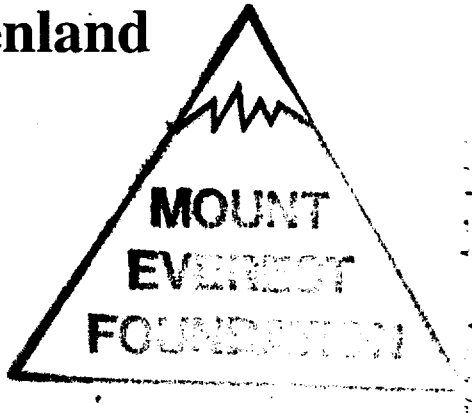
Rucksack Club Expedition to the Watkins Mountains of Greenland 2004



SNoW-04

To explore and ascend, on ski or on foot, unclimbed peaks in the proximity of Gunnbjornsfjeld, between 25th May and 10th June 2004.

Leader/Author:
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Contents

Distribution

MEF (4 copies)
Jim Hall
Bob Kerr
Ros Murray
Rae Pritchard
Paul Walker
Chris Solheim-Allan
Anne-Marit Rodland

Summary

This is the Expedition Final Report for ski mountaineering expedition SNoW-04. The expedition comprised three members, and one aspirant member, of the Rucksack Club. It had the primary aim of exploring and ascending unclimbed peaks in the Watkins Mountains of East Greenland. It was based in proximity to Gunnbjornsfjeld, the highest peak in Greenland, because much reconnaisance had already been carried out in this area and our secondary aim was to reascend some of the high mountains of the Greenland, for which this area is well known.

The expedition spent 18 days in the region and we considered that our objectives had been achieved. We climbed 3 new peaks, explored what we believed to be an untravelled glacier, and also managed to ascend Gunnbjornsfjeld and Qaddaq Kershaw, the two highest mountains in the Arctic.

Introduction

The merits and challenges of an expedition to the Watkins Mountains of East Greenland, which would include the opportunity to claim first ascents of new peaks as well as the highest mountain in the Arctic, made it an appealing proposition. Although remote, the area is becoming more accessible, it has stable weather and is not hidebound with the bureaucracy, altitude, food and language difficulties that dogs a himalayan expedition.

The expedition was originally conceived as a joint Scottish-Norwegian party of at least six ski-mountaineers who had previous acquaintance with some or all the others. These individuals were experienced mountaineers in Europe, wishing to apply their skills to a relatively unexplored area of the world. Numerous changes in team composition throughout 2003 resulted in a final team of four, including a new leader, largely made up of Rucksack Club members with extensive Alpine climbing experience, albeit with limited skiing capability. Two special training trips were carried out in early 2004 in order to familiarise the team with the equipment and techniques required to be a competent ski mountaineer. We all went to Norway (Geilo) at New Year and some of us also managed a trip to the Alps (Vanois and Chamonix) at Easter.

When it came to the expedition itself, in order to minimise time away from our employment, it was decided to fly directly onto a glacier at 2000m where a base camp would be established in proximity to the peaks of interest. We would then spend nearly three weeks as a self contained unit, exploring on ski, often to 3000m, and climbing our mountain objectives. Base camps were to be established on glaciers and would consist of 2-person mountain tents (we used our own Mountain Equipment Quasars) and, if appropriate, igloos or snow holes. Mobility would be maximised by the use of Nordic or Alpine ski-mountaineering equipment and weight would be kept to a minimum to facilitate base camp relocation.

The expedition was unguided and entirely self financing. Detailed applications for financial support had been made to the Mount Everest Foundation, the British Mountaineering Council and the Mountaineering Council of Scotland, but without success. The reason for this failure was not conveyed to us.

This report was written using the format and advice included in "Guide to Writing Expedition Reports" by Shane Winser and Nicholas McWilliam, and available on the Royal Geographical Society website www.rgs.org.

Expedition Members

Team members had been recruited on the basis of:

1 Experience in ski-mountaineering.
2 Personality & character.
3 Medical qualification & experience.
4 Glacier experience.

In addition to competent climbing and skiing, their contributions and responsibilities to the expedition comprised:

Jim Hall	Leader. Organisation & Administration, Climbing Safety Adviser. Point of Contact with Tangent.
Bob Kerr	Deputy Leader & Treasurer. Safety Equipment, First Aid, Rescue Techniques. Fund raising & publicity in Scotland.
Rosalind Murray	Film team.
Rae Pritchard	Film team.

The mountianeering CV of each of the members is included in Appendix I.

Adventurous Activities

The Watkins Mountains are on the edge of the Greenland ice cap, North of the 68th parallel and approximately 80 nautical miles from the coast of East Greenland. Most peaks are in the 3000m + range whereas the ice-cap and glaciers that provide the transit routes are over 2000m above sea level.

Following analysis of available information, which included aerial photographs, we believed that a significant number of unclimbed peaks lay to the East of the Woolley Glacier which would therefore be the initial site of our base camp. Our secondary objectives were Gunnbjornsfjeld and its neighbouring high peaks. This would necessitate a relocation of our base camp to the Gunnsbjornsfjeld Glacier and for this, we had three pulks and harnesses.

Although not particularly high by greater range standards, Gunnbjornsfjeld (aka GBF) at 3693m is the highest mountain in Greenland and within the Arctic Circle. The dense off-shore pack ice and tortuous on-shore terrain makes approach from the sea difficult and time consuming, although in the early years of its exploration several noteworthy expeditions had come that way. An Anglo-Danish party, that included Jack Longland, first climbed the mountain in 1934 and by the Millennium it had had some thirty ascents. It was named by the Danish (Greenland was until recently a colony of Denmark) after one of the Norsemen who is thought to have used it as an aid to navigation, calling it Hvitserk (white shirt).

We flew by scheduled air service to Iceland (Keflavik) on 23 May 2004 and entered and exited Greenland by means of a ski-equipped Twin Otter aircraft operating from Northern Iceland (Isafjordur). This aircraft landed on the Woolley Glacier in the heart of the Watkins Mountains, where we established our first base camp. We were recovered from the site of our second base camp on 10 June 2004, for return to UK via Iceland. This time of year was chosen as appropriate for a worthwhile climbing expedition because:

a. There is reasonable probability of good weather conditions,
b. It remains sufficiently cold for a stable snow-pack.
c. The degree of cold is tolerable.
d. Daylight will be 24 hours.

However we were somewhat disappointed to find on arrival that most of our initial, identified objectives had just been climbed by a Royal Navy expedition who were just leaving after spending a month at our first base camp site. Nevertheless, in the first week we did much exploration and managed first ascents of:

- Top 3020m (a subsidiary top of Midnight Peak) at 68°51'N 29°17'30"W by the North ridge (starting from the South side).
- Peak 2908m at 68°53'45"N 29°16'45"W and its subsidiary top (2750m) at 68°54'N 29°15'30"W, each by their South-West ridges.

I don't think the summits justify naming but we were referring to them as Afternoon Peak (aka Cold Fusion), Wyvis and Minaret respectively. These peaks were around an Eastern tributary to the Woolley glacier (that could be appropriately called the Fleece Glacier) and were climbed from the base camp on the Woolley glacier. The climbing grade was not much more than "Facile", which is just as well considering the remoteness of the hills and inappropriateness of our attire (most of us had ski mountaineering boots).

There were two unsuccessful attempts at an attractive mountain, Pt 2725, at the head of the Fleece glacier, and these were defeated by a long ridge knife-edge exposed arete of unconsolidated snow. Another major disappointment was turning back (at midnight) close to the summit of Julia (7th highest in Greenland at 3455m) because of cold feet (literal and metaphorical).

After a week on the Woolley glacier we decided to move base camp around to GBF and we were proud that we managed to move the entire equipment by pulka. This was about 20km with estimated loads of 80-100kg, which we achieved in one haul of 8 hours.

At this point, our adventurous activities were impeded by a deterioration in the weather when low cloud and fresh snowfall diminished our motivation to go onto the mountain. At the first improvement in the weather, we climbed GBF (3693m) and Qaddaq Kershaw (aka Dome, 3682m) by the normal (easy) routes. The ascents each took around eleven hours round trip from the GBF base camp at 2153m even though Dome required 30km of ski mountaineering. There then remained only sufficient time for sorting and packing gear before the Twin Otter's arrival, which we welcomed becuase everyone had had enough of the fairly monotonous, mainly dehydrated diet.

We were also tired of living in a sterile environment of rock and snow. There was no native flora or fauna anywhere (not even lichens) although a bluebottle fly (probably brought in with the equipment) was a round the tents for the first few days and a gull (probably a Tern) was spotted close to camp on more than one occasion. We did not expect to see polar bears (they are unknown at this altitude) but we took a rifle anyway, proving to be an expensive and superfluous burden, although it might have been a reassurance to some members.

We had been lucky though because the weather was very settled with no wind. The days lost to climbing were because of mist and light snowfall that was caused by trapped cloud under the anticyclone (we had a spectacular temperature inversion on the day we climbed GBF). Cold was not a problem at base camp (Ros and Rae even spent a night in an igloo), in fact the temperature inside the tent rose rapidly in the morning, to a recorded high of over 40degC! Outside it was always a comfortable sub-zero which ensured that everything stayed dry (the radiant energy of the sun sublimated any loose snow off gear).

The locations of our camps and the peaks that we climbed are marked on the attached map. A detailed expedition log is included as Appendix II

Administration and Services

Logistic and administrative support, including flights, certain specialised equipment and permits were obtained from Tangent Expeditions of Kendal, England. The full details of Tangent's 'all inclusive logistics package' are listed in Appendix III. The equipment taken on the expedition is listed in Appendix IV.

Bob Kerr assembled the medical equipment for the expedition and this is listed in Appendix V. The equipment had to be lightweight and enable treatment for major and minor trauma, pain suppresion, long term stabilisation, anti-biotics, burns and dental problems.

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Safety Considerations

The Watkins Mountains are 360 km (200 nautical miles) from the nearest habitation, being Scoresbysund with a population of 600. Any injury incurred will be onerous because of the remoteness of the location. All mountaineering has risks and all team members were aware that they were entirely responsible for their own safety whilst on the expedition. Risks were minimised to a degree beyond measures considered normal in Scotland where mountain rescue can be quickly accessed. Risks were assessed and mitigation applied as detailed in Appendix VI.

Conclusions

1. It was a generally successful expedition and we managed to stay free of accidents and sickness.

2. The area confirmed its reputation for good weather and beautiful mountains.

3. We climbed the Gunnbjornsfjeld and Qaddaq Kersahw (the two highest mountains in Greenland/ the Arctic) in addition to first ascents of a couple of other lesser peaks in the area.

4. We did nearly 200km of ski-mountaineering, despite being relative beginners.

5. Whilst the trip may not be described as particularly CV enhancing, it was, as well as a great adventure, also worthwhile as a learning experience for everyone with regard to surviving comfortably in upland Greenland in addition to ski-mountaineering in general. Individually, it was the first time I'd had the responsibility of leading an expedition, it was Bob's introduction to Alpinism and Rae's to real skiing.

6. For our type of expedition, I believe that Alpine touring bindings were more suitable than Telemark gear because the emphasis was on climbing mountains rather than lightweight touring.

7. We found the glaciers to be very safe and enjoyable for skiing because of the easy gradients, depth and consistency of the snow, hardly ever roping up. When off ski on the mountain, below 3500m, the snow was unconsolidated and emitted alarming noises when loaded, even on gentle slopes, although there was very little evidence of slab avalanche. We witnessed some spectacular serac falls however and did manage to get intimate with a couple of small crevasses.

8. The rock is basalt and very stratified, suggesting an instability that deterred us from climbing any of the rockier ridges. However quite solid rock was found on the ascent of Gunnbjornsfjeld and so I believe that there is scope for the development of moderate grade rock climbing in the area (a couple of Tower Ridge-like lines to unclimbed summits were identified from base camp).

9. The worth of applying for grant aid should be carefully considered because the time and effort required is quite extensive. It would be helpful if meaningful pre-application guidelines and advice were available, to assess the liklihood of success.

Acknowledgements

Although most of us were experienced winter climbers, we were all new to ski-mountaineering and were aware that a remote area like the Watkins Mountains, the highest in the Arctic, was probably not the best place to make any mistakes. However the former leader, Chris Solheim-Allen, had convinced us of the merits of Greenland and the primary objective, an ascent of the highest mountain in the Arctic, was sufficient to make this an appealing challenge. As well as being an inspiration, Chris, together with Anne-Marit Rodland, provided much help and advice whilst we were training in Norway.

The logistical support (i.e. flights, special equipment, food and fuel) was obtained from Paul Walker of Tangent Expeditions (Tel. 0044 1539 737757 / 737756 [fax], 0044 7887 556089 [mobile]), who also provided much information and advice on the expedition area and equipment.

APPENDIX I

Expedition Team CVs

Jim Hall

Address:	Craigdhu, Braeside Place, Newtonmore, Scotland.
Telephone	0044 / 0 1540 673475 (mob) 0795 115 0944
Email:	jim.hall@craig-dhu.fsnet.co.uk
Occupation:	Chartered Engineer
Age:	50
Experience:	30 years mountaineering experience worldwide. Very experienced Alpinist upto TD standard, and member of Himalayan expeditions. 10 Years alpine skiing, trained in nordic mountain skiing. Basic first aid certificate

Bob Kerr

Address:	Seaview, 108 Portskerra, Melvich, Sutherland KW14 7YL, Scotland
Telephone	0044 / 0 1641 531239
Email:	robert.kerr@ukaea.org.uk
Occupation:	Health Physicist
Age:	25
Experience:	15 years mountaineering experience in Scotland & Norway. 10+ years alpine skiing, trained in nordic mountain skiing. Assynt Mountain Rescue Team Training Officer (2000 -) Summer Mountain Leader (trained) & Single Pitch Award. MRCofS Avalanche Awareness Course. BASP Emergency Medical Technician.

Ros Murray

Address:	44 Salthouse Rd., Barrow-in-Furness, Cumbria LA14 2AG
Telephone	0044 / 0 1229 877149
Email:	rosalind.murray@baesystems.com
Occupation:	Metallurgist
Age:	26
Experience:	10 years UK & 5 years alpine mountaineering experience. 15 years alpine skiing, + some nordic mountain skiing. Basic first aid certificate

Rae Pritchard

Address:	69, Bolton Rd., Silsden, West Yorkshire BD20 0JT
Telephone	0044 / 0 1535 653855
Email:	rae@pritch96.fsnet.co.uk
Occupation:	Engineer
Age:	37
Experience:	20 years mountain walking in UK Scottish winter climbs to Grade 3/4/5 10 years Alpine Mountaineering up to AD grade Ascents of Mt Kenya and Kilimanjaro

APPENDIX II

Expedition Log

Day 1 Arrival on Woolley Glacier. Tents quickly erected as weather rapidly deteriorates in light snow showers.

Day 2 Gear shakedown. Good weather so skiied up Fleece glacier to bag minor top visible from base camp. Rae and Ros continue on foot in poor snow up knife edge arete to summit of Minaret.

Day 3 A more adventurous day with long ski to Upper Wooley Glacier. Then on foot to summit of Afternoon Peak. Reasonable snow and fantastic views. Hot but easy ski back to base camp.

Day 4 Back up the Fleece Glacier to climb Wyvis, up a fine snow arete. Good weather continues.

Day 5 Skiied to top of Fleece glacier to find a way onto Pk 2795. Defeated by fragile snow at the bergshrund. Ros and Rae had rest day.

Day 6 Bob and Rae on second (overnight) attempt at Pk 2795. Jim and Ros turn back as clouds threaten a deterioration in the weather. Rae and Bob turn back from the ridge, defeated by fragile and exposed snow arete.

Day 7 Overnight attempt on Julia defeated by cold, 200m from summit ridge.

Day 8 Overnight move of base camp to GBF.

Day 9 Rest day.

Day 10 Weather finally breaks down with low cloud and light snow fall. Enforced rest day, not unwelcome. Igloo constructed.

Day 11 Slight improvement in weather. Bob and Jim skiied to East side of glacier to investigate climbing possibilities on virgin peaks.

Day 12 Relapse in weather enforces another rest day. Concern increasing over achieving GBF objective. Return flight only 5 days away.

Day 13 Break in weather rouses me and Bob and we leave for GBF at 08:30. Ros and Rae follow an hour later, indeterioriating snow as the temperature rises. Bob and Jim summit at around 3pm as Ros and Rae turn back exhausted, having got just over half way. Temperature inversion above 3300m and valley cloud thickens as they return in minimal visibility, following their tracks to camp.

Day 14 Rest day. Less cloud.

Day 15 Fine day. Ros and Rae climb GBF in a round trip of 8 hours as Bob and Jim explore route to Dome, considering it feasible in one push from base camp.

Day 16 Rae, Bob and myself set out early from base camp and achieve summit of Dome after 15km of skiing and 1500m of ascent. Beautiful day with excellent views. Back in cmap after a round trip of 11 hours.

Day 17 Sorting and packing equipment for uplift. Weather excellent.

Day 18 Plane arrives on schedule and we depart Greenland, satisfied but sad..

APPENDIX III

Tangent Expeditions – Extent of Supply

1 Return schedule flight from the UK to Iceland. Return flight transfers in Iceland; coach transfers in Iceland; Iceland hostal accommodation.

3 Private Twin Otter (ski plane) charter flights to/from the mountains; Twin Otter handling, take-off and landing fees; Twin Otter fuel; Twin Otter airport standing ground fees; Pilot meals & accommodation in Iceland and Greenland whilst on contract; all airport taxes; all passenger fees.

4 Sea or air freight of food and equipment from UK to Iceland; (again, this proportion will be deducted if Norwegians wish to send their freight direct).

5 Sea or air freight of food and equipment from Iceland to Greenland; return of above equipment from Greenland to UK via Iceland or Denmark; freight handling / storage / transfer charges in UK, Denmark, Iceland and Greenland; all freight customs and export/import documentation charges.

6 Radio, expedition and firearms permits.

7 Camping (MSR) stoves and fuel.

8 Arrangement of the insurance (the actual policy premium payment is extra).

9 Arrangement of paperwork involved in the special compulsory insurance declaration to the Danish authorities.

10 Access to extensive research facilities, including; expedition reports database, hundreds of aerial survey photographs covering all the important climbing areas in Greenland.

11 All the relevant maps, aeronautical flight charts and geological sheets.

12 Pulk sledge and Rifle hire (firearms deterrent against polar bear).

13 Hire of a "distress kit" containing;

* Two EPIRB satellite linked radio beacons,
* Rocket flares,
* Handheld orange smoke flares,
* Mini-flares,
* VHF air band radio;
* Satellite communications;

14 Free unlimited meetings with Paul Walker at their office address, all advice and consultancy.

APPENDIX IV

Equipment List

The lists are for personal gear, gear required by a pair sharing a tent, and gear for the whole team:

Personal

Ski
Ski sticks
Boots
Skins
Waxes
Crampons
Glacier glasses
Goggles/mask
Thermometer
Ice-axe
Climbing harness
Slings & prusiks
Karabiners
Deadman
Ice screws - tubular screw-in (x2)
Avalanche Transceiver
Thermos + Mug
Notebook & pencil
Baby wipes
Matches + lighter
Karrimat
KFS
Toothbrush & paste
Thermal underwear
Fleeces
Anorak
Salopettes
Mittens (+spares)
Inner gloves
Hats (Thermal and sun)
Watch
GPS
Duvet jacket
Duvet socks
Knife
Bivvy bag
Paperback
Helmet
Ear plugs / eye shades
Camera & film
Rucksack
Emergency food
Sleeping bag
Dish
Compass
Whistle

Tent Pair

Tent
Stove
Food
Pulk
GPS
Playing cards / games
Multi-Tool (Leatherman)
Snow shovel
Snow pegs
Fuel
Pans
Sunblock
Toilet Roll
Headtorch
Repair & Sewing kit
Swing-cheek pulley

Whole Team

Ropes 50m, 9mm (x3)
Spare skis and sticks (x2)
Irridium telephone
CD-heliographs
Smoke Flares
Rifle & ammunition
Solar panels
Ice saws (x2)
Short wave receiver
Maps
Medical kit
Dental kit
EPIRB x2
Thunderflashes
Flares
Batteries
Digital camcorder
Marker flags (x20)
Probe
Barometer/Altimeter (Wristwatch)
Ski repair kit (cables, tape, adhesive, nuts, bolts, screws, key-rings, bindings, tip)

Appendix V

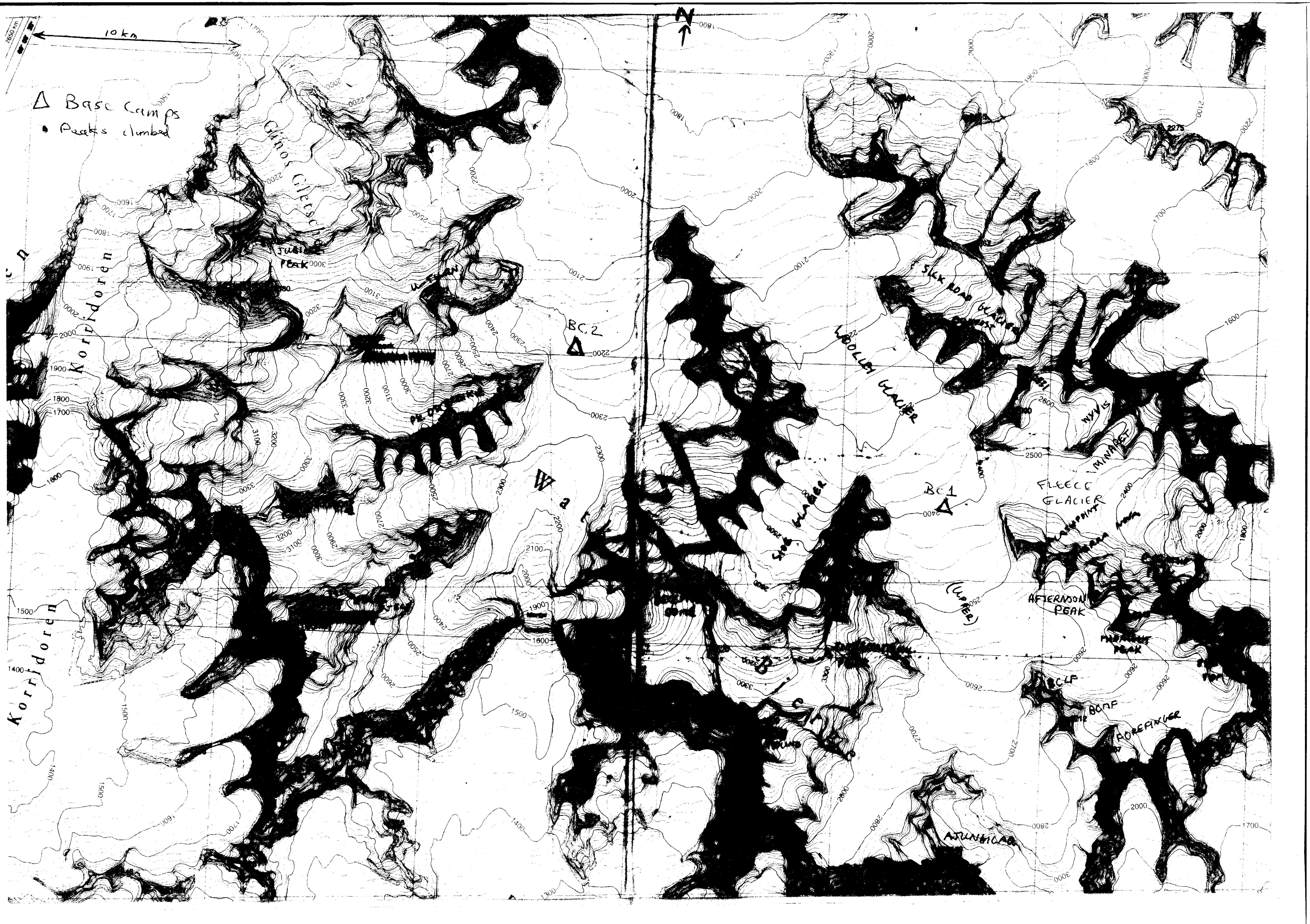
Medical Kit

20m clingfilm
Benylin Sore Throat Lozenges (Anaesthetic and anitbacterial)
16 300mg Tablets of Aspirin (for pain relief)
12 sachets of Tesco Rehydration treatment (to replace lost fluid and salts associated with acute diarrhoea)
1 tube Anusol ointment (Haemorrhoids treatment)
12 Anusol suppositories (for internal relief from haemorrhoids)
12 capsules of Tesco Diarrhoea relief (Loperamide Hydroscholide 2mg)
20 tablets of Dulco-lax for constipation relief (5mg bisacodyl)
18 tablets of Rennie Deflatine (to relief trapped wind, bloatedness)
28 tablets of Nytol herbal (to assist with sleeping)
16 capsules of paracetamol (500mg) (for relief from mild to moderate pain)
1 tube of Cymex cream (to relieve pain from cold sores, dry cracked lips and to control infection of lips)
1 tube Germolene (local anaesthetic ointment to soothe and prevent infection)
1 tube Acriflex (Antiseptic burns cream)
2 tubes Ibuprofen gel (for backache, strains, sprains, rheumatic and muscular pains)
1 tube of heat rub (for muscular aches and pains)
1 bottle of Aftersun lotion
18 compeed plasters of different sizes (for blisters)
1 tube Mycil (Athlete's foot ointment)
3 bottles Lifeventure Drywash (antibacterial handwash to minimise potential for infection)
1 knee support
100 cotton buds
10m Microporous tape
1m washproof dressing strip
10m duct tape
Lifesystems Dental first aid kit (to treat lost fillings, toothache, loose crowns, broken teeth)
1 packet Dextro energy tablets
7.5cm x 4.5m Cohesive bandage
5cm x 4.5m Crepe bandage
Two 7.5cm x 4.5m Crepe bandages
Two Triangular bandages
Three Sterile wound dressings
2.5cm x 5m Zinc oxide self adhesive plaster
5 low adherent dressings
Various sized plasters
Two 5cm x 5cm absorbent dressings
Two 10cm x 10cm absorbent dressings
Two sets of surgeons gloves
Tweezers
Tough cut scissors
Scissors
One vent aid
One space blanket

10 Cleansing tissues
45 Tablets of Piriton allergy (4mg chlopheniramine maleate each)
13 capsules Immodium (2mg)
Thermometer
56 250mg Penicillin Tablets
20 250mg Diamox tablets
Size 3 Oral adjunct
16 Ibuprofen 200mg caplets
21 tablets of 400mg Metronidazole
20 500mg tablets of Ciprofloxacin
1 Vicks VapoRub
1 tube Bonjela

APPENDIX VI
Risk and Mitigation

Hazard	Consequences	Likelihood	Mitigation
Crevasses	Various degrees of trauma and cold injury. With precautions unlikely to be serious.	High	1. Experience of glaciers and navigation techniques 2. Appropriate rescue equipment & techniques 3. Route selection 4. Use of skis
Fall	Various degrees of trauma	Medium	1. Route selection 2. Mountaineering competency 3. Helmets, ice-axes, ropes & belays
Exhaustion	Higher risk of hypothermia, trauma and poor decision making / judgement.	V Low	1. Team and buddy system 2. Use of skis 3. Nutrition 4. Route selection and planning 5. Sleep, rest and relaxation
Rockfall	Various degrees of trauma	Low	1. Route selection 2. Helmets
Injury & Trauma	Consequence of several hazards.	Low	1. First aid training 2. Medical equipment 3. Communications equipment
Storm	Inconvenience. If unprepared can lead to equipment loss, navigation failure and cold injuries.	High	1. Tents 2. Snow holes 3. Training and preparation
Aircraft – late pick up	Inconvenience.	Medium	1. Food reserves 2. Escape routes 3. Satellite communications
Polar bears	Highly dangerous if encountered.	V Low	1. Hygiene 2. Thunderflashes 3. Rifle
Firearm Accident	Major injury or death.	V Low	1. Training 2. Safety checks
Cold injury	Hypothermia or frostbite	Medium	1. Prevention 2. First Aid
Disease	Various degrees of seriousness	V Low	1. Nutrition 2. First aid 3. External communications
Aircraft crash	Very serious. Severe injury + loss of equipment	V Low	1. Experienced pilots 2. Survival equipment
Personality rifts	Can lead to poor judgement & decision making. Loss of team cohesion and focus, hence increased risk of injury.	Medium	1. Relatively short duration 2. Open & clear communications 3. Realistic & understood expectations 4. Adequate nutrition & rest 5. Situational awareness 6. Team ethos, co-operation & entertainment 7. Professional & educated participants 8. Expedition experience 9. Training meets
Fire	Loss of tent and equipment. Personal injury & trauma.	V Low	1.Tidiness and discipline when cooking 2. Separation of tents 3. Burns treatment medicines 4. Spare equipment
Ski or binding failure	Loss of mobility. Exhaustion.	High	1. Spare skis 2. Repair equipment
Avalanche	Death & serious injury. Must be avoided. Highest risk to team.	Low	1. Cold weather conditions for stable snowpack 2. Training in Avalanche risk assessment 3. Transceivers & snow shovels 4. Route selection & mountain competency 5. Use of skis



10 km
Δ Base Camps
• Peaks climbed
N
Gänos Gletscher
Korridoren
Korridoren
Wat
BC.2
BC.1
Silk Road Glacier
Woolley Glacier
Fleece Glacier
Minaret
Afternoon Peak
(Upper)
BCLP
Aorefinger