P. D. Baird to spend a night in an igloo about 600 yards away from the camp. The maximum temperature experienced up to June 14 at Camp A1 was 26°F and the minimum -13°F.

Gifts to the Institute

The Librarian would like gratefully to acknowledge donations to the Institute Library from the following friends and Associates: Mr. Louis Bailey, Mr. Gerald Birks, and Mrs. R. A. Davies.

Mr. Ross Hennigar has kindly donated a caribou-skin parka to the Museum.

The Institute would also like to express its appreciation of a display on loan to the Museum from the Iron Ore Company of Canada.

NORTHERN NEWS

Award of Royal Geographical Society's gold medals for 1952

The Royal Geographical Society has announced that Her Majesty the Queen has approved the award of The Founder's Medal to P. D. Baird, Director of the Montreal Office of the Arctic Institute of North America, for explorations in the Canadian Arctic, and The Patron's Medal to Count Eigil Knuth, leader of the Danish expedition to Peary Land 1948–50, for explorations in northern Greenland and for his contributions to Eskimo archaeology.

Banks Island party

Early in May, T. H. Manning, accompanied by Capt. I. M. Sparrow of the Royal Engineers, England, left Edmonton by R.C.A.F. aircraft for Sachs Harbour, Banks Island, to continue a coastal survey of the island for the Defence Research Board of Canada. Last summer Mr. Manning, accompanied by Andrew Macpherson, had begun the survey by canoe along the west and north coasts. At Castel Bay they were forced by an early freeze-up to leave their canoe and return overland to Sachs Harbour. This year Mr. Manning hopes to complete the trip around the island. On arrival in Banks Island the party planned to transport their supplies by Eskimo dog team to Castel Bay.

Ellesmere Ice Shelf party

In April 1953 a two-man party began a study of the ice shelf of northern Ellesmere Island. Geoffrey Hattersley-Smith, Defence Research Board of Canada, and Robert Blackadar, Geological Survey of Canada, were flown to Thule by U.S.A.F. aircraft, in order to pick up two Eskimo and their dog teams. They then continued by air to Alert where they planned to start their survey, returning in the fall.

Hattersley-Smith will make a glaciological study of the ice shelf, which is believed to be the source area of the arctic ice islands.[1] He plans to measure the extent and thickness of the shelf and to determine whether it is at present increasing in size. Blackadar will assist this work and will also examine the geology of the coastal belt.

Ice islands observed on R.C.A.F. polar flights

During this year's polar flights by the R.C.A.F. Specialist Navigation Course from the Central Navigation School, the following information on ice islands was obtained.

On 25 April a reconnaissance of T1 was carried out while on a flight around

[1]See *Arctic*, Vol. 4 (1952) pp. 67–103, 183–7, and 211–23.

Ellesmere Island. T1 was found at the entrance to Yelverton Bay on a bearing of 308° True and 27 miles from Mitchell Point, about 100 miles farther west along the Ellesmere Island coast than its position on 28 April 1952. Its shape and size had not changed. There is a possibility that T1 may ground on the west side of Yelverton Bay east of Alert Point as it is only about 5 miles from the shore and its westward movement appears to be blocked by Alert Point.

Also on the same flight a small ice island (approximately 2 by 4 miles) was sighted about 8 miles northeast of Franklin Island in Kennedy Channel. This island, the first to be sighted in the channels between Ellesmere Island and Greenland, had the distinctive corrugated pattern and was easily spotted among the old ice floes. At the time Kennedy Channel was covered by a sheet of rough ice.

On 26 April, while returning from a flight over the Pole, an ice island was sighted through the clouds just off the west coast of Axel Heiberg, between Good Friday Bay and Skrugar Point. Although reconnaissance was very limited the island appeared to be about 4 by 8 miles and was easily recognized by its undulating surface. This island is the largest discovered to date along the west coast of Axel Heiberg.

KEITH R. GREENAWAY

Blue Dolphin Labrador expedition—winter project 1953

During March and April 1953 an expedition led by David C. Nutt and sponsored by the U.S. Office of Naval Research and the Arctic Institute carried out oceanographic studies of the winter regime in the tidal estuary of Lake Melville, Labrador. This was a continuation of investigations on the Labrador coast for the past four summers[1] and of the 1952 winter expedition to Lake Melville.

The expedition flew from Westover, Mass., to Goose Bay with the U.S.A.F. on March 11, and on the 13th made a reconnaissance flight to observe ice conditions in Lake Melville and Hamilton Inlet. All personnel and equipment were then transferred by snowmobile to the settlement of North West River, which was the base of operations.

The party worked in two groups: David Nutt, Weston Blake, and two local guides spent sixteen days on a 300-mile trip by dog team along the south shore of Lake Melville to The Backway, Rigolet, and Hamilton Inlet, returning by Double Mer and the north shore of Lake Melville. Five oceanographic stations were occupied in Lake Melville and two in The Backway. In all areas the ice was found to be thinner than in the previous year. The maximum thickness measured on the lake was 35 inches, the minimum 9 inches, with the average around 25 inches. The maximum depth of snow on the lake was 24 inches, but wind had blown much away. An exceptionally early thaw this year enabled the party to occupy one station in Hamilton Inlet by boat.

The second party, consisting of Lawrence Coachman, John Snyder, and one guide worked at the western end of Lake Melville. Volume and flow measurements were made on the Kenamu, Hamilton, Goose, and North West rivers; in the last locality working from a boat, as this river remains open most of the winter. Four stations were occupied in Goose Bay, Terrington Basin, the Hamilton River, and Grand Lake. All oceanographic stations had previously been occupied during summer or winter visits to the area, except the one on Grand Lake. Snyder carried out studies of ice around North West River and Goose Bay, and photographed thin sections of ice to show crystal structure. Blake also continued his 1952 studies of the forest types and physiography in this area.

The various temperature profiles obtained indicate that warm layers are present in Lake Melville during the winter, particularly at the western end of the lake, while the water of Hamilton Inlet is uniformly cold.

The weather until late March was

[1] An account of this work during 1949 and 1950 written by David C. Nutt was published in *Arctic*, Vol. 4 (1951) pp. 3–11.

excellent, with little wind and only a few partially cloudy days. Temperatures were usually below freezing and a minimum of -12°F was recorded. Occasionally temperatures rose above freezing in the afternoon. However, in late March and April the weather became considerably warmer, and water and slush on top of the ice made travel difficult. The inner part of Hamilton Inlet was completely free of ice by April and the ice in the lake was breaking up rapidly. All indications pointed to an unusually early shipping season.

Both parties travelled by dog team—the first used a specially designed pyramidal tent which fitted over the oceanographic frame, and the other a Labrador-style wall tent. Portable wood-burning stoves of local manufacture were used for cooking and heating the tents and proved very satisfactory. One member of the party tried skis, which are seldom used in Labrador, and found them excellent for fast travel on the lakes. However, the wide Indian snowshoes are indispensable for camping and travel in the deep snow of the forests, as well as for beating down a trail for the dogs in deep snow.

In early April further sledging proved impossible, and the party was ferried back to Goose Bay by helicopter. It was originally hoped to continue the work in the Nain area of the coast, but this plan had to be abandoned because of the early thaw, and the party returned to Westover on April 10.

Sheep farming in Greenland

The following note was written by Miss M. C. Findlay, who spent the summer of 1952 *in west Greenland studying sheep farming on a research grant from the Institute.*

There are now 30 full-time and 250 part-time sheep farmers in the southernmost district of west Greenland. Many Greenlandic families are profiting by the addition of mutton to their diet, home-knitted sweaters have replaced sealskin anoraks among the most prosperous, and in the innermost parts of the fjords real farms, with sheep stalls, homefields, and vegetable gardens, are to be seen.

By the turn of the century the seal hunting that had been the mainstay of Greenlandic life was so impoverished that the west Greenlanders were facing grave difficulties. A substitute occupation was becoming an urgent necessity, and in 1915 the Greenland Department sent one Dane and a flock of 175 Icelandic sheep to west Greenland as an experiment.

Work was undertaken along two lines: hunters were encouraged to loan from 10–20 sheep from the new Sheep Breeding Station and to start keeping sheep as a side line – like Hebridean crofters, while young Greenlanders were taken onto the farm at the Station and trained to take up farming as a full-time job.

It is among full-time sheep farmers that the striking successes are to be seen, and as all of these farms are built on the sites of medieval Viking homesteads, it is as though the very Norsemen had come back with their flocks and herds and taken up domestic life again.

This is an apt comparison for the best Greenlandic farms of the present-day remind one constantly of their Icelandic counterparts, and the latter have continued in unbroken line since the same Vikings founded them in the tenth century.

The best Greenlandic farm (but there are only half a dozen such) stands on its fenced homefield with stalls and sheepfolds nearby. The farmhouse is of wood and may have 4–8 rooms in two storeys. Inside in the kitchen bread is baked and even butter and cheese made on occasion. The talk is of sheep: the number of lambs the flock has produced in the spring, for on this depends the number sold to the Royal Greenland Trading Company for slaughter in the autumn and their eventual cash income for the year, of round-ups, of hiring the Station's tractor and driver to clear new ground for hay, and of the low prices paid for their mutton. The farm dogs lie around the porch and the hens are scratching on the grass in front of the house. On the water of the fjord, a

couple of hundred yards away, is the motor boat that makes their connection with the trading store at the nearby settlement.

It is a dramatic change from the old seal hunting routine and it is rare to find a Greenlander who has gone straight, so to speak, from the kayak to the scythe. Sheep farming has taken the best of the young men and there is still room for more of them. Away from the coastline, inland, untenanted Viking sites are still waiting for the Greenlander who is brave enough to leave the outer coast with its seals and take to sheep.

Studies of the Grinnell Glacier, Baffin Island

During the summer of 1952 J. H. Mercer (leader) and W. Blake carried out glaciological and geomorphological studies in southeastern Baffin Island as part of the McGill University–Arctic Institute Carnegie Program. The party was flown to Frobisher Bay airbase by the R.C.A.F. in May. Unfortunately they were held up by ice conditions in the bay until mid-July and could not therefore obtain a complete record of the ablation period.

The main area investigated was the seven-by-twelve mile Grinnell Glacier and several nearby corrie glaciers. A thermograph and a rain gauge were set up on a 2,000-foot nunatak on the glacier, or small ice cap, which rises to 2,860 feet. On this small ice cap the yearly accumulation of snow does not all melt as on the Barnes Icecap to the north, and the ice cap is nourished both by the accumulation of firn at higher levels and by the formation of superimposed ice lower down. Several of the outlet tongues of the ice cap were visited, and from a comparison with photographs taken in 1897 it appears that although the ice cap is shrinking, it is doing so only slightly, and is in a fairly healthy state. A short trip was made to the nearby Terra Nivea ice cap, and on this journey one outlet tongue of the Grinnell Glacier was found to be advancing.

A large elevated delta and many raised beaches were examined in the area, as well as various moraines. The bedrock is mostly Archaean gneiss, often highly contorted, but there are some schists, quartzites, and granites. Geological, botanical, and entomological collections were made throughout the summer, and a large number of photographs were taken of the various glaciers and other landforms.

Many ducks, geese, gulls, and ptarmigan were seen, as well as ravens and snow buntings. Polar bears, seals, and beluga abounded, but arctic hares, foxes, and lemmings were not seen, although they are usually found in the area.

The weather was fine throughout most of the summer except for one week of sea fog brought in by southeast winds. It was only in May and August that freezing temperatures occasionally occurred.

The party returned to the airbase by ship at the end of August.

On July 13 of this year J. H. Mercer returned to the Grinnell Glacier to continue last summer's work. He will concentrate primarily on a study of the raised beaches and the various corries and outlet glaciers along the coast.

W. BLAKE

A new carbon drawing ink

A Tulsa, Oklahoma, firm has recently produced a carbon drawing ink for use on glass, cellulose acetate, and other water repellant surfaces which is not damaged by freezing and thawing. They therefore consider that it may have special value for use in the north, and have offered to provide up to 100 samples to those who are willing to test this ink under arctic conditions. Work done with the ink can be rendered water resistant by a brief cure at 180°F. The manufacturer's address is: Electrochemical Laboratories, 1430 Terrace Drive, Tulsa, Oklahoma, U.S.A.