

6. In preparation for future studies, low level aerial surveys were flown by Spartan Air Services over the area in the immediate vicinity of Resolute. Flights were made at 5,200 feet above sea-level and the photographs will be a valuable help in future studies.

7. Some data on the preferred orientation of pebbles in various types of patterned ground, and in solifluction lobes were collected.

The program for the study of periglacial geomorphology of the Resolute area will be continued over several years and intensified as experience is gained, and equipment and instruments become available. Detailed reports will be published as the data are processed.

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VICTORIA LAND TRAVERSE, ANTARCTICA, 1959-60

Although the International Geophysical Year closed in December 1958, antarctic research and exploration did not. Through the Arctic Institute of North America and under the sponsorship of the United States Antarctic Research Program, antarctic science has continually developed since that time.

During the antarctic summer of 1959-1960, the Arctic Institute administered two ground traverses whose purpose was to penetrate unexplored regions of the continent and to gather as many scientific data as time, logistics, and nature permitted. The first of the two parties departed from New Zealand's Scott Base on October 16, 1959 crossing part of the Ross Ice Shelf toward the Skelton Glacier. (The second

party started from Byrd Station in November 1959 and explored the region toward the Amundsen Sea.) Ten men drove three tracked Sno-Cats towing one 2½-ton sledge each. On October 27 the party reached 79°05'S. 162°15'E. at the foot of the Skelton Glacier. After traversing up glacier through heavily crevassed areas, they reached the first of three fuel caches laid down by U.S. Navy and Air Force planes. After continuing from the first cache at the edge of the Victoria Land Plateau, the traverse group began the journey to B-61, end station of the French traverse of 1958/9, over 600 miles to the west.

The journey to the French station and then east toward the head of Tucker Glacier covered much of Victoria Land and part of Terre Adélie. This part of the journey was largely at elevations well over 8,500 feet. Seismic soundings were made at regular intervals to determine ice thickness, and gravity and magnetic readings were taken.

On January 30, 1960 the party discovered a new range of mountains, first sighting them in the vicinity of 72°15'S. 159°45'E. This new range has been tentatively named the Arctic Institute Range, pending official acceptance. The mountains seen trend geographically from north to south, roughly parallel to the Ross Sea Coast in the east. Geological investigation revealed three groups of rocks: flat lying sediments, massive intrusives, and metasediments intruded by pegmatites.

On February 10, 1960 during aerial evacuation of the remaining eight men, a new and sizeable glacier was discovered between the party's last position at 72°38.0'S. 161°31.8'E. and Rennick Bay on the Oates Coast. This glacier is tentatively named Rennick Glacier. It is at least 160 miles long and between 20 and 40 miles wide.

The maximum elevation reached during the traverse was approximately 9,200 feet and the minimum daytime temperature -43°C. A total of 75 seismic reflection and refraction shots were made and over 450 gravity and magnetic stations established. The maximum ice thickness measured was over

10,000 feet. The Victoria Land Traverse party remained in the field 118 days, during which they travelled a total of 1,530 miles, most of it in formerly unexplored territory.

In addition to the scientific results of the expedition, much valuable experience was gained regarding the logistics of this type of undertaking in a polar environment. A complete and detailed

report of the logistical aspects has been the first of a number of contributions soon to be published by scientists of the Victoria Land Traverse. This logistics report is on file at the Washington, D.C. office of the Arctic Institute.

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New polar training ship

On Friday March 18, successful trials were run by the training ship *Rimja Dan*, built by the Lürssen Werft, Bremen, for J. Lauritzen, Copenhagen. Like her sister ships, the *Fenja Dan* and the *Manja Dan*, the *Rimja Dan* will be a training ship for 16 apprentices. The *Fenja Dan* has deck apprentices on board, whereas the *Manja Dan* and the *Rimja Dan* train mess apprentices.

Of 4,275 tons d.w., *Rimja Dan* is like the rest of the Company's polar fleet ice-strengthened far beyond the requirements of the Finnish Ice Class I. A. Fully loaded, she will have a speed of 13.5 knots. She is propelled by a B. & W. Diesel engine, type 550 VTBF 110,

developing about 3,200 i.h.p., and is built to the highest class of British Lloyd's Register.

Engine and living quarters are placed aft, the latter being equipped with the usual modern conveniences for navigation in tropical and arctic climates. There will be three holds, served by four hatches and two 5-ton derricks for each hatch. The ship is further equipped with all modern navigational instruments, heavy cargo-loading gear, and a special crew's nest in the foremast for navigation in ice.

The crew are accommodated in single cabins, and the apprentices in two-berth cabins. There is a special mess-room for the apprentices, which can also be used for educational purposes.