

Institute News

THE ICE FIELD RANGES RESEARCH PROJECT 1964

The Ice Field Ranges Research Project concluded its fourth summer of research in the St. Elias Mountains, Yukon Territory, Canada, on September 2, 1964. The project is sponsored jointly by the Arctic Institute of North America and the American Geographical Society and its director is Dr. Walter A. Wood. The studies of a glacierized area in terms of its total environment that were begun in 1961 were successfully continued. The base camp at the southern end of Kluane Lake (870 m.) was opened on May 29. In addition to this there were three glacier stations, Divide Station (2640 m.), Seward Station (1850 m.), and Kaskawulsh Station (1730 m.), and four satellite camps located at glacier termini (920 m. and 915 m.), and on the glaciers (3600 m. and 2420 m.). All except one of them were established and supplied by the Helio Courier H391B aircraft of the Institute.

Twenty-five persons took part in the work in 1964. Of the fourteen students, representing seven colleges and universities, who participated, six are working for graduate degrees. The remaining students assisted the graduate candidates and the Institute research and administrative personnel. Members of the Institute staff, Mr. M. Mellor (U.S. Army Cold Regions Research and Engineering Laboratory), Drs. C. Bull (Institute for Polar Studies, The Ohio State University), and M. Marcus (The University of Michigan) supervised the research projects.

The following investigations were carried out:

Glacial geology (Kluane base camp).

Pleistocene glacial chronology of the Shakwak Valley.

Meteorology and climatology (all stations and camps).

Synoptic weather observations.
Micrometeorology.

Glaciology (Divide, Seward, Kaskawulsh stations; Crevasse and Luania camps).

Standard pit studies, accumulation and ablation.

Diagenesis of snow and firn.

Optical measurements on snow.

Study of transverse-crevasse mechanics.

Study of the confluence of the north and middle arms of the Kaskawulsh glacier.

Tritium sampling.

Geophysics (Divide and Kaskawulsh stations).

Seismological studies.

Gravimetry.

Surveying (Divide, Kaskawulsh, and Kluane stations; Crevasse camp).

Aerial photography.

Short-term variations of surface velocity.

Study of the effect of weather elements on vertical atmospheric refraction.

During the later part of July the project was visited by Dr. Akira Higashi and five scientists from Hokkaido University, Sapporo, Japan. They carried out measurements of snow stratigraphy, of the impurity content of snow by electrical conductivity methods, and did particle sampling with emphasis on extraterrestrial inclusions.

In mid-August the aircraft of the Institute had to make a forced landing at 2440 m. on the Hubbard Glacier. A new engine was flown in and successfully installed. Uncertain weather and logistics demands made it advisable for the personnel at the outlying camps to walk back to the Kluane base camp, over distances of up to nearly 75 miles. This was done without affecting the scientific work adversely. When later the aircraft was back in service, two men, who had remained at Divide Station were flown out and the station was closed.

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