

Among new projects mentioned are a United States scientific expedition to the Bellinghousen Sea which will include specialists in biology, geology, cartography and oceanography.

The International Geophysical Year pattern of over-snow traverse operations will be continued in Marie Byrd Land and Victoria Land. Biological investigations on the ecology of the Ross Sea area and on land invertebrates of the McMurdo Sound and Hallett areas will be helped by the recently established U.S. Antarctic Biological Research Laboratory at McMurdo.

The investigations will be spread over seven Antarctic stations of which three are fully and one jointly under the direction of the United States. Co-operation with other countries in these investigations in both scientific and logistic spheres has been a notable feature of the U.S. Antarctic effort, and this appears likely to continue.

NEWS and VIEWS

The Third Russian Space Rocket

A MULTI-STAGE space rocket was launched in the U.S.S.R. at about 02h. U.T. on October 4. When the last stage, weighing 1,553 kgm. (3,424 lb.) without fuel, had reached a speed slightly less than escape speed from the Earth, an instrumented vehicle weighing 278.5 kgm. (614 lb.) separated from it. This vehicle entered an elongated elliptic orbit which took it into the vicinity of the Moon. Its nearest approach to the Moon occurred at 14h. 16m. U.T. on October 6, when it was about 7,000 km. (4,300 miles) from the surface of the Moon, at selenographic longitude 137° W. and latitude 12° S. After leaving the vicinity of the Moon, the vehicle entered a new elliptic orbit about the Earth, with an apogee distance of 470,000 km. (292,000 miles) from the surface of the Earth, attained at about 00h. U.T. on October 11, and a perigee distance of 40,000 km. (25,000 miles), attained at about 17h. U.T. on October 18. The orbit is inclined at about 75° to the Earth's equator and the period of revolution is about 15.4 days. The vehicle has been designated Earth-satellite 1959 0. The orbit of the spent rocket is not known. The instrumented vehicle, which the Russians have referred to as an "automatic interplanetary station", carried apparatus to photograph the part of the Moon which is never seen from the Earth, and also

apparently performed other scientific experiments, of which details have not yet been given. The vehicle had radio transmitters operating on 39.986 Mc./s. and 183.6 Mc./s., the power being supplied partly by chemical and partly by solar batteries.

Research Association of British Paint, Colour and Varnish Manufacturers: Dr. L. A. Jordan, C.B.E.

DR. LOUIS ARNOLD JORDAN, the founder-director of the Research Association of British Paint, Colour and Varnish Manufacturers, has relinquished his appointment after thirty-three years. The Paint Research Station at Teddington, at present being further extended, stands in testimony to his achievement. Educated at Alderman Newton's Greencoat Foundation School, Leicester, he proceeded as a Royal scholar in 1910 to the Royal College of Science, where he was Tyndall prize-man in physics and Frank Hatton prize-man in chemistry. He received the D.Sc. (London) in 1921. During the First World War he was concerned with explosives, and certain 'gas' problems; thence to Boots Pure Drug Co., Ltd., and later to the British Xylonite Co., Ltd., to start an investigation which resulted in the establishment of the British synthetic camphor industry. From 1923 until the establishment of the Paint Research Association in 1926 he was scientific adviser