

Greenland 2000 – Watkins Mountains
International Female Expedition

Expedition Report

ExpPg 00/31

GREENLAND 2000 – WATKINS MOUNTAINS
INTERNATIONAL FEMALE EXPEDITION

Expedition Members:

Christine Watkins	United Kingdom
Anne Picard	Italy/Netherlands
Charlotte Steinmeir	Switzerland/Germany

Due to bad weather our expedition team members joined up with the Tangent team for ascents of the peaks that were climbed (see below).

Tangent Expedition Members:

Robin Beadle (Guide)
Tom Keeley
Bruce Maxwell

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AIM OF EXPEDITION

The primary aims of the expedition were to climb previously unclimbed peaks and to explore a glacier that had no record of previous exploration.

The expedition plan was to fly by twin otter to the Watkins Mountains and land on the Upper Woolley Glacier. From here a base camp was to be set up with the aim to climb peaks in the near vicinity.

After 5-7 days spent here the team planned to move down the Woolley Glacier and find a crossing to take them onto the glacier to the east of the Woolley Glacier. The team would then attempt peaks in this area.

Finally the team would move to the base camp below Gunnbjorn Fjell to climb this.

The team would be collected 19 days after drop off at this third camp.

INTRODUCTION

The team leader Christine Watkins had wished to organise a ski-touring expedition to Greenland and spent some considerable time researching for an area that would offer both opportunities to climb peaks on skis and climb unclimbed peaks in little known areas. Two different sources identified the Watkins Mountains as an area that would afford these objectives. Chris had little previous knowledge of the area and it was not chosen because of the obvious name connection, however this did add considerable interest. Chris spent time researching the history of Gino Watkins which gave considerable insight into the early exploration of the east coast and Greenland ice cap; additionally the history of the Trans-Atlantic route via Greenland, and the instrumental role that Gino had to play in this. Chris also investigated any family connection but has so far been unable to make any connection with Gino.

Map (1) shows the area of the Watkins Mountains situated within Greenland.

Paul Walker who had visited the area previously was able to offer invaluable advice on the peaks previously climbed and areas visited previously. He was also able to assist with procurement of aerial photographs (Danish Geographic Survey) and slides (previous expeditions).

The aims were developed over a period of time to that stated above.

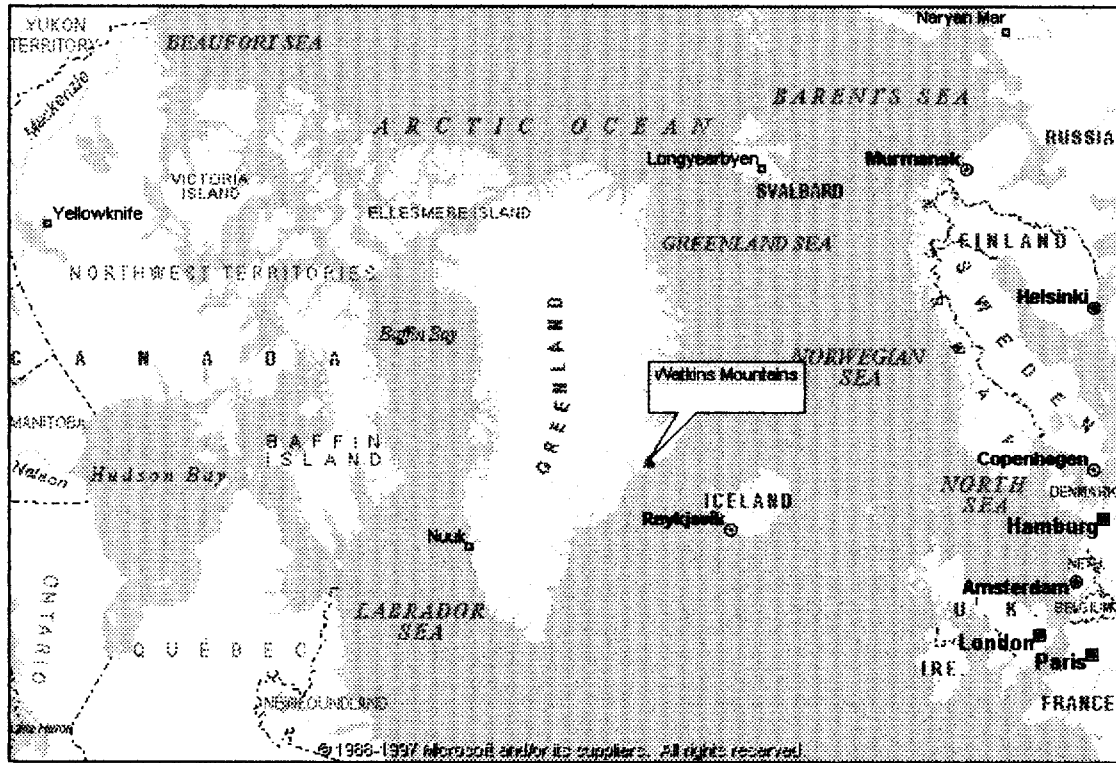
Due to long term work commitments Chris decided that she wished to go to Greenland in the year 2000 which only allowed for 8 months for planning and fund raising. The main limitation that this caused was the lack of availability of other expedition members, who had both time available and ability to contribute to finances at such short notice.

Chris had met both Charlotte and Anne through the European women's network - Rendez-Vous Haute Montagne. This is a network of women climbers that organise events in different European locations each year; these include winter climbing, ski-touring and summer Alpine meetings.

Logistics for the expedition were complicated and costly. It proved both easier and more economical to use the services of Tangent Expeditions. The assistance of Paul Walker, the director of this small operation was invaluable.

We would like to express our appreciation to the Gino Watkins Foundation, Mount Everest Foundation, British Mountaineering Council, Alpine Ski Club and the Dutch Alpine Club for their assistance with financial contributions to the expedition. Thanks and much appreciation are also due to Terra Nova for the loan of 2 excellent tents, in which many hours were spent.

MAP ONE - GREENLAND



POSITION OF WATKINS MOUNTAINS

EXPEDITION MEMBERS

Christine Watkins, (45 years) originally from England now living near the Scottish Highlands, has a background of 25 years mountaineering. She climbs regularly on the hills of home but is always questing for adventures abroad. Previous climbing expeditions have been in the USA, Karakorum of Pakistan, and Central Andes of Chile and Argentina. However, her love of wild places and exploratory experiences was fostered during her 2 years spent living in Kazakstan with regular trips and expeditions in the Tien Shan and Pamir Alai. Chris is a member of the Pinnacle Club and Scottish Mountaineering Club.

Anne Picard, (33 years) is from the Netherlands but lives in Italy and takes every opportunity to spend time in the local alpine regions. She has completed a legion of ski mountaineering routes in the Alps and has climbed numerous summer alpine routes. In 1996 Anne was part of a team to the Cordillera Blanca in Peru, climbing Pisco, Alpamayo and Huascarán. She has led 2 international women's ski mountaineering meets in the Alps. She regularly instructs Ski Touring with the Dutch Alpine Club and local Italian groups. Anne regularly instructs with the Dutch Alpine Club (NKBV) and the Italian Alpine Club (CAI), Padova Section.

Charlotte Steinmeir (39 years) from Germany lives in Zurich; it is almost impossible to find Charlotte at home due to her determination to be in the mountains at every opportunity. She has made many notable ascents in the Alps. Charlotte has participated in expeditions to Baffin Island, making an ascent of Mt. Asgard; Ecuador, climbing Chimborazo and Cotopaxi; Chinese Pamir, making 4 first ascents; and Alaska's Aleutian Mountains climbing Katamai and Trident Peak.

Tangent Expedition Team

Robin Beadle is BMC Guide with considerable experience in the Alps and Himalaya. It was his first time in Greenland.

Tom Keeley had been to the Schwiezerland Alps in Greenland on a previous Tangent Expedition.

Bruce Maxwell had had some experience in greater ranges previously.

ADMINISTRATION AND LOGISTICS

Finance

See Appendix I for Financial Report. Chris managed all the financial arrangements via Tangent. Chris kept ongoing accounts of the team's expenditure. There was minor additional expense because of money being transferred from European banks to UK.

Funds were raised through grants from Gino Watkins Trust, Mount Everest Foundation, British Mountaineering Council, British Alpine Ski Club and Dutch Alpine Club. Grant applications can be time consuming but it is worth taking the time to make a good representation, that the committee can read easily, objectives are clear and inspires confidence. The European element of our team restricted our eligibility for funds as most are targeted at British Teams.

Additional funds were raised through the sale of T-shirts. Whilst many of our climbing friends had done this before and were not so keen to purchase them, work colleagues and other friends were very enthusiastic to do so.

The remainder of the cost was paid for by individual team members.

Photographs and Maps

Very little information exists about the Watkins Mountains but the reports from previous expeditions (accessed at the Alpine Club Library in London) and discussing with leaders on these trips proved valuable in developing ideas for the expedition. Thanks must go to Paul Walker and Jim Lowther.

Derek Fordham, Ian Angel and Rob Ferguson were all consulted on general information about and planning for Greenland.

Aerial photographs can be obtained from the Danish Geographic Institute. Slides of the area were of limited use as they were not of the actual mountains we wished to climb but they were able to give us a limited idea of the area.

There is a relatively good map available of the Watkins Mountains. Map title "Hvtserk (Gunnbjorn Fjell)" in the range of maps - "Fjeldkort Ostgonland" This is of a scale of 1:100,000. The map was very useful although not able to give significant detail - e.g. crevassed areas were not clear, demarcation of rock and snow fields not always clear. The map can be obtained from Harvey Maps.

Permission and Permits

Permission for the trip is obtained from the Danish Polar Centre.

One of the main requirements for permission being granted is a certificate stating that each member has £50,000 (equivalent in Danish Kroner).

Insurance

The Danish Polar Centre requirement is a restrictive factor as the BMC insurance for expeditions limits this to £25,000 and although General Accident Underwrite the extra amount you have to guarantee reimbursement of this sum should it become necessary. We arranged insurance via Paul Walker with a tailor-made scheme arranged by Govier & Ault Limited Insurance Brokers, Gloucester.

Transport

The only method of travelling to this remote area of Greenland in winter, and landing on the glacier is by twin otter aeroplane from Iceland. Air Iceland are the only company providing this service. The cost of a return flight for this journey is approx. £10,000 and therefore with two return trips being necessary this was prohibitively expensive. As a small expedition it was not economical to do this independently.

Discussions with Paul Walker enabled us to be fitted into the logistics he was arranging in for Tangent's Expeditions. This involved us being flexible with our time schedule to fit into a period when he could utilise the flights for dropping one expedition up whilst collecting another. It also limited us to sharing transport unless we could find another 2 people. This did not happen, hence the reason for us sharing the plane with a small Tangent team.

Each of the team members flew from a different location and we met up in Reykjavik. Chris - Glasgow; Anne - Venice; Charlotte - Munich.

Freight

Freight was arranged through Tangent. Our equipment was at Akureyi safely waiting for us in a hangar.

Due to the fact that the twin otter would be at its limit flying us to Greenland, our food had been dropped off previously at the site of an earlier expedition. This proved costly to us as we had to purchase food whilst stuck in Iceland for one week (see below).

Accommodation

In Reykjavik, Akureyi and Isafjordur the team stayed in local guest houses. These provided 'sleeping bag' accommodation which kept costs to a minimum but as expected in Iceland, this is not cheap. Per person per night - approx. £15 - bed only.

Communications

In our preparations E-mail was a vital link and essential communication tool, both between each other and with agencies.

Emergency Communication in the field:

- A VHF Radio was taken - this would have been able to communicate with planes flying over Greenland.
- EPIRB satellite linked radio beacons - transmits distress signal in emergency

- Satellite telephone - Tangent group had this and it was used to contact Tangent in UK and Air Iceland regarding return pick-up.

All communication equipment was supplied by Tangent, as part of the logistics package.

Equipment

See Appendix II for equipment list.

The Terra Nova Hyper Space tents performed very well. The team greatly appreciated the contribution that *Terra Nova* made to our expedition in providing these from their expedition equipment pool. Snow stakes were essential; we took 10 for each tent which whilst we managed was not really enough - we could have used double this amount.

The team had decided to use Alpine Skis. These proved as expected to be slow on the flatter glaciers but were beneficial on the descents. The terrain encountered could have all been skied by good telemark skiers.

For navigation purposes the team felt that the addition of a GPS to the equipment made finding positions on the huge wide glaciers more accurate and safer.

2 stoves made meal times quicker when snow had to be melted. Whilst we expected the amount of fuel to be more than ample the daily amount calculated was only just enough. It is difficult to know why this was, but may have been through having more brews during the 6 days of forced inactivity.

We only had one radio in our group and we felt that if the three of us had been on our own two radios for group communication would have been useful. For instance if one member stayed at base whilst the others were out.

Overboots/gaiters were found essential with the fresh snow we encountered. Some form of easy to put on footwear is useful for when at basecamp and for getting in and out of tents in bad weather. Anne had overboots which she used with the boot inners around basecamp which made a good combination. Insulated 'wellies' would have been just the thing!

We did have some discussion as to whether one rope would have been sufficient as the glaciers reportedly were not hugely crevassed. We took two and felt that this was essential.

Snow stakes were much easier and more efficient to use than deadmen, we would not take deadmen again.

We took plastic bubble wrap for extra insulation for the tents which we found essential. The Tangent team had a thin campamat type of material that was the size of the tent floor; this was excellent, but no doubt more expensive than the plastic.

Safety

Safety was very much in mind as were planning the expedition. We felt that we achieved this with most of our equipment and overall preparations. The one area that was weak was the team itself. We felt that three was really too small a number in such a remote area when climbing peaks and that four would be a better minimum to work with. The fact that we had not climbed extensively together also had an impact on the team's confidence, and for future trip we felt that this should be in mind.

Medical Arrangements

Anne compiled a comprehensive medical kit (See Appendix III) which could adequately cover unforeseen medical needs. Each individual took specific medical needs.

A first aid kit was also taken in the group for use when away from base.

Environmental Impact

The group took out everything from the mountains except toilet paper, which was left with human waste in toilet pits (dug into glacier); these were filled in on departure.

The group otherwise made no impact on the environment.

Photography

All members had cameras and took slides. Fuji film was the most popular. Copies of slides can be obtained/viewed via expedition team leader.

At times members had problems with cameras working in the cold particularly at night. Even keeping cameras close to the body, on occasions they would only take one or two pictures before ceasing to work.

Food

As with most expeditions food was the most time consuming part of the preparations. Most food was purchased in the UK as the freight was leaving from here. See Appendix IV for detailed menu plans.

The team felt it was essential to keep calorie intake high and the food enjoyable if they were to be able to work hard in a harsh environment. After consulting other expedition reports and considering our own previous experiences it was decided that we would aim at providing 3,500 kcal per day per person. We wished to build in as much variety as possible, which meant greater work in preparation but did mean that the team found the food to always be enjoyable and something they looked forward to. The criteria had to be tempered by weight. As the first five days would where the plane would be dropping us off at it was decided that the food could be heavier for these days. Following this it was aimed that food should be kept to a maximum of 1 kg per person per day.

The team benefited from the European combination of members, in particular the food brought from Italy

Favourite food on the trip: (not in order of priority)

- Chinese stir fry (at first base camp - heavy); risottos
- Flapjack
- almond fingers
- fruit cake and custard
- pasta with Italian herbs and olive oil (very quick and simple)
- croutons (we had a packet with every soup and was not only very enjoyable, weighed little and was very high in calories)
- smoked speck (Italian dried ham)
- tunafish
- liquorice alsorts
- after eights
- Isotar drinks
- sun dried tomatoes
- peanut butter
- fresh parmesan cheese

Food that was not found to be palatable on the trip

- mashed potatoes, unless mixed with spicy meat
- canned meats
- jelly beans

Additional requirements

- More savoury drinks. It was found that team members really appreciated savoury drinks after physical activity and desired more 'bouillon' type cubes.

Quantity: it was difficult to judge if we got this right as we had to purchase food in Iceland for our delay there. This had the knock on effect of having to dispose of a large quantity of food at the end of the expedition. The team found that on days of activity all of the food was consumed but that on the time spent in tents at base after one or two days appetites waned and very little was consumed. Considering that you have to plan for being active it was felt that the amounts were about right.

Appendix IV gives detailed menus for each 24 hours and calorie intake. We hope this may be of help to people planning future expeditions.

Food purchased in Iceland is expensive and should be avoided as far as possible. There are some restaurants that provide reasonably priced meals but is more expensive than UK equivalents.

EXPEDITION ITINERARY

6 May
Flight to Iceland

7-10 May
Time spent exploring southern Iceland and visiting geo-thermic areas of interest.
Good opportunity to get an introduction to Iceland.

11 May
Flight to Akureyri. Weather did not allow us to fly to Greenland - poor visibility in Greenland.
We had now joined a Tangent Expedition consisting of a guide and two clients who we were to share a flight in to the same area. They were planning to ascend peaks in the area of our first planned base camp and then travel to Gunnbjorn Fjeld where we planned to rendezvous at the end of the trip.

12 - 14 May
The weather continued to be unstable in Greenland and unable to fly. This was becoming quite frustrating, particularly as the weather in Akureyri was excellent, in fact unseasonably warm and sunny. Most days were spent in limbo, unsure if or when we might fly. On 14 May we were able to ascertain that we could not fly that day and hired a car; this enabled the group to visit Lake Mvatyn and the surrounding area. This was an excellent trip, viewing some outstanding areas of geo-thermic interest.

15 May
Flew to Isafjordur. It had been hoped that we could fly on to Greenland later that day but the weather once again closed in.

16 - 17 May
Spent in Iceland, waiting. A combination of weather and logistics, involving two rescues¹ in Greenland, were thwarting our opportunities to fly.

Morale was low by this time and members found the unbudgeted expenditure a serious concern.

Team members became increasingly anxious regarding the conditions that we might find and it was agreed that during at least the first part of the trip we would join the Tangent team.

¹ A Dutch man from a two man team had fallen into a crevasse; an Icelandic rescue team had been flown into the area to attempt a rescue. The man had fallen into a huge crevasse and his body had disappeared, presumed dead. They were unable to retrieve the body. The team were stranded in Iceland for one week due to inclement the weather.
A Norwegian team had decided to abandon their Ice Cap crossing, due to a combination of bad weather and illness of one team member.
These two rescues were, rightly, given priority over our team's requirements.

18 May

At last there was a window in the weather and we were able to fly. An excellent flight with no problems. We collected our freight from Ejnar Mikkelsens Fjeld² and continued to "Pev" - our proposed base camp.

Later that day a recce up the eastern arm of the Upper Woolley Glacier and possible attempt on a peak was planned. Both groups joined up for this. The ascent of the glacier was far longer than anticipated and members were not prepared for how cold it would get into the night - lulled by the sunshine and warmth earlier in the day, and were not carrying adequate clothing. Three of the group turned back.

It had looked an easy plod up the shoulder but 20m above the bergschrund it was hard ice for 2 full pitches, on a very narrow ridge.

Sphinx (first ascent) 3210m was climbed by Robin, Charlotte and Tom.

19 May

Chris, Charlotte and Anne attempted an unclimbed peak close to the base camp area. On ascending to the col Charlotte fell into a crevasse. The team carried on for a short while, but confidence had been shaken. The following section appeared to be unstable with possible further crevasses; the group decided to descend.

Later Charlotte joined Robin, Tom and Bruce for a second attempt.

Ladies' Peak (first ascent) 2992m was climbed by Robin, Charlotte, Tom and Bruce. After the initial difficulties, encountered earlier, the remainder of the ridge was straight forward.

20 May

Light snow showers with sunny intervals. Decided that weather was unstable and stayed at base camp. Target practice with rifle - just in case any polar bears strayed up onto the glacier! (In reality not even a remote possibility).

21 May

Weather as yesterday. Built an igloo.

22 - 24 May

Continuing snow showers and almost total white out for 3 days. No movement from base camp possible.

25 May

The first part of the day was as previous days but later it began to look brighter.

At this stage in the expedition it was clear that due to the weather, snow conditions and time available, the mountaineering would be limited and the conditions possibly difficult. It was agreed that we would work together with the Tangent group to minimise danger and maximise chances of success on the peaks attempted.

The group decided to move out of the lethargy that now ensued and attempt a journey up the middle arm of the Upper Woolley Glacier. This proved to be a very long flat trip both in and out to a small peak at the head of the glacier. Whilst we referred to this as 'Little Thing' we did not reach the summit - probably about 100m short, and therefore have not named this.

² Our food freight and some of Tangent's equipment had been left at the basecamp of a previous expedition to Ejnar Mikkelsens Fjeld; a short distance from the Watkins Mountains. Whilst we had been stuck in Iceland, this team had been stranded at their base camp.

26 May

This was a frustratingly seemingly wasted day of good weather. The group had arrived back at base in the early hours of the morning and all were exhausted - therefore had no energy the next day although it dawned fine. Recovery day. We also realised that due to lack of activity we had hardly eaten for 2 days which no doubt added to our poor recovery.

27 May

An early start - 9.00 AM. From previous reports we knew that Pev would provide a good ski mountaineering peak. This proved to be a long but very satisfying day with stunning views. The ski-ing, however, was frustrating in difficult snow conditions.

Pev 3609m climbed by all six members.

28 May

The weather was variable, the peaks clouding in from time to time, however it looked hopeful. 4.30 PM start from base camp to attempt an unclimbed peak between Midnight Peak and Sphinx. The ascent appeared to be a simple ridge ascent. This proved to be harder than expected and gave 200m of enjoyable climbing above the col. The group went on to climb Midnight Peak under the rays of the midnight sun.

Pyramid Peak (first ascent) 3230 climbed by Robin, Charlotte, Tom and Chris.

Midnight Peak (second ascent) 3256 climbed by Robin, Charlotte, Tom and Chris

29 May

Day was reasonably clear but most of the day was required to recover from previous ascent. The peak directly above camp - Julia - was clearly a promising ski peak and it was decided to ascend this as the final climb. Straight forward ascent to the col but decision taken to ascend unclimbed summit to the south rather than Julia. For the first time the group enjoyed good ski-ing conditions and had a taste of the ski-ing potential in the Watkins Mountains.

International Peak (first ascent) 3410m climbed by Robin, Charlotte, Anne, Tom and Bruce

Chris, frustrated by the lack of opportunity for further exploration had at least wanted to experience pulling a pulk. 2 hours spent pulk hauling through deep snow up the eastern arm of the glacier.

30 May

Frustratingly our day for departure was a totally cloudless sky - the first we had had. However, it gave us the opportunity for a stunning flight for our return to Iceland. Due to logistics with another expedition we flew via the Rignys Bjerg mountain group³; this enable us to get exceptionally good views of the edge of the ice cap towards the west and mountains and coastline to the east.

³ We later heard that this group had clear skies for 21 consecutive days.

CONCLUSION

Whilst the expedition did not achieve its aim in entirety, it did, jointly with the Tangent Expedition climb 6 peaks, 4 of them previously unclimbed, and gave all the members an opportunity to experience Greenland and get a glimpse of this wonderful wilderness.

It is very expensive and one has to question the money spent when balanced with activity gained. We were particularly unlucky with the weather. Although the effect of the weather had a significant impact on the success of the trip all members had been enraptured by Greenland and the wilderness experience it offers.

Due the amount of snow that fell both immediately before and during the time we were in the area, combined with the weather restricting our time, exploration further afield was not possible.

Peaks Climbed:

Sphinx (first ascent) 3210m was climbed by Robin, Charlotte and Tom.

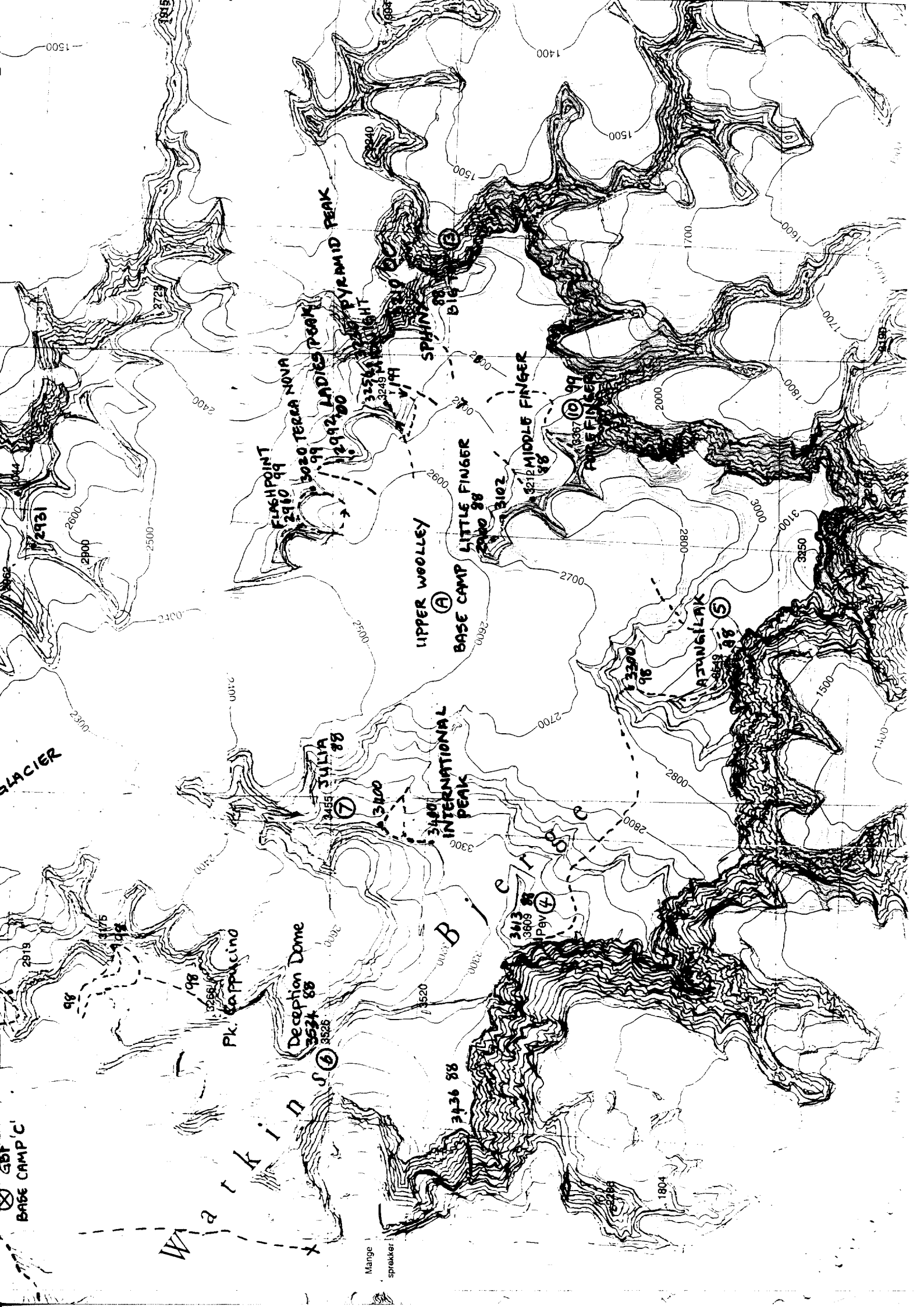
Ladies' Peak (first ascent) 2992m was climbed by Robin, Charlotte, Tom and Bruce.

Pev 3609m climbed by all six members.

Pyramid Peak (first ascent) 3230 climbed by Robin, Charlotte, Tom and Chris.

Midnight Peak (second ascent) 3256 climbed by Robin, Charlotte, Tom and Chris

International Peak (first ascent) 3410m climbed by Robin, Charlotte, Anne, Tom and Bruce



GBT
BASE CAMP C

M

Mange
sprækker

GLACIER

Pk. Cappuccino

Deception Dome
3524 88
3526

JULIA 88
3451
3452

B

INTERNATIONAL PEAK
3400

UPPER WOOLLEY
BASE CAMP
LITTLE FINGER
2400 88
3102

C
D
E
3413 88
3809 88
IPev
4

MANGALAK
3200 88
3201 88
5

MIDDLE FINGER
3212 88
3367 99
6

FLASHPOINT
2910 99

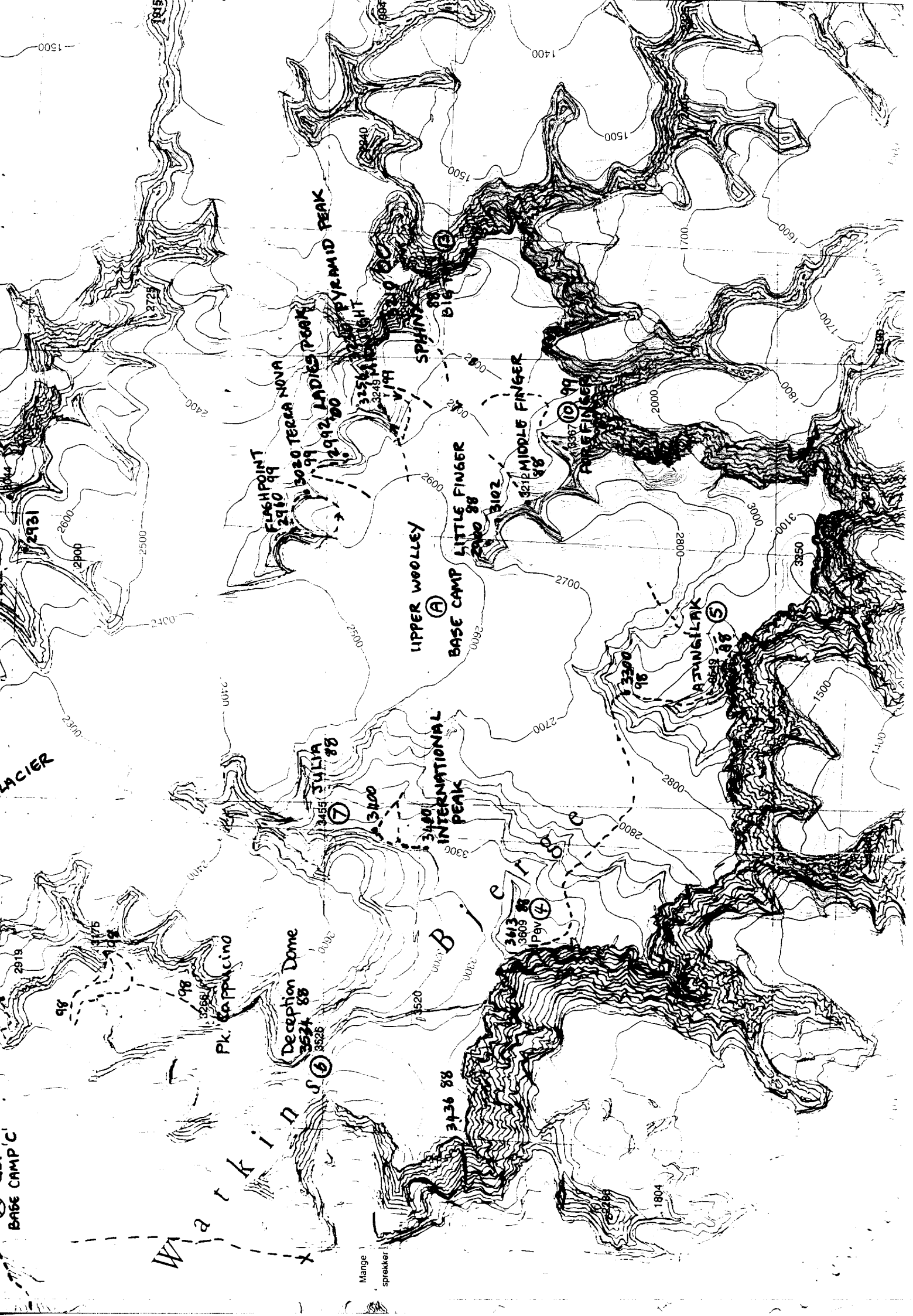
TERRA NOVA
3020 99

LADIES PEAK
2992 99

PYRAMID PEAK
3256 99
3249 99
7

SPRING
88
88
8

Big 88
9



APPENDIX I

FINANCIAL REPORT

Expenditure	£ Sterling
Fares/Freight/Other travel costs/Safety equipment*	7800
Flights - Anne and Charlotte	600
Insurance	600
Food	417.63
Administration	45
Maps (Watkins Mtns)	27.55
Map (Greenland)	7
Medical Supplies	100
Travel to Paul's house to arrange logistics	25
Travel to Paul's house to deliver freight	25
Photocopying - applications etc.	8.7
Satellite photos	28.2
Photographs - colour for general inform.	38.95
Travel to London for interview (Chris)	68
Travel to London for interview (Anne)	90
Travel/expenses in London – interview	20
Photocopying - at RGS	0.9
Bank transfer charges (Europe to UK)	42
Bank transfer charges (UK to Europe)	14
Reports and postage (to be supplied to grant awarding bodies, etc.)	40
Postage of tents to Terra Nova	8.2
Slide copying for sponsor	10
Excess Baggage – Iceland to UK/Europe	70
TOTAL EXPENDITURE	10086.13
Income	
Gino Watkins Memorial Fund	1200
Mount Everest Foundation	600
British Mountaineering Council	600
British Alpine Ski Club	400
Dutch Alpine Club	300
Sale of promotional T-shirts	770
Individual Contributions	6216.13
TOTAL INCOME	10086.13

Accommodation (For additional 7 nights), food and other expenses in Iceland
Approximately £400 per person - paid for by each individual.

Equipment and clothing necessary for the expedition was purchased by individual members.

* This included: Chris's flight, all twin otter flights, hire of pulks, radios, IPRBS and flares, accommodation in Iceland for 3 nights, permit to climb.

APPENDIX II

EQUIPMENT LIST

Personal Clothing - per person

Gore-Tex shell jacket	1
Gore-Tex salopettes/trousers	1
Expedition weight underwear	1
Lightweight underwear	1
Fleece/pile jacket	1
Fleece/pile trousers	1
Light weight fleece/additional thermal layer	1
Down jacket	1
Down vest - optional	1
Under gloves	2
Fleece/pile/dachstein/down mittens	2
Gore-Tex overmitts	1
Gore-Tex overmitts - (one spare pair for the group)	1
Wool socks or pile socks	3
Down or fleece booties for sleeping/in tent	1
Sunhat (optimist!)	1
Fleece or down ski hat	1
Fleece/wool headband	1
Balaclava - light weight	1
Balaclava - heavy weight	1
Sleeping mask (to block out daylight) - optional	1
Glacier glasses	1
Glacier glasses (spare pair)	1

Personal Equipment

Sleeping bag - expedition quality	1
Silk or cotton liner	1
Thermarest	1
Camping mat - for greater insulation and can be used if we decide to bivouac.	1
Gore-Tex bivvi bag - even if do not bivvi can provide extra warmth in tent	1
Penknife	1
Lighter	1
Matches (small boxes)	3
Storm proof matches	2
Bowl, spoon and knife	1
Mug	1
Water bottle or ortleib bag	1
Thermos Flask	1
Sun cream - large tube	1
Lip - sunblock	1
Personal first aid kit	1
Blister kit - each individual	3
Ruc-sac	1
Large duffel/or second ruc-sac for storing gear	1

& transporting on pulk.		
Plastic bags - various sizes	lots	
Tooth brush	1	
Other essential toiletries as think necessary		
Wet wipes pkt.	1	
Pee bottle	1	
Handkerchiefs		
Washing cream for socks/underwear		
Small towel		
Boots	1	
Gaiters	1	
Avalanche transceiver	1	
Batteries	one spare set	
Crampons	1	
Skis	1	
Ski crampons/harschneisan	1	
Ski poles	1	
Bindings repair kit	1	
Skins	1	
Glue for skins (spray)	1	
Ice axe	1	
Ice screw	2	
Karabiners - screw gate/locking	3	
Karabiners - snap link	2	
Prussiks or rope men	2	
Pulley	2	
Harness	1	
Compass	1	
Altitude meter		
Whistle	1	
Avalanche probe	1 <u>each</u>	
Shovel	1 <u>each</u>	
Camera gear as individual preference	1	
Film - amount as fits individual desire.	10 - 15 approx.	
Notebook	1	
Pen/pencil	1	
Books	2	

Group Equipment

Tents - <i>Hyperspace</i>	2	<i>Terra Nova</i>
Plastic insulating sheets for under tent	1	<i>Anne</i>
Snow stakes for tents, skis, pulks	20	<i>Paul</i>
Pulks	3	<i>Paul</i>
Rope 8/9mm - 30m	1	<i>Chris (1 @ 30m)</i>
Rope 8/9mm - 40m	1	<i>Charlotte (1 @ 40m)</i>
Deadmen	2	<i>Anne</i>
Set of rocks	1	<i>Charlotte</i>
Binoculars	1	<i>Charlotte</i>
MSR stove	2	<i>Chris and Charlotte</i>
Small pan	2	<i>Chris</i>
Large pan	2	<i>Anne and Chris</i>
Pan handle	1	<i>Anne & Chris</i>

Funnel for water	1	<i>Chris</i>
Funnel for fuel	1	<i>Chris</i>
Bottles for fuel (5 litre plastic bottles)	3	<i>Paul</i>
Aviation fuel (collected from plane in Iceland)	15 litres	
MSR bottles	2	<i>Chris (2)</i>
Wash-up kit	1	<i>Chris</i>
Toilet paper	4 rolls	<i>Chris</i>
Distress beacon	1	<i>Paul</i>
VHF radio	1	<i>Paul</i>
Miniflares (pack of 8)	1	<i>Paul</i>
Skins (one spare pair)	1	<i>Charlotte</i>
Spare skis	1	<i>Anne</i>
Spare poles	1	<i>Chris</i>

Repair Kit

Glue for skins (tube)	1	<i>Chris</i>
Quick araldite glue	1	<i>Chris</i>
String	1	<i>Chris</i>
Needle	pkt.	<i>Chris</i>
Thread - strong	1	<i>Chris</i>
Thread - light weight	1	<i>Chris</i>
Thread - wool	1	<i>Chris</i>
Thermarest repair kit	1	<i>Chris</i>
Duck tape - large roll	1	<i>Chris</i>
Patches of cloth - different types	4	<i>Chris</i>
Wire	1	<i>Chris</i>
Binding repair kit	1	<i>Charlotte or/and Anne</i>

MEDICAL KIT

SYMPTOM

sore throat
 soured muscles
 a cold, muscle pain, fever
 teeth pain
 headache, weariness
 pain in the back, slight inflammation
 strong painkiller
 little bruise, distortion
 muscle cramps
 Inflammation of the respiratory tract
 dry eyes (preventive)
 inflammation of the eyes
 cystitis
 menstrual pains
 colic, abdomen or renal
 intestinal infection
 diarrhoea
 laxative
 nausea
 vitamin complex
 sleeplessness
 skin cracks, little abrasions
 sunburns
 minor burnings
 infections of the skin

MEDICINE

Moment (ibuprofen), synflox
 tiger balsam
 Aspirin C, Novalgina
 Novalgina
 Tachipirina (Paracetamol)
 Voltaren
 Toradol
 Lasonil
 Polase
 Zimox (amoxicillina), Clavulin
 Collirio
 Collirio alfa, Betabioptal
 Furadantin
 Novalgina
 Bactrim F, Novalgina
 Hafeson
 Immodium
 prugne secche
 Plasil

 Tavor
 Cicatrene, powder and cream
 Foille
 Foille
 Clavulin

2 triangular bandages
 1 SAM-splint
 1 scissors
 1 foreceps
 2 pairs of sterile gloves
 1 thermometer
 needles
 disinfectant
 10 sterile wound dressings 7.5 x 7.5 cm
 3 sterile wound dressings 10 x 10 cm
 3 melolin sterile dressings
 2 burns dressings
 2 pressure dressings
 3 sterile gauze
 1 roll of plaster
 1 blister kit
 2 packs of steri-strip
 1 elastic bandage
 second skin
 tape
 emergency filling paste (dental)
 Anti histamine

substitute for stitches

APPENDIX IV

USEFUL ADDRESSES

Paul Walker, Tangent Expeditions, 3 Mill Beck, New Hutton, Kendal, Cumbria, LA8 OBD. E-mail: paul@tangentexp.demon.co.uk Tel: 1539 737757

Danish Polar Centre: Strandgade 100 H, DK-1401 Copenhagen. E-mail dpc@dpc.dk
Website: www.dpc.dk

Secretary, Gino Watkins Memorial Fund Committee, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge, CB2 1ER. Tel: 01223 336540

Secretary, Mount Everest Foundation, Gowrie, Cardwell Close, Warton, Preston, PR4 1SH

Secretary, The Alpine Ski Club, 34 Clarence Way, Langshott, Horley, Surrey, RH6 9GT

Terra Nova, Ecclesbourne Park, Alfreton, Derbyshire, DE55 4RF. Tel: 01773 833300

Harvey Maps, Main Street, Doune, Stirlingshire.

Author of Report/Further Details

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Alexandria
Dunbartonshire
G83 8LA

e-mail: cwatkins@globalnet.co.uk

FOOD LIST

APPENDIX V

PACK 1

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	Chinese vegetables	15
		Sauce	136
		Rice	144
Lunch			
Salami	200	Cake*	200
Snickers bar or marzipan	322	Custard	200
Almond cake	181		
Chocolate power bar	114	Additional Treats	
fruit sweets	25	Chocolate digestives	700
Crunchy bar	155	Jelly Beans	50
dried fruit	170		
		Total calories	3502
		Total weight*	3.7 kg

PACK 2

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	Polenta	300
		mushrooms	
		sundried tomatoes	
		suasage	640
Lunch			
Salami	200	Cake*	200
Fruesli bar	131		
Hazelnut wafers	150	Additional Treats	
Mars bars/marzipan	293	Hob knob biscuits	350
nuts and raisins	270	after eights	100
fruit sweets	25		
		Total calories	3549
		Total weight*	3 kg

PACK 3

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	Couscous	580
		Almonds and raisins	600
Lunch			
Peperrami	132	Cake*	200
snickers	322	Additional Treats	
sultana biscuits	170	ginger biscuits	450
dried fruit	200	after eights/jelly beans	100
energy bar	114		
fruit sweets	25	Total calories	3783
		Total weight*	3 kg

PACK 4

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	risotto	215
		ham	120
Lunch			
pepperami	132		
lemon bar	150	Cake*	200
crunchy bar	170		
chocolate	500	Additional Treats	
flapjack	220	ginger biscuits	450
fruit sweets	25	liquorice allsorts	261
		Total calories	3333
		Total weight*	3.2 kg

PACK 5

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	polenta	300
		sausage	420
Lunch			
biscuits	170		
snickers	322	Cake*	200
pepperami	132	jelly	100
cheese	140		
marzipan/flapjack/energy	350	Additional Treats	
fruit sweets	25	chocolate biscuits	350
		liquorice allsorts	261
		Total calories	3660
		Total weight*	2.9 kg

PACK 6

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	bacon grill	320
		mash	150
		crunchy onions	80
Lunch			
salami/cheese	200		
crunchy bar	155	Cake*	200
marzipan	350		
chocolate	400	Additional Treats	
fruit and nuts	222	chocolate biscuits	450
fruit sweets	25	after eights	100
		Total calories	3542
		Total weight*	2.8 kg

PACK 7

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	rice	144
		cashews	384
		sauce	110
		vegetables	30
Lunch			
fruit bars	176		
mars bars	293	Cake*	200
peperami	132		
fruit and nuts	222		
flapjack	220	Additional Treats	
fruit sweets	25	bisuits	450
		wine gums	200
		Total calories	3476
		Total weight*	3.2 kg

PACK 8

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	spaghetti	600
		herbs/sauce	0
		sausage	484
Lunch			
Mars bar	293		
fruit pie bar	176	Cake*	200
maltloaf	170	custard	116
cheese/salami	200		
fruit sweets	25	Additional Treats	
		chocolate biscuits	700
		jelly beans	
		Total calories	3854
		Total weight*	kg

PACK 9

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	mash	150
		mince	221
		crunchy onions	70
Lunch			
peperami	132		
nutri grain bar	130	Cake*	200
mars bar	293	custard	116
chocolate	450		
fruit sweets	25	Additional Treats	
		chocolate biscuits	700
		jelly beans and after 8s	100
		Total calories	3477
		Total weight*	kg

PACK 10

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	pasta complete soya	460 80
Lunch			
fruit bars	176		
snickers (CW flapjack))	322	Cake*	200
chocolate	450		
fruit and nuts	220	Additional Treats	
salami	200	chocolate digestives	350
fruit sweets	25	dates	200
		Total calories	3573
		Total weight*	2.4 kg

PACK 11

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	spaghetti soya herbs mushrooms	600 80
Lunch			
snickers bars	322	Cake*	200
cake bars	176		
cheese or peperami (CW)	180	Additional Treats	
flapjack	220	hob knob biscuits	450
energy bar	114	after eights	100
fruit sweets	25		
		Total calories	#REF!
		Total weight*	2.7 kg

PACK 12

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	mash beanfeast	150 270
Lunch			
peperami	132		
nutri grain	130	Cake*	200
mars (flapjack CW)	293	custard	116
chocolate	450		
fruit sweets	25	Additional Treats	
		chocolate digestives	700
		after eights	100
		Total calories	3456
		Total weight*	2.6 kg

PACK 13

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	couscous	580
		almonds and raisins	600
Lunch			
sultana biscuits	170		
almond cakes	186	Cake*	200
peperami	132		
carob flapjack	270	Additional Treats	
dried fruit	170	Hob knob biscuits	450
fruit sweets	25	chocolata hazelnuts	100
		Total calories	3773
		Total weight*	2.5 kg

PACK 14

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	spaghetti	600
		beanfeast	262
Lunch			
cheese/peperami	132		
malt loaf	170	Cake*	200
nutrigrain	176		
snickers bar	322	Additional Treats	
fruit sweets	25	chocolate digestive	350
energy bar	114	salted peanuts	500
		Total calories	3741
		Total weight*	2.4 kg

PACK 15

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	pasta meal	470
		salami (Italy)	200
Lunch			
cheese or peperami	132		
biscuits	170	Cake*	200
snickers bar	322	custard	116
marzipan	350		
malt loaf	170	Additional Treats	
fruit sweets	25	chocolate digestives	350
		salted peanuts	600
		Total calories	#REF!
		Total weight*	2.8 kg

PACK 16

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	risotto	212
		sausage	420
Lunch			
mars bar	293		
energy bar	114	Cake*	200
nutri grain	130	custard	116
almond cake	181		
fruit and nuts	222	Additional Treats	
fruit sweets	25	chocolate digestives	700
salami	200	liquorice alsorts	260
		Total calories	3963
		Total weight*	2.4 kg

PACK 17

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	50
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	pasta meal	470
		salami	250
Lunch			
pepperrami	132		
fruit bar	176	Cake*	200
snickers	322		
flapjacks	320	Additional Treats	
fruit sweets	25	ginger biscuits	450
		deluxe bisuit	150
		Total calories	3420
		Total weight*	2.2 kg

PACK 18

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	20
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	spaghetti	600
		beanfeast bolognaise	200
Lunch			
crunchy bar	155		
peperami	130	Cake*	200
snickers	322		
nuts and raisins	220	Additional Treats	
malt loaf	220	chocolate digestives	350
fruit sweets	25	peanuts	500
		Total calories	3817
		Total weight*	2.1 kg

PACK 19

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*	50	risotto	453
		salami	200
Lunch			
cheese (CW peperami)	150		
snickers	322	Cake*	200
almond cake	183		
nuts and raisins	270		
flapjack	220	Additional Treats	
fruit sweets	25	hob knob biscuits	450
		peanuts	500
		Total calories	3863
		Total weight*	2.1 kg

PACK 20

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*A22	50	risotto	405
		soya	80
Lunch			
fruesli bar	131		
hazelnut wafers	150	Cake*	200
snickers	322	jelly	100
dried fruit	190		
cheese/salami	200	Additional Treats	
fruit sweets	25	chocolate digestives	700
		jelly beans and mini ritters	100
		Total calories	3493
		Total weight*	2.6 kg

PACK 21

	Calories		Calories
Breakfast and Staples		Dinner	
Porridge/muesli*	250	Soup	15
Army biscuits/oat cakes	445	Croutons	130
Spreads (various)*A22	50	savoury rice	391
		sausage	420
Lunch			
snickers	322		
crunchy bar	155	Cake*	200
nuts and raisins	270	jelly	100
marzipan	350		
peperami	132	Additional Treats	
fruit sweets	25	chocolate digestives	350
		peanuts	500
		Total calories	4105
		Total weight*	2.6 kg

<p>Breakfasts</p> <p>Bag One and Two</p> <p>Porridge Crunchy cereal instant hot cereal raisins</p> <p>Total weight</p>	<p>Cakes</p> <p>Chris's cake Chris's mum's cake</p> <p>Total weight* 3 kg</p>
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<p>Spreads</p> <p>Margarine 500 g strawberry jam 450 g apricot jam 400 g nutella 450 g</p> <p>Total weight</p>	<p>Seasonings</p> <p>Bag One</p> <p>Olive oil salt* mixed herbs tomato puree vegetable puree dried mushrooms* dried aubergines* dried peppers dried onions* stock cubes*</p> <p>Total weight 2 kg</p> <p>*Also in Bag Two</p>
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DRINKS					
Bag One		Bag Two		Bag Three	
Tea bags		Tea bags		Tea bags	
fruit teas		coffee		coffee	
mint tea		cappucino		cappucino	
coffee		cocoa		cocoa	
cappucino		sugar		sugar	
cocoa		milk		milk x 2	
sugar		herb tea		herb tea	
milk		lemon tea		lemon tea	
Monique's elixiar					
herb tea					
lemon tea					
Isotar drink	2 x 500 g				
Total weight	3.3 kg	Total weight	1.75 kg	Total weight	2 kg

SPARE FOOD	
Lentils	500 g
pasta	750 g
army biscuits	1 pkt
ham	tin
tuna	tin
sardines	2 tins
Cheddars	21 pkts
Golden syrup mini cakes	10 cakes
Fruit & nut bar	7 bars
Pancake mix	2 x 500g