CORRESPONDENCE

The Editor,

Journal of Glaciology

SIR,

South Greenland traverses

From May until early September 1959 and 1960, a team of two scientists and two technicians traversed the south Greenland dome for the purpose of determining summer and winter accumulation, mean annual temperatures, facies delineations (Benson, 1960), and snow characteristics pertinent to moving, constructing, and operating on the ice sheet. In 1959 studies also were made in the crevassed "ramp" area north of the village of Narssarssuaq to find a route to a previously surveyed access road from the settlement to the edge of the ice (Leighty, 1960, p. 1-36). The ramp route was revisited and re-evaluated in the spring of 1960.

Personnel on the traverses were from the U.S. Army Cold Regions Research and Engineering Laboratory (CRREL),* Corps of Engineers, and the U.S. Army Polar Research and Development Center (PRDC).

The scientific program carried out at pit stations, at intervals of from 20 to 50 miles (32 to 80 km.), included firn temperatures, density measurements, firn stratigraphy, and ram hardness observations in pits 1 to 4 m. deep and in core holes 10 m. deep (Fig. 1). Additional observations taken both at the pit stations and on the trail between pit stations comprised ram hardness tests every 5 miles (8 km.), altimetry readings every mile (1·6 km.), synoptic meteorological observations, and observations on primary and secondary sastrugi, and general trafficability. Added to the program in 1960 are data from studies of thermal conductivity and diffusivity in the uppermost meter of the firn. These data will be published in forthcoming CRREL reports.

This letter presents some data to supplement, and to indicate where corrections might be made to the paper by Diamond (1960). The data listed in Table I, however, must be considered preliminary information.

TABLE I

Station No.		*Accumulation in*	*Mean annual*
1959	*1960*	*cm. of H_2O equiv.*	*temp. in °C.*
1	*L*	30	−12·0
2		32	−16·1
3		33	−18·0
4		33	−19·2
5		37	−20·6
6	*F*	46	−19·2
7		77	−17·2
8		57	−20·8
9		30	−21·1
10		32	−19·3
11		39	−17·4
12		47	−13·4
13		41	−14·6
14		56	−19·5
15		66	−16·4
16	C	72	−16·5
17	B	80	−14·4
18	A	90	−10·1
	D	56	−19·4
	E	43	−21·2
	G	97	−16·1
	H	77	−19·9
	I	64	−20·2
	J	37	−19·2
	K	39	−18·0

* Formerly U.S. Army Snow, Ice and Permafrost Research Establishment (SIPRE).

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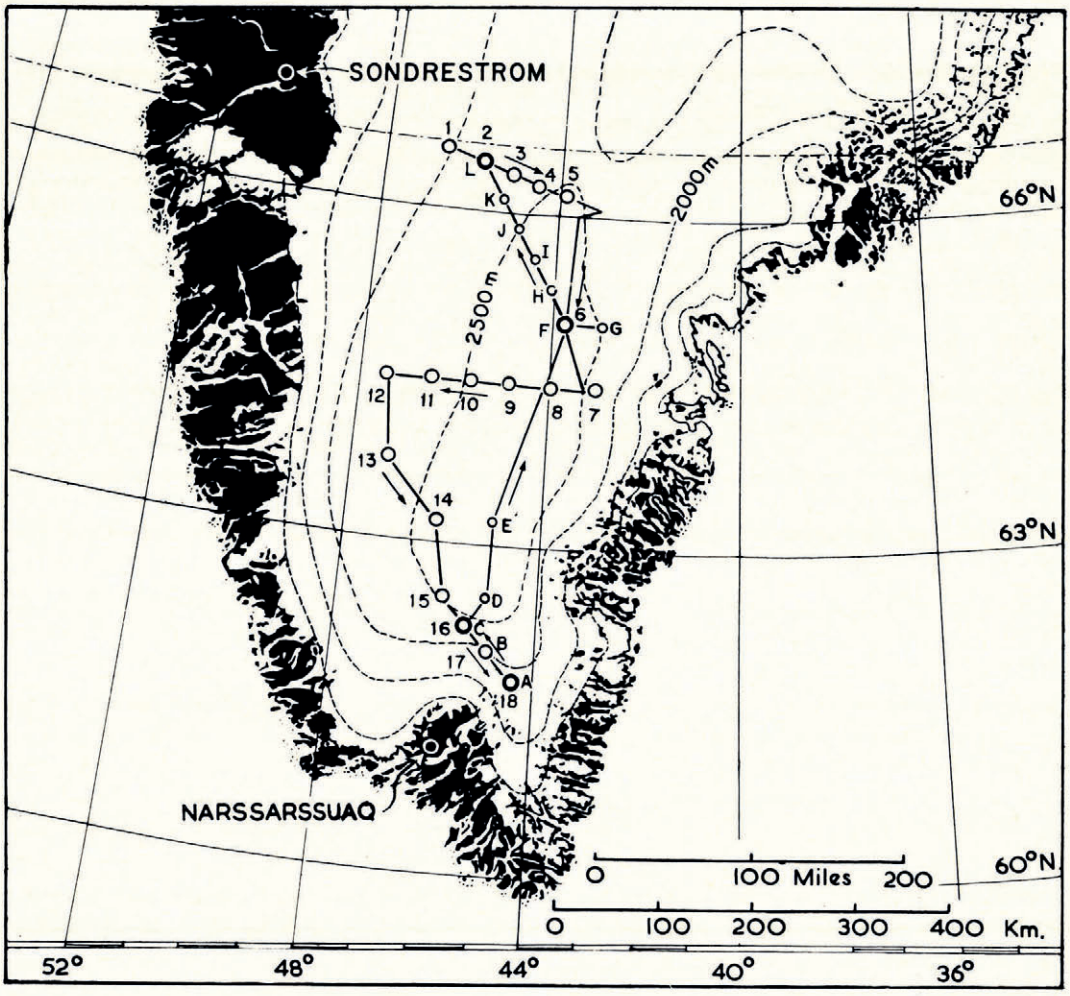

Fig. 1. South Greenland summer traverses, 1959 and 1960. ○ 1959 pit stations; ○ 1960 pit stations; ● 1959-60 pit stations

TABLE II

Station No.	*Temp. Obs.* °C.	*Temp. Pred.* °C.	*Discrepancy*
1	−12·0	−12·8	−0·8
4	−19·2	−18·7	+0·5
G	−16·1	−16·9	−0·8
I	−20·1	−20·2	−0·1
10	−19·3	−19·6	−0·3
13	−14·6	−14·4	+0·2
16	−16·5	−16·4	+0·1

A prediction formula for the mean annual temperature above 1,800 m. and between lat. 62·6° N. and 67·0° N. is

$$T = 48{\cdot}41 - 0{\cdot}52318L - 0{\cdot}014036E$$

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where

T is the mean temperature in ° C.,
L is the latitude in degrees and tenths of degrees,
E is the elevation in meters.

Predicted temperatures agree fairly well with observed temperatures as is shown at a few randomly chosen stations listed in Table II.

U.S. Army Cold Regions Research and Engineering Laboratory, Wilmette, Illinois, U.S.A.
28 March 1961

R. H. RAGLE *and* T. C. DAVIS, JR.

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Diamond, M. 1960. Air temperature and precipitation on the Greenland Ice Sheet. *Journal of Glaciology*, Vol. 3, No. 27, p. 558-67.

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SIR,

The term "ice island"

I have read with interest the three recent letters on "Terminology for Antarctic ice features" in this *Journal* (Vol. 3, No. 30, p. 1165-68).

I agree that we now have to accept the term "ice island", with or without a qualifying adjective, for a particular type of tabular berg found in the Arctic Ocean and adjacent waters. I support Dr. Crary in favouring the form "floating ice island" for this feature. It is unfortunate that the best-known example, T-3, has gone aground, and must presumably continue to be called an "ice island" (Dr. Law's type (3)?) until it becomes a shoal.

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23 October 1961

SIR,

Ice mounds on frozen lakes in McMurdo Sound, Antarctica

In the course of a two-month stay in McMurdo Sound, thanks to assistance from United States expeditions, I observed on the surface of frozen lakes mounds of ice elliptical in shape and crevassed. They appear to be a common feature in this region, and it would be interesting to know how they originate.

One was seen at McMurdo Sound about 0·9 km. to the north-east of the U.S.A. Station at a height of 127 m. in the centre of a small crater lake. Further to the north-north-east of the Station, 5 or 6 mounds were found in a frozen lake at the terminus of the big glacier to the north-east, at an altitude of 140 m. At Cape Royds, 2–3 km. to the south-east of the hut, on two small elliptical lakes there was a mound on each. In Victoria Valley, at the end of the lower Victoria Glacier, there was one mound. On Lake Vida there was at least one big mound. Finally, on the McMurdo Ice Shelf below Brown Island, amid a series of moraines, a number of small frozen lakes were seen from the air, some of which contained radiating crevasses reminiscent of the design of the preceding mounds, but closer observation was not possible owing to the danger of landing.

In the little crater lake 0·9 km. to the north of the Station there was a mound about 12–15 m. in diameter, with its top about 0·5 m. above the level of the lake. The crevasses in it (Fig. 1) were 8–10 m. long, about 5 m. apart, and 10–15 cm. wide at the top. At the top of the mound the ice was in columnar crystals which, viewed from above, formed a cellular network, each crystal being about 2–3 cm. in diameter. The centre of the crystals was transparent, the margins more opaque or white (Fig. 2). Their