

MCofS

Scottish South Greenland Expedition 1997

Final Report

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Summary

- The Scottish South Greenland Expedition achieved several first ascents in the chosen expedition area.
- The expedition did not attempt the proposed ice-cap crossing due to heavy pack-ice preventing travel in south Greenland.
- The expedition was successful in ascending coastal glaciers, land and inland ice to reach the south Greenland ice-cap by a new and cost-effective route from Narsarsuaq.

Introduction

The Scottish South Greenland Expedition was extremely successful in covering a large area of unexplored territory and ascending unclimbed peaks in July and August 1997. However, the expedition did not achieve its original objective of crossing the ice-cap from Sondre Sermilik to Narsarsuaq.

On arrival at Narsarsuaq in early July, we discovered that there was extensive pack-ice between Qaqortoq and Nanortalik. The unusually large amounts of ice in the area around early July were a product of the unseasonably high June temperatures prior to arrival. Being dependant on a boat to reach Nanortalik and with a tight timetable to adhere to, we had major decisions to make on the first day of the trip.

Due to the high level of commitment in the original plan, we felt that losing a week waiting for an ice clearance would have seriously compromised our chances of completing the journey. A decision was therefore taken to begin and end the trip in Narsarsuaq, guaranteeing success in the mountaineering objectives and allowing us to begin exploration in earnest three days earlier than anticipated.

Major logistical problems were encountered during this period, not least of which was the need to regain our food parcels which had been sent to Nanortalik a month before. Within the day, we had changed the plan to utilise Kiagtut Sermiat as our access to the inland ice. This glacier, immediately behind Narsarsuaq, was the focus of our Plan B in the original MEF Presentation (See Appendix 1) and was known to be descendable through the previous experience of Jumeau and Hull (1994). It was also the original descent route for Plan A and we felt that it offered the best hope of salvaging the most from our position at that time.

From the end of Kiagtut Sermiat, we would push on across Kornerup land, a large landmass abutting the inland ice and thence onto the ice-cap via the Ostgletscher. From the end of Ostgletscher, the plan was to cross the ice-cap to reach the east coast. There we would climb as planned and complete the return journey to Narsarsuaq as a loop leading back to the Ostgletscher and eventually Narsarsuaq.

The New Journey

We began the new journey in early July. Commitment was high from the start due to the difficulty of moving equipment. In the original plan, we would have been on snow soon after arrival at Sondre Sermilik and thus able to haul our loads in one go.

The new route presented us with enormous physical difficulties due to the nature of the terrain between Narsarsuaq and the inland ice - a distance of over 50 km often on heavily crevassed dry glacier and bouldery tundra. Each sledge load was split into three 85 lb rucksack loads and ferried in return trips. This meant that 5 km were walked in order to progress 1 km.

Between Narsarsuaq and the inland ice, the sledges were only used for 25 km - an effective one-way journey distance of 175 km not including large amounts of zig-zag progress in crevasse fields. Progress was painfully slow, but the journey was completed in just over 2 weeks.

This period of the expedition was psychologically draining and serious - the lower section of the route is crossable but technically demanding due to the triple crossings of each section with the load greatly increasing risk.

On reaching Ostgletscher, the terrain became more amenable and the sledges were used continuously. Loads were lightened considerably by the use of food and fuel. Coupled to this, the skis were now in use over large stretches and there were small sections of downhill.

However, during this period, travelling became difficult during the day due to temperatures of 25 oC and large areas of slush and surface water. We reached a large group of nunataks 30 km from the east coast and decided that in order to climb *and* make the return journey, we would have to stop and set up floating mountaineering camps in this area.

Mountaineering Activity

Mountaineering began in earnest at the nunataks. As mentioned in the expedition outline for sponsors, minimal mountaineering kit was carried due to the enormous amounts of other essential equipment. However, the team completed several first ascents in this area up to 2000 metres and AD- standard and failed on some more principally due to approach difficulties.

Even high on this part of the southern ice-cap, crevassed areas were frequent and extremely unpredictable. Travel in this area was dangerous and time-consuming with frequent punch-ins. Much of the terrain was unreadable and the only hope of reasonable progress was night-time travel though even this wasn't foolproof.

However, there are numerous extremely attractive peaks in this area to 3000m - the planned return trip in 1999 will be more focussed on exploring this area which stretches for hundreds of miles up and down the east coast.

Health

Health on the trip was excellent throughout. There were no injuries of any form other than minor cuts and bruises. Considering the extreme effort involved in load-carrying coupled to the large distances covered without rest for weeks at a time, we were fortunate not to suffer strains. Feet were a minor problem though blistering and cracking was never experienced.

The 1st Aid Kit carried covered all eventualities and was therefore large. Morphine, Dihydrocodeine etc are considered essential for travel in this area with the risk of accident potentially high.

Food

We would advise that any future visitors to this area consider their rations very carefully. Quite apart from the psychological advantage of high quality rations, we felt that a large calorific intake was absolutely essential and undoubtedly contributed to our health and eventual success in completing the route.

Rations were 6,000 calories per man day with 35% of that being fats - mayonnaise and oatcakes were the main source of this. We rehydrated food during the day in containers and cooked pasta and par-cooked rice in thermos flasks at night. Peanuts, dried fruit and oatcakes with squeezable cheese were all excellent food to eat on the move, which we frequently did.

The main evening meal accounted for a large proportion of the calories. The main course

comprised either curry or bolognese heavily supplemented with creamed coconut/ almonds and parmesan/ground sunflower seeds respectively. Thick 2 pint soups and dried fruit/custard finished the meal off.

Breakfast were designed to be quickly and easily digested and comprised yoghurt bars, cereal bars and hot muesli with hot chocolate and very weak tea.

Equipment Performance

All equipment performed faultlessly including sledges, skis, cookers and tents. However, the following points may be of interest:

- (i) Suncream (F25) is absolutely essential and large amounts should be carried.
- (ii) Sledges need to be modified for rope traces though the metal trace is still useful for steering the sledge lower down on the badly rippled and runnelled dry ice. Including shock absorption quick-draws in the rope trace (with thick bungee) alleviates jarring on the move. Incidentally, they provide excellent anchor points for ice-screws on the tent guys.
- (iii) Tents must be valanced though we rarely used the double poles.
- (iv) Ice-screws are necessary to secure the tent on dry glacier, of which there is large stretches on the route.
- (v) Two cookers were very useful as were the wooden boards on which they sat. MSR X-GK are the only suitable cookers for this type of terrain even though a large proportion of the water was collected from rainwater pools. We carried 20 litres of fuel, 0.5L per day and melted water in black bin bags to save fuel on the wet glaciers.
- (vi) Thermos flasks are an excellent way of saving fuel as they par cook food.
- (vii) Cables are an absolute necessity for the skis due to the large load of the sledge.
- (viii) Mosquito nets and cover-all clothing is absolutely essential for the lower altitudes, the mosquitoes being voracious prior to ice-travel.
- (ix) Hand-held GPS is essential for this type of journey when bad weather prevents use of compass due to the huge scale of the maps for the area.
- (x) Maps themselves were surprisingly accurate for the area travelled in with few landscape

features missing.

(xi) A spare pair of crampons are an absolute necessity due to the large distances walked on undulating dry glacier. Crampon breakage would actually necessitate rescue, travel being impossible without them.

(xii) Scarpa T3 plastic telemark boots may provide an excellent compromise for this type of lightweight ski-mountaineering trip with crampons used in French style on the easier ascents. Carrying two sets of boots increases the carry-home weight enormously though it is hardly noticed when hauling 250 lb sledges on the outward trip.

Weather

Weather during the expedition period was generally excellent, if anything too hot and clear for much of the time. Notes are as follows:

(i) High winds were experienced on 8 days and made travel difficult, especially when carrying skis and sledges on the packs.

(ii) Rain and drizzle were reasonably common but rarely coincided with ~~rain~~^{WIND} - this was almost pleasant at points during the journey.

(iii) Visibility was always excellent, one peak seen at the start of the journey was not reached for 16 days!

(iv) Temperature maximum was 27°C and temperature minimum was -11°C with daytime temperatures averaging 19°C.

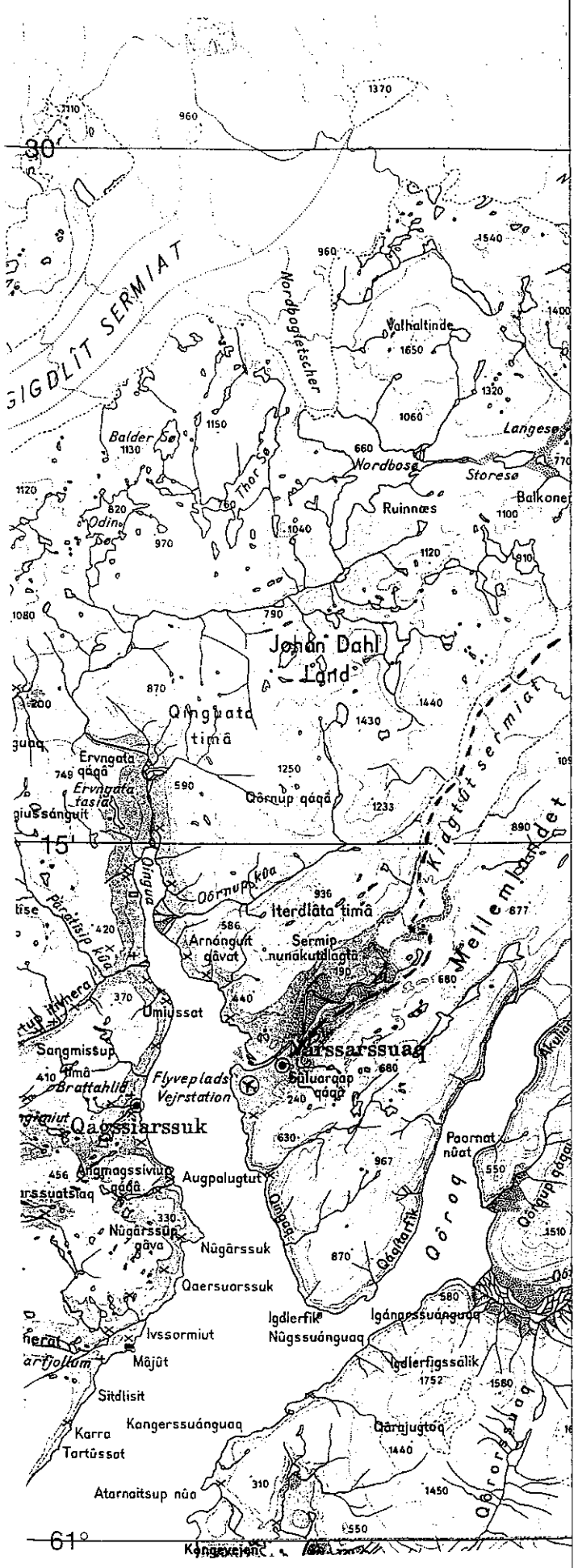
(v) Snow fell on two days at the end of the journey.

APPENDICES

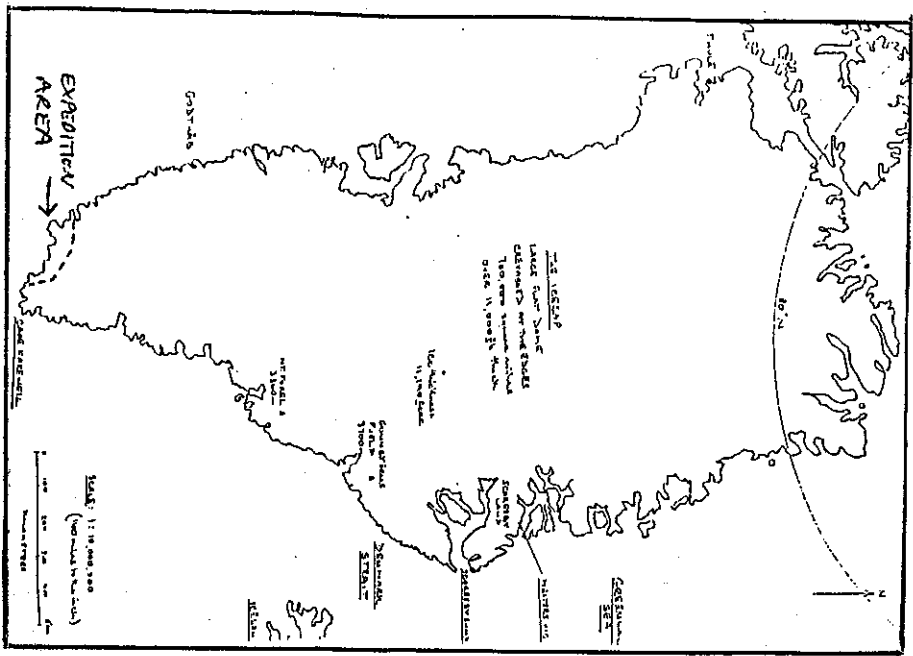
(i) Map of route

(ii) PR Brochure

(iii) Presentation Pack with Initial Expedition Proposal



SCOTTISH SOUTH GREENLAND EXPEDITION 1997



Introduction

For one month this summer, a two-man Scottish mountaineering team will visit a previously unexplored area of South Greenland. Greenland is one of the few remaining areas of true wilderness in the world and is a paradise for *exploration, mountaineering and adventure.*

To travel as a two-man team is a very exciting, but challenging way to explore and climb among some of the world's most remote peaks and glaciers. We expect that this exciting approach, coupled to our innovative and committing plans, will provide us with experiences as rich and diverse as those of Arctic explorers in the past.

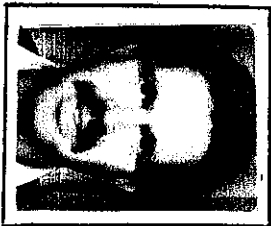
The Objectives

In July 1997, we will fly to Narsarsuaq airbase (61 degrees N). From there, we will man-haul our 125 kg sledges of food and equipment. Using skis and parachutes to increase our travel speed.

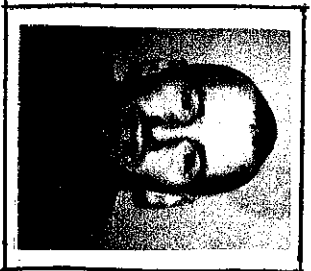
Moving east across the unexplored ice-cap, we expect to reach the Søndre Sermilk / North Lindenoys area of South Greenland after one week. Once there, we will set up a sequence of camps which will give us the opportunity to explore the area.

By using aerial photographs supplied by the Danish Government, we expect to achieve the first ascents of a variety of mountains in the area before we have to make our homeward journey to Narsarsuaq.

The Team



Malcolm Thorburn (35) lives in Torphins, Aberdeenshire and is a mountaineer and skier of repute. Highly qualified and experienced, he has climbed amongst most of the world's famous mountains and has achieved many first ascents. He has visited Greenland previously as Deputy Chief Leader of a British School's Exploring Society Expedition in 1992.



Douglas Campbell (23), from Strathaven in Lanarkshire, has been climbing for 12 years and has also visited many of the world's famous ranges. He has achieved first ascents in Scotland and Arctic Norway. Moreover, Malcolm and Douglas have put up first ascents together in Arctic Svalbard and Peru, South America.

(1) EXPEDITION OVERVIEW

SCOTTISH SOUTH GREENLAND EXPEDITION 1997

- Members:** Malcolm Thorburn MIC (35)
Douglas Campbell (23)
- Duration:** 6 weeks
- Area:** Sondre Sermilik/Lindenows,
south Greenland
- Objectives:** Ascents of unclimbed peaks and traverse
of unexplored ice-cap from Sondre
Sermilik in the SE to Narsarsuaq in the
NW
- Total exp. cost:** £7,117
- Income (03/97):** (£2,600)

(2) EXPEDITION SUMMARY

**- An expedition which fulfills the criteria of the MEF.
It will provide:**

**Extensive ice-cap travel in completely
unexplored territory**

**The opportunity and flexibility to complete many
first ascents to AD standard**

**- A two-man expedition with ambitious and
committing objectives**

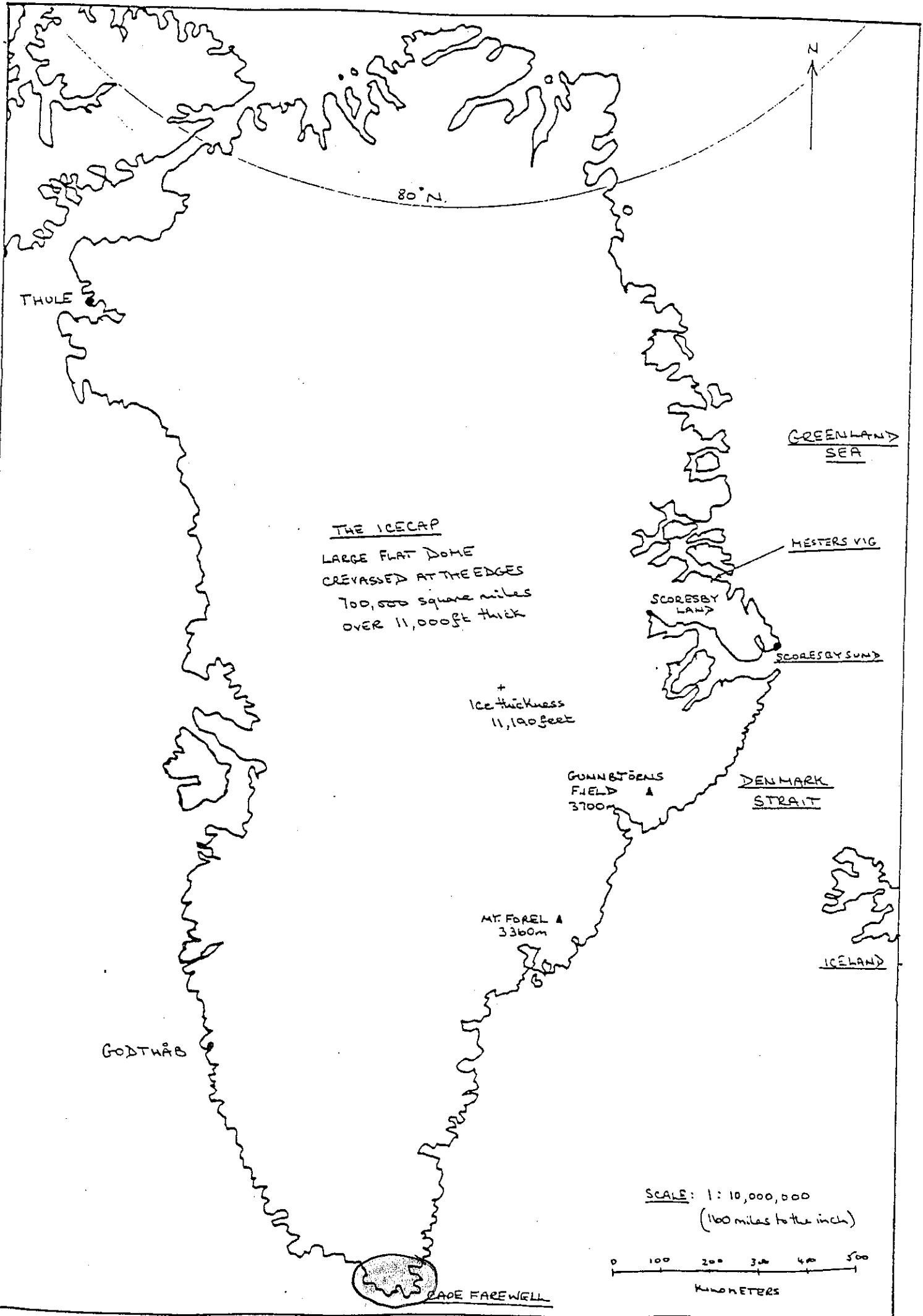
**- A small and entirely self-sufficient team who have
minimised logistical problems through thorough
research and evaluation over a two-year period.**

**- Thoroughly researched access and exit points to, and
from, the ice-cap. Both have been used by previous
expeditions.**

**- A minimum impact expedition which has a definite
waste minimisation policy:**

**Food will be optimally packaged before leaving to
reduce waste and all litter will be carried back.**

Human waste will be deposited in crevasses.



THE ICECAP
 LARGE FLAT DOME
 CREVASSED AT THE EDGES
 700,000 square miles
 OVER 11,000ft thick

+
 Ice thickness
 11,100 feet

GUNNBTOENS
 FJELD
 3700m

MT. FORSEL
 3360m

GREENLAND
 SEA

HESTERS VIG

SCORESBY
 LAND

SCORESBY SUNG

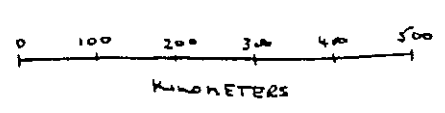
DENMARK
 STRAIT

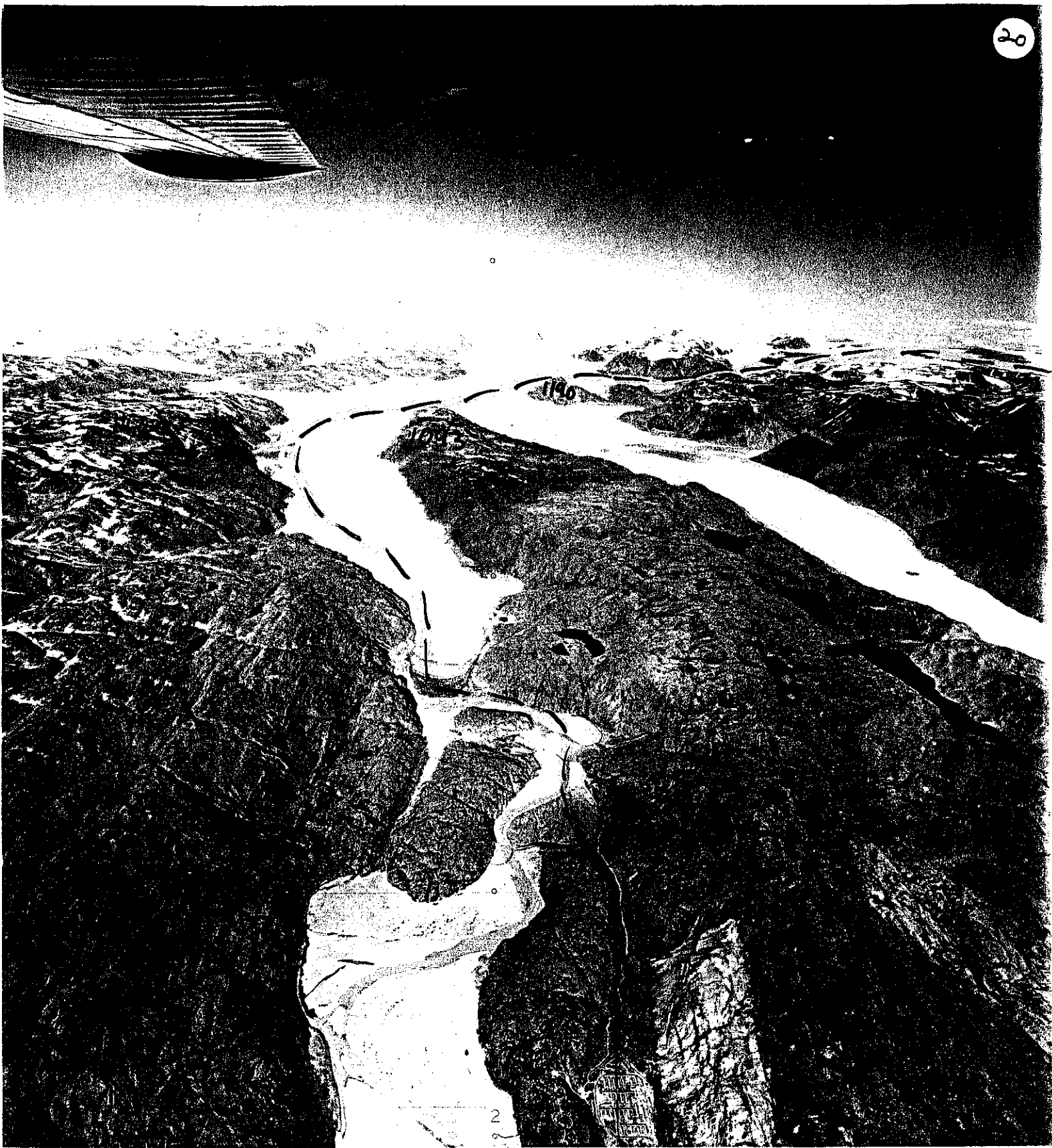
ICELAND

GODTHÅB

CAPE FAREWELL

SCALE: 1: 10,000,000
 (100 miles to the inch)







(4) OBJECTIVES

We have twin objectives:

(i) The first ascents of unclimbed peaks in the Sondre Sermilik - West Lindenows area from 'floating' camps.

(ii) The crossing of the ice-cap from Sondre Sermilik in the S to Narsarsuaq in the N. Approximate distance 150 km.

Northern limit of travel: 61° 15' N

Southern limit of travel: 60° 30' N

Eastern limit of travel: 45° 30' W

Western limit of travel: 43° 30' W

(5) EXPEDITION ACCOUNTS (£)

| EXPENDITURE | | INCOME | |
|----------------------|-------------|--------------------|-------------|
| Flights | 1320 | Personal cont's | 2000 |
| Insurance | 340 | Gino Watkins Trust | 600 |
| Helicopter (1-way) | 200 | | |
| Boat (one-way) | 250 | | |
| Freight costs | 200 | | |
| Equipment: | | | |
| Ski boots | 150 | | |
| Ski spares | 150 | | |
| X-GK stoves | 150 | | |
| Tent alterations | 200 | | |
| Ski skins | 350 | | |
| GPS | 220 | | |
| 2 pulks | 500 | | |
| Para-wing | 250 | | |
| Films | 200 | | |
| Batteries | 40 | | |
| Beacon | 1000 | | |
| Bivi bags | 300 | | |
| Food | 400 | | |
| Domestic travel | 50 | | |
| Medical kit | 50 | | |
| | | | |
| | | | |
| PR, advertising etc. | 150 | | |
| Contingencies (10%) | 647 | | |
| Total | 7117 | Total | 2600 |

BALANCE -£4517

(6) SUMMARY OF EXPEDITION LOGISTICS - Travel

(i) The expedition will fly to Narsarsuaq by SAS and transfer, on Greenlandair helicopter, to Nanortalik. From there, we will board a chartered boat to Sondre Sermilik.

(ii) From here, the expedition will man-haul food and equipment onto the ice-cap and begin to explore the area N of Sondre Sermilik / N and W of Lindenows fjord.

(iii) The expedition will begin to move NW at the appropriate time on their journey back to Narsarsuaq (Distance c. 150 km)

MOST IMPORTANTLY, access on and off the ice-cap for both options has been previously recce'd by other parties:

- Jumeau and Hull (1993) descended the Kang Sermuit Glacier north of Narsarsuaq when they completed an ice-cap crossing. They mention in their report (a) their route of descent and (b) a suggested route for ascent.

- A recce party for a potential 1997 BSES expedition (ref. L. Morgan) examined access to the ice-cap at the head of Sondre Sermilik in 1996. Though they preferred Tasermuit due to the large size of their party, they have informed us that a landing and ascent should be possible.

- L. Turnbull Brown used the head of Tasermuit fjord as their access point onto the ice-cap in 1993 and he informs us that it is a feasible, though time-consuming route

Our plan B (in case of underfunding) will be to attempt to reach the same area by accessing the ice-cap at Narsarsuaq and travelling south. This will provide far less time for mountaineering but provides an assured return route.

(6) SUMMARY OF EXPEDITION LOGISTICS - Equipment

- (i) 2 @ 242.5 MHz **distress beacons** will be carried. These will be serviced and tested by the RAF at Leuchars. One in each pulk for safety.
- (ii) A **GPS** system will be carried for navigational back-up and used during the day at camp to fix position.
- (iii) Our **VE -25** tent will be customised for ice-cap use by addition of a valance, selected extra guying points and double poles. (a 'Livi-bivi' system will be carried as a back-up).
- (iv) 2 @ **MSR X-GK** stoves and wood bases will be carried both for cooking efficiency and back-up.
- (v) 2 custom built **pulks** will be purchased from B. Hull (ex BAS) and used for the hauling. A para-wing will also be carried and used at every opportunity for sailing. Traces will also be purchased and customised for hauling and sailing using bungee.
- (vi) Identical **ski equipment** will be carried as will a full set of spares. 2 sets of normal skins and strips of old skins will be backed up by plastic skins for hauling on dry-glaciers. Tool kit and emergency kit will be comprehensive and provide for most eventualities.
- (vii) **1st aid kit** will be comprehensive and obtained through medical contacts.

(6) SUMMARY OF EXPEDITION LOGISTICS - Food

- The main bulk of the food will be **purchased in Greenland** if possible (pending confirmation with KNI Stores). This will reduce the freight costs considerably and give the expedition a further degree of freedom, flexibility and control (no freight problems).
- If problems are experienced (esp. with regard to purchasing food in Narsarsuaq), we will **use Royal Mail Parcel Post** as a reliable and cheap freight method. Food will be pre-packaged in the UK and posted out 6 weeks before departure.
- This freight method will also be used for other equipment over and above our aircraft weight allowances.
- Rations will be **6,000 calories / man / day**.