

FINAL REPORT ON EXPEDITION MIDNIGHT SUN 2003



Midnight Sun 2003

Rignys Bjerg Mountains, East Greenland

Supported by:

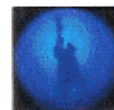


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Introduction

This expedition report has been compiled primarily as a source of information for future expeditions to Greenland in general and to the *Rignysbjerg* Mountains in particular. In spite of the attentions of several expeditions, there is still a wealth of unclimbed peaks in the *Rignysbjerg* area, particularly to the north and the south of where we were climbing. Few countries in the world offer the same opportunities for exploratory climbing with such relatively easy access.

The bulk of the report is a journal of our activities which gives a blow-by-blow account of not only our climbing, but also our experiences in this extraordinary environment. It has therefore deliberately been written in a fairly personalised style. Throughout the journal there are boxes with practical information on everyday topics such as equipment, food and weather.

For those climbers who wish to cut to the chase and avoid the maudlin nostalgia, the annexes should provide the detailed information on peaks climbed, equipment, finance, food, etc, which will be useful in planning a trip.

To our knowledge there have been four previous climbing expeditions to the area. We had the reports of two of these expeditions, which gave us valuable information for our planning. Paul Walker of Tangent expeditions was our main source of advice and we relied on his knowledge of the area to choose our objectives, particularly unclimbed peaks, which, for us, were the main attraction of the area.

Every attempt has been made to give as accurate information as possible. All heights given in the report are based on GPS. There were considerable discrepancies between some of the previous expeditions' heights and our own, as there were between our own different GPS. The heights quoted in the report and the annexes are the measurements from *Midnight Sun 03* and are the highest figure we recorded. The aerial photographs we used were very high resolution and it is possible to pick out an immense amount of detail. In some cases it has been possible to pick out the exact lines we climbed. In other cases it has been a nightmare trying to match individual route descriptions and photographs with a precise point on the aerials; please therefore treat the positions of peaks plotted in the annexes with a degree of caution.

Where we have claimed first ascents this is against the background of uncertainty and the lack of detailed information that are part of the attraction of climbing in Greenland. If we have usurped the mountain which you climbed as part of the *1962 Trans-Greenland Expedition* please accept our apologies, there really was no intent to steal another's glory. A case in point is the *Rignysbjerg*. There is certainly some doubt whether we climbed the *Rignysbjerg*, if indeed there is such a mountain and *Rignysbjerg* is not simply the name of the area.

It is hoped to develop this report into a website, which will offer the benefits of bigger photographs and also short movie clips. However, this report has taken a long time to write and the website will take even longer to design. In the meantime, hopefully the report will prove informative and inspirational. If you have any further questions on our expedition or the area please feel free to contact Martin Bohl at martinbohl@tesco.net at any time.

The Conception

Like many of these ventures, Midnight Sun 03 was conceived in the pub after an evening's rock climbing in October 2001. Bob Appleyard and Martin Bohl had climbed widely in the greater ranges whilst in the Royal Air Force, but those opportunities had been lost to them since their return to the real world and their climbing had been restricted to the UK and the European Alps.

So, born from a desire to once again challenge themselves in the mountains, they began to choose a venue. They were constrained by career and family commitments which meant that three weeks' leave of absence was the maximum time they could spare, which really ruled out a trip to the greater ranges with the associated need to acclimatise. This was no bad thing, as both preferred to visit an area where they could make multiple ascents of peaks, rather than focusing all their efforts onto one mountain.

As they pondered possibilities their thoughts kept returning to one place - Greenland. Greenland had been an ambition for both for some time. They began to research the climbing potential of Greenland and soon came to realise that it exactly matched their requirements due to its:

- Accessibility
- Isolation
- Low altitude and correspondingly quick acclimatisation
- Potential for first ascents and new routes

During their research one name had cropped up again and again - Tangent Expeditions. This firm, based in the Lake District, has many years' experience of leading expeditions to Greenland and seems to have cornered the market on mountaineering tourism to Greenland from the UK.

By using Tangent we could buy into their flights to Greenland and the logistic support for their own expeditions. Thus the charter costs of the flights out to Greenland would be spread over several expeditions and not borne by us alone. To have our own chartered aircraft fly a leg from Greenland and then one out to Greenland with no fare-paying passengers on the return flights did not make financial sense.

Nevertheless, even employing Tangent, Greenland was not a cheap option. Because of the complicated flight logistics the team had to be at least five strong for financial reasons. The margins were such that a drop to only four members would have meant a price increase of almost £500 a head.

The Team

It was very important for us that we should be a group of friends sharing this adventure. The team personnel changed over the eighteen-month gestation period as members came and went for one reason or another. The whole trip hung in the balance in December 2002 when we were down to the five members and about to pay our deposit when Martin slipped a disk in his back.

After expert advice Martin gambled on his fitness, we paid our money, crossed our fingers, the back healed and the rest is history. Although we were desperate for extra members, we never compromised on the ideal of a group of friends and it was always a basic principle that all members should approve additions to the group. Ultimately, the following eight members took part in the expedition:

- Bob Appleyard is a 47-year-old training consultant. He has been climbing since 1970 and has led rock to E1, Scottish ice to IV and Alpine routes to TD and has done a lot of ski mountaineering. He has climbed in Europe, the Atlas Mountains and the Himalaya. Bob was a member of an RAF expedition to Kamet in the Indian Himalaya but had to be evacuated with severe frostbite after bivouacking at 25 000 feet. Since then Bob has worn rock boots several sizes smaller than before.
- Guy Beaumont is a 38-year-old RAF navigator. On rock he climbs to HVS, on ice to IV and in the Alps to D. He climbed on Tilicho (7134 m) close to Annapurna in Nepal with an RAF expedition in 1994. He has completed many ski tours in the European Alps. Guy's experience as a Hercules navigator was to prove invaluable to the team in interpreting the aerial photos we were planning from and in producing a basic GPS tracklog plot of where we went and what we climbed.
- Martin Bohl is a 41-year-old college lecturer who has been climbing for about 16 years. He leads up to E1, Scottish Grade V and Alpine TD. Martin reached the summits of Huayna Potosi (6094 m) and Ancochuma (6430 m) in Bolivia in 1992. He has also climbed in Norway and extensively in the European Alps and completed the coast to coast walk in 1991 - of Iceland! He has ski toured in Scotland and completed the classic winter Haute Route in 1994.



- Rob Coles is a 45-year-old outdoor activities instructor based in the Lake District. He leads rock to E1, ice to Grade III and has climbed extensively in the European Alps, the High Atlas and the Southern Alps of New Zealand. Rob has trekked in Nepal and led commercial trekking groups in Peru. In 1994 he led a ski-mountaineering expedition on the classic Haute Route from Chamonix to Zermatt which completed the Route in extremely lean and demanding conditions.



- Sean Dolan is a 41-year-old IT consultant who is based in Harrogate. He is a very accomplished skier who has much experience of skiing off-piste and has completed numerous ski tours, including the Haute Route and the Silvretta. Sean has climbed various Alpine 4000 m peaks at up to PD and has subsequently skied off them. He has also trekked in the Atlas Mountains. Sean's knowledge of all things skiing was to prove invaluable to other members of the team.



- Sue Dolan is a 41-year-old research scientist carrying out research into cancer. She has climbed in Scotland and has been on numerous ski touring trips, including the Haute route and the Silvretta. Sue is also an England international fell runner, so clearly fitness was going to be a problem for her (she was far too fit for the rest of us!). Because of her background in medical research Sue was an obvious choice as one of the team "doctors", especially if one of us was struck down by cancer.



- Mike Palmer is a 44-year-old management consultant who has been climbing since 1974. He leads on rock to HVS, on ice to Scottish V and on Alpine routes to TD. He has climbed in the greater ranges including Canada, on Kamet (7765 m) and a successful ascent of Ama Dablam (6828 m). Mike is also a keen skier and has taken part in many ski tours as well as family skiing holidays to the Alps. Mike's background as a logistics officer in the air force was put to good use as the team quartermaster.



- Phill Smithson is a 48-year-old chief executive of a housing corporation. Phill has led rock to VS, ice to IV and Alpine to AD. He has climbed in the Nepalese and Indian Himalaya, reaching 25 000 feet on Kamet and he has also climbed in Bolivia and the Russian Caucasus. An exercise physiologist in the Royal Air Force, Phill has conducted research into altitude sicknesses and was the logical choice for the team's second "doctor".



The Expedition Area

In consultation with Paul Walker of Tangent expeditions, we originally identified the Knud Rasmussen Area of Eastern Greenland as an excellent expedition area. The area had not been visited by any expedition before and therefore the peaks were all unclimbed. However, as we struggled to find enough members, the costs of accessing these remote mountains became prohibitive.

We finally agreed to explore the Rignys Bjerg Mountains. As they lay closer to the coast these mountains were much more accessible and therefore cheaper to fly to. Although there had been at least four previous expeditions to the area, there were many unclimbed peaks and unvisited glaciers; we would be the only expedition in that area in 2003 and the nearest "civilization" would be 50 miles away.

The highest mountain in the area and the eponymous Rignys Bjerg remained unclimbed. There was a further unclimbed peak of approximately 2380 m and numerous other virgin summits of approximately 2000 m. The team felt the area offered excellent potential and we agreed the following expedition objectives:

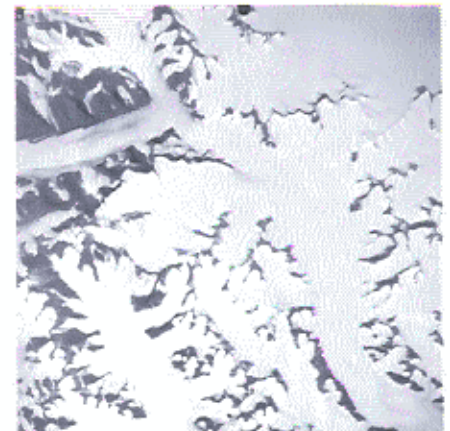
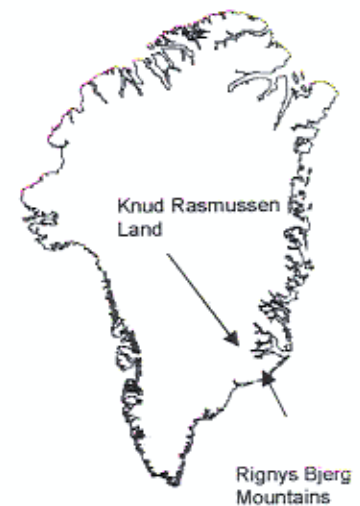
- First ascents of the three highest peaks
- First ascents of other previously unclimbed peaks
- New routes on previously climbed peaks
- Exploration of the area on ski

Working with Paul Walker we put together a plan to fly onto a glacier in the centre of the Rignys Bjerg Mountains, from where we would be able to ski off and set up camps to achieve our objectives.

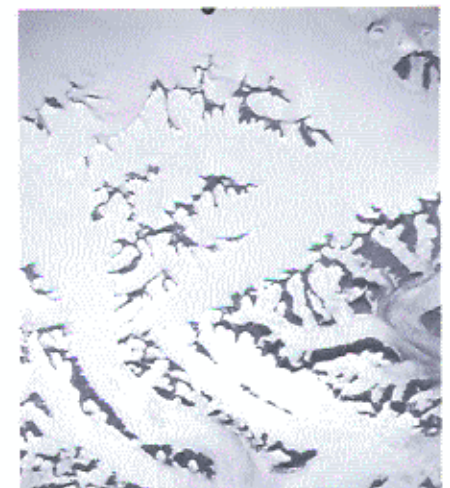
Our initial plan was to have three phases to the expedition:

- Phase 1 would be based to the south of the landing site on a broad glacier between Rignys Bjerg and the other major unclimbed peak (2380 m).
- For Phase 2 we would move back west across the main glacier system and camp in a cirque of mountains which had mostly been climbed, but which might give some steeper ice climbing.
- Phase 3 would take us north to beneath Peak 2680 for an attempt on this, the highest mountain in the whole area.

A list of peaks climbed is at Annex A and more detailed aerial photos of the areas visited are at Annexes B-D.



Rignys Bjerg Mountains, West



Rignys Bjerg Mountains, East

Planning

This was a group of friends with no real hierarchy. However, in order to prepare for the expedition we divided responsibilities as follows:

- Bob Appleyard Finance, food and GPS tracklog
- Guy Beaumont GPS tracklog
- Martin Bohl Liaison with Tangent Expeditions and grant-awarding bodies
- Sue Dolan First-aid
- Mike Palmer Logistics
- Phill Smithson First-aid

Finance

We opened an expedition account early in 2002 and Bob and Martin paid in regularly by standing order. Other members chose not to spread the pain in this way, but paid into the account as payments to Tangent became due. Having an expedition account with funds readily available meant that extraneous costs, such as for aerial photographs, could be paid for immediately. The account was administered by Bob and details are at Annex E.

Grant Awarding Bodies

Although not in the same class as a major Himalayan expedition with peak fees, the expense of the trip was quite considerable if it was to be borne by the participants alone. With insurance and other extra costs, we would be facing a bill of at least £3000 each. We therefore needed some financial support, if possible.

As a small expedition with no ground-breaking objective it was with some trepidation that we approached the various august mountaineering organisations. To our delight and their credit they were not at all elitist and supported us as follows:

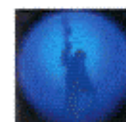
- The British Mountaineering Council £900
- The Gino Watkins Memorial Fund £300
- The Mount Everest Foundation £400
- The RAF Mountaineering Association £400

Our thanks go to these bodies for their generous support.

Artwork

Dr Ian Williams visited the Rignys Bjerg with an expedition in 1998. In addition to climbing many mountains he clearly spent several hours sat on the ice sketching the scenery. His superb sketches and monochrome photographs can be seen on his website at www.ianwilliamsgallery.co.uk. We are grateful to him for his permission to use a sketch for our expedition logo.

BMC



Rignys Bjerg Mountains, East Greenland

Logistic Support

With the exception of food, all logistic support was provided by Tangent Expeditions. This included arrangement of all permits required by the Greenlandic authorities, provision of specialist equipment, freightage of equipment and supplies and our travel arrangements. The service provided by Tangent was excellent; not a single item of equipment went astray.

The specialist equipment was mainly emergency equipment and consisted of one satellite phone, one airband radio, two locator beacons, signal flares and a rifle. The latter was in case of an unlikely encounter with a polar bear. Tangent also provided six pulks, which were absolutely vital for moving around the area.

Mike was responsible for co-ordinating all our equipment needs. He produced a spreadsheet of personal and team kit and as the months leading up to our departure passed this grew bigger and bigger. Mike bought certain items from expedition funds, such as snow stakes and a toilet seat, other items such as avalanche transponders were hired. People borrowed items of personal kit from friends and the whole expedition was indebted to the RAF Mountaineering Association for the loan of four Quasar tents. The spreadsheet of equipment is at Annex F.

Phill and Sue were responsible for medicine and they organised a comprehensive first-aid kit, details of which are at Annex G.

All of the heavier equipment, like camping and climbing gear and skis were freighted out to Iceland two months in advance together with the food. It was waiting for us in a hangar in Isafjordur when we arrived.

The Journey

We flew to Iceland by Iceland Express, a new scheduled service from Stansted to Keflavik, which offers significant savings over the Icelandair service. After one night in Reykjavik we took an internal flight from the City Airport to Isafjordur in the northwest of Iceland, the jumping off point for Greenland. From there it was a short flight across the Denmark Strait.

We flew from the green of Iceland to the ice of Greenland in a Twin Otter of Air Iceland. The hop took approximately ninety minutes, with three of us on the first wave on 6 July and the other five following the following morning after a three-hour delay due to technical problems.



Re-united with equipment in a hangar at Isafjordur Airport



Sue with polar bear deterrent



Our route to Greenland

7th July - The Expedition Starts

The group was re-united at the landing-site at around midday on 7 July. We immediately cached 2 days' food and fuel for our return, packed all our equipment onto the 6 pulks and then set off for Camp 1 some 10.5 km distant. This camp would give us access to many unclimbed peaks, including 2 of our primary objectives, the Rignysbjerg and a 2380 m-high unclimbed peak.

The first half of the pulk was relatively easy and we established a cache of fuel on the main glacier between our proposed sites for Camp 1 and Camp 2. We now turned off the main glacier to head east over a low col onto the glacier system at right angles to the main one and pulking immediately became more difficult. The slope was fairly steep (30°?) and it was very difficult to get sufficient purchase with the skins when pulling a heavy pulk. This was especially difficult for the lighter members of the team.

We finally established Camp 1 on the broad, flat watershed between the two glaciers and surrounded by a panorama of splendid peaks. From here we could see all the way down the glacier to our east with rows of peaks on both sides for several miles. Halfway down on the lefthand side was an obvious pyramid-shaped peak, which, according to the information we had, had been climbed previously. The closest peak to Camp 1 was the only other previous conquest; all the other summits were virgin.

We were using Terra Nova Mountain Quasar tents and one standard Quasar (without valances). We had purchased snow stakes for use with these and they were to prove invaluable. We had also purchased two masonry saws, which were cut to give them a point and were used as snow saws. These proved extremely successful and were far more effective and cheaper than conventional snow saws. Another valuable innovation was space blankets, two of which tied over the top of each tent gave valuable shade during the heat of the day when we were trying to sleep.

Over the next few days we continued to improve Camp 1 by digging snow pits with benches to cook in, snow walls to shelter behind from the incessant wind and a 4-star lavatory complete with the toilet seat we had brought from the UK.

But on this first evening all we wanted to do was have a meal, sit and admire the magnificent views and plot routes. We were all in bed relatively early in anticipation of the initial forays later that "night"



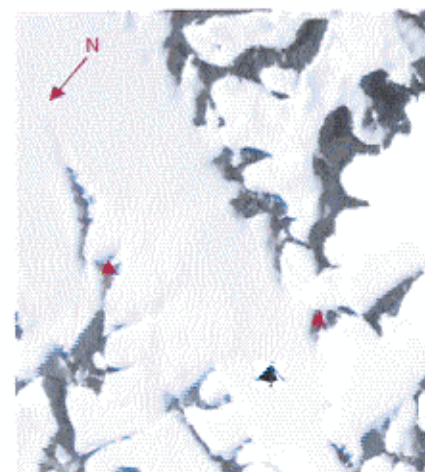
Setting out from the landing-site



A breather during the uphill slog



Camp 1 shortly after arrival



The site of Camp 1 and the two previously climbed summits

8th July - Initial Forays

Sue and Sean were first out of the blocks in the morning, up at six and away by eight to head down the glacier to the east. They had an enjoyable ski and were able to check out routes on the mountains on both sides of the glacier.

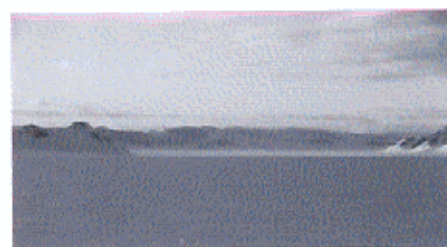
Mike and Martin were away a couple of hours later heading for the prominent peak just southeast of Camp 1. A quick skin across the glacier brought them to the foot of the north ridge, but snow conditions were atrocious as the ridge was catching the sun.

They moved around to the left and found marginally better conditions, which allowed them to continue unroped on easy angled snow to the summit. The summit itself was actually a series of crumbling rock pillars about ten metres high. They roped up and then climbed individually to the top whilst being belayed from below. Although it was not possible to stand on the summit, by precariously stretching up both Mike and Martin were able to touch the very top, as did the GPS, which duly recorded 1911 metres. In the spirit of Hillary and Tenzing, it would be churlish to say who touched the top first.

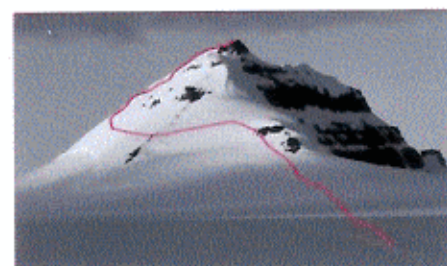
These crumbling basalt pinnacles were to be a feature of many of the summits reached on the expedition. The rock was very friable and had to be treated with extreme caution. On several occasions large handholds just snapped off and Guy cracked one of his boots when a handhold became a souvenir to take home. Bands of this rock gave many of the mountains their distinctive striated appearance, reminiscent of the Canadian Rockies, and effectively put some mountains off limits. We only took to the rock were this was absolutely necessary, usually to reach the very top of a summit pinnacle.

The ascent had taken just over one hour from the camp and the return took just 40 minutes. An easy day, but we had our first summit in the bag and had learned some useful lessons:

- Conditions by late morning were too warm and soft for climbing.
- The rock was to be avoided at all costs.
- The Motorola radios we had brought with us had been tested and proved effective. Mike and Martin, Camp 1 and Sue and Sean were in contact with each other at all times.
- Most of the peaks on either side of the glacier looked feasible. There were only a couple of peaks which presented continuous bands of rock to the valley and so would be more difficult. Possibly there would be routes on the far side of these, but we had more than enough to be going at.



Looking east down the glacier



Peak 1	Name not known
Height:	1911 metres (GPS)
First ascent:	unknown
Second ascent:	08.07.03 Martin Bohi and Mike Palmer
Route:	East Face (F+)



Mike risks life and limb to touch the summit



Mike descending from the summit

9th July - A Mass Ascent

All eight of us left camp at 0200 for a mass ascent of the unclimbed peaks to the northeast. There were two peaks with a cirque between and an interconnecting ridge. We skinned up to the col below the lefthand peak, but after that the ridge was steeper and icier, so it was off with the skis and on with the crampons.

An easy climb on the right side of the face then brought us to the top in about one hour from the camp. All eight of us were able to stand together on the summit, watched over by two stone trolls straight out of *The Hobbit*. These amazing stone pinnacles were actually the highest points, but it would have been foolhardy to try to surmount them. We had to content ourselves with scrambling into the gap between them. The height at the base of the pillars was 1966 metres.

We then descended and traversed around the ridge, some on skis, to the foot of the second peak. Starting up the face, we found that snow conditions were poor - there was a thin crust, which we broke through up to our knees. Martin, Phill and Mike persevered and were rewarded with better conditions once an avalanche runnel had been reached, the soft snow having been stripped away to reveal hard neve.

The final ten metres were tricky as the face got steeper and softer again. The three summiteers did not even attempt the 20-metre high rock finger this time, contenting themselves with a stroll along the summit ridge to its end in a huge cornice.

The route was reversed down to Bob, who had stayed behind to provide safety cover, and then a fantastic ski back to camp was enjoyed.

Meanwhile, Sean Sue, Rob and Guy had skied off the col and were heading around the back of the peak. Conditions on the other side were icy and steep, giving good if exposed climbing conditions. Near the top they hit soft snow and then summited to find the tracks the others had left behind thirty minutes earlier.

This second group downclimbed to their skis and continued their traverse around the back of the mountain on excellent snow. They crossed the more easterly col and skied and skated back to camp by 0900.

After some food everybody went to bed until the afternoon heat drove them back out to re-hydrate, eat and to plan the next night's activities.



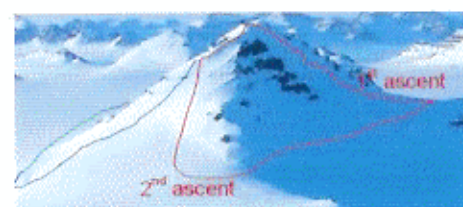
Peak 2 Unnamed
 Height: 1966 metres (GPS)
 First ascent: 09.07.03 M.Palmer
 S. and S. Dolan,
 M. Bohl, P. Smithson,
 G. Beaumont, R. Coles
 and R. Appleyard
 Route: Southwest Face (F+)



Phill and Bob on the summit ridge



The team on the summit with the trolls



Peak 3 Unnamed
 Height: 2083 metres (GPS)
 First ascent: 09.07.03 M.Palmer,
 M. Bohl, P. Smithson,
 Route: West Face (PD)
 2nd Ascent: 09.07.03
 S. and S. Dolan, R. Coles
 and G. Beaumont
 Route: Northeast Face

10th July - Rignysbjerg and Other Peaks

Mike and Martin departed at midnight intent on climbing the peak dominating the camp to the south, behind which was the Rignys Bjerg itself. Mike and Martin intended to climb it by its northeast face, as the team had so far found conditions on these faces to be the best as they caught the least sun. Meanwhile, the others had their eyes on one of the peaks further down the glacier.

The Rignys Bjerg, which has given its name to the whole area, was unclimbed but had been named because it was visible from the sea, forty miles to the east. It was one of the expedition's main objectives.

As they skied closer to their first objective the views opened up and they could study the Rignysbjerg more closely. There was a connecting ridge between the two peaks which looked as if it would provide an interesting way of achieving both summits. They therefore traversed beyond the first peak so that they could leave the skis in a more accessible position after descending from the Rignys Bjerg.

They then traversed back on foot beneath the face, looking for a place to cross the bergschrund. This was problematic as it was wide, but they found one place where it was nearly bridged. Mike set off with Martin belaying him, but he was faced with a vertical wall about two metres high of sugary snow and the face itself had a layer of unconsolidated snow.

They tried further along where some snow had sloughed off the face exposing firmer snow which at least gave good axe placements above Mike's head. Although Mike succeeded in getting established on the face using the knee plant, belly grovel technique, he felt the snow pack higher up the face was not stable and they could trigger an avalanche. Having watched Mike floundering in the soft snow, Martin was happy to defer to his assessment. So much for the northeast face theory.

They cut their losses and returned towards their skis, finally finding a reasonable line which went up the left side of the face to join the ridge which connected the two mountains. This provided an easy route to the top, a low plug of rock which, for once, they were able to stand on in safety.

From its 1987 m summit they could look along the length of the ridge to the Rignys Bjerg to the south. They were also able to speak to the other group over the radio, who were a couple of kilometres to the east, nearing the summit of their objective.



The day's first objective beyond camp



Mike searches for a way onto the face



The view northwest from the summit towards Peak 2680



<i>Peak4</i>	<i>Unnamed</i>
<i>Height:</i>	<i>1987 metres (GPS)</i>
<i>First ascent:</i>	<i>10.07.03 Bohl and Palmer</i>
<i>Route:</i>	<i>East Face (F+)</i>

The other group had left camp at the same time and skated to the southeast, heading for the next peak down the glacier from the expedition's first peak. On the way over they had to skin up an amazing ice wave in the glacier and then onto the steep snow slope beneath their mountain. Rob, Sean and Sue continued to skin up the slope to reach a rock shelf while Bob, Guy and Phill opted for crampons from the bottom.

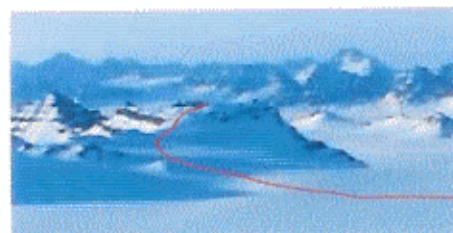
There was a line of rock on the crest of the ridge but this was the usual crumbling choss, so they stayed on the snow. The climbing was reasonably steep and Sue and Sean roped up for the last 30 metres. They reached the summit crest at 0330, but again were unable to get onto the true rock summit which was slightly higher. They recorded 1804 metres. As it was now bitterly cold, especially exposed to the wind, they descended on poor snow. The return ski to camp was a bit of a slog across the glacier.

Meanwhile, to the west, Martin and Mike were negotiating the ridge to the Rignysbjerg. They had to thread a route through rock gendarmes, trying to stay on the snow, which was nicely consolidated here and bearing their weight. At one point their progress was blocked by a rock gully and they had to divert quite a long way down to get beyond it, but 30 minutes later they were on top of the Rignysbjerg, the first of the expedition's major objectives.

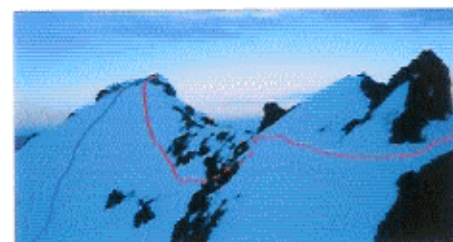
Or were they? The summit was disappointingly low. The estimated height was 2390 metres, but the GPS was only showing 1970 metres - more than 400 metres below what had been expected. Mike and Martin immediately thought they must be on the wrong summit, but the two peaks they had just climbed stood in lofty isolation. The peak Paul Walker had indicated as Rignysbjerg lay further south on the aerial, but there was nothing higher in that direction - the peaks mirrored the glacier in descending gently southwards.

The two then descended by a long downwards traverse back towards their skis. After a little excitement crossing the same bergschrund that had caused problems on the ascent and which continued the full width of the two mountains, they were back at their skis four hours after leaving the camp.

As it had only been a short day, Martin was eager to explore the glacier and persuaded Mike to make a ski tour to the south. After a wonderful two kilometre ski down the glacier a long and painful slog back up the connecting glacier followed, which left little time to appreciate the sights, which included a volcanic extrusion like a 2-metre-high wall, which came down one wall of the valley, dived under the ice and climbed the other side. When they finally staggered into camp four hours later, Martin regretted his suggestion.



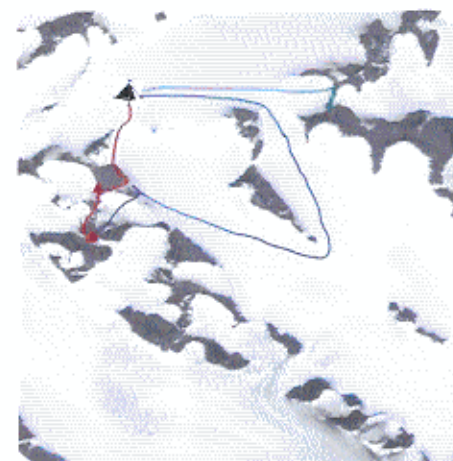
Peak 5 Unnamed
 Height: 1804 metres (GPS)
 First ascent: 10.07.03 P. Smithson, S. and S. Dolan, R. Coles R. Appleyard and G. Beaumont
 Route: N Face and E Ridge



Peak 6 Rignysbjerg
 Height: 1970 metres (GPS)
 First ascent: 10.07.03 M. Bohl and M. Palmer
 Route: N Ridge (AD)



Martin on the summit of Rignysbjerg - or is he?



Mike and Martin's route is shown in red (out and up) and blue (down and back). The other group's route is in green (the same there and back).

11th July - A Face and a Gully

The whole group set out together at 0200 on skis with skins. We were refining our climbing arrangements, having found that earlier departures tended to mean that the climbs were still unconsolidated, even if there had been a freeze. Three o'clock seemed to be the optimum time to start climbing.

The plan was for the party to split into two groups of four, with one group climbing and the other group skiing. Our initial objective was the col to the west of Peak 3 which we had climbed on 9th July. Once there we had to make a tricky descending traverse down the back of Peak 3. This proved too difficult for Phill who only had thin cross country skis and as the snow was too soft to walk down he turned back.

The rest of us continued and crossed the bergschrund at the base of the slope, some with more style than others. In the end we did not split up and the seven of us made the easy climb to the summit of the mountain behind peak 3. As Sue was first up she chose to name it Lornasbjerg, in honour of her mother.

Re-united on the broad snowy summit the seven of us drank in the views and took the inevitable photos. Only Phill's absence detracted from the moment.

Some of the group had brought their skis up and intended to ski off and around the back of Peak 3 and so complete a circuit around the mountain. They enjoyed perfect conditions as they skied and skated back to camp for 0550.

Meanwhile, Martin and Mike had other plans.....



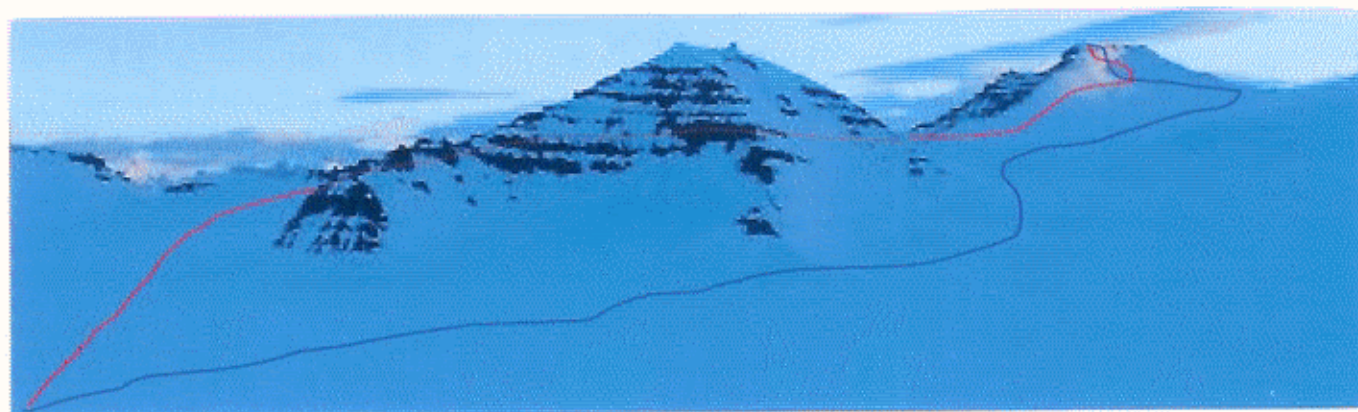
The group below Lornasbjerg



Sue enjoys the summit



Sean approaches the summit



Peak 7 *Lornasbjerg and the route out and up (red) and back (blue) beneath Peak 3 climbed on 9th July.*
Height: *2218 metres (GPS)*
First ascent: *11.07.03 M. Palmer, S. and S. Dolan, R. Coles, M. Bohi, R. Appleyard and G. Beaumont*
Route: *Southwest Face (F+)*

.... After watching the others ski off the mountain and head off, Martin and Mike skied across the glacier to the base of the mountain whose top was just visible from Camp 1 over the shoulder of Peak 3. They left their skis at the col and traversed below the west face of the mountain, aiming for the broad gully which was the prominent feature of this face and looked to offer an obvious line of ascent.

They made rapid progress up the gully, able to move quickly unroped on good neve in the prominent avalanche runnels. They were bounded on both sides by cliffs which were a bit more solid than most of the rock in the area. Nevertheless, the occasional stone came bounding down the gully and encouraged them to press on before the sun hit the face.

Martin and Mike were fairly tired by now after five days of puking and climbing and it was with some relief that they finally reached the top of the gully and could relax on some rocks out of harm's way. Their drinking tubes had also thawed and they could re-hydrate at last.

Above lay a pitch of steep snow were the gully opened out and steepened up as it joined the ridge to the fore summit. We roped up and belayed each other for this short pitch of 30 metres which provided the most interesting climbing of the whole route. The snow was again softer and there was a large cornice to be negotiated, all of which probably added up to Scottish III.

Once on the ridge it was a pleasant stroll to the summit, but care had to be taken to stay back from the cornice which at times assumed gravity-defying proportions. A group of rock gendarmes guarded the approach to the summit, but these were wrong-footed by a deft detour onto the snow lower down the ridge.

The summit consisted of a 20-metre high lump of unstable basalt. However, a line of snow on the far side took them to within 5 metres of the summit, and by standing on a boulder they were just able to touch the top. Whilst trying to gain a little extra height Martin succeeded only in removing a handhold as a souvenir.

The descent was a traverse of the face below the ridge and was turned into a flog by soft snow, which they broke through to their knees every third or fourth step. At one point Martin fell and slid about 10 metres before managing to brake the slide before his weight came onto the rope.

After reaching the skis they had a wonderful ski out past crevasses, before a flog back up the main glacier brought them back to camp nine hours after leaving.



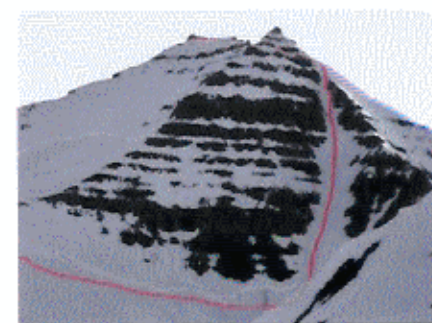
Deborahsbjerg



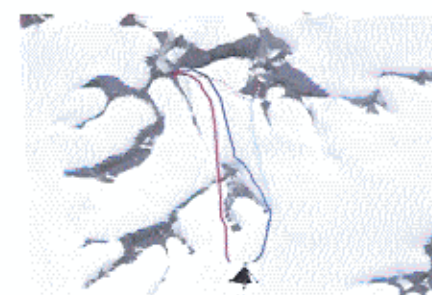
Mike approaching the summit



Mike descending the face



Peak 8
Height: Deborahsbjerg
 2358 metres (GPS)
First ascent: 11.07.03 Martin Bohl
 and Mike Palmer
Route: West Face Gully (PD-)



*The team's meanderings
 (Martin and Mike dotted)*

12th July - Stormbound

We woke up just after midnight to flapping tents. The wind had picked up considerably and by looking east we could see cloud and snow heading up the glacier towards us. All plans for climbing were abandoned and the next forty-five minutes were spent battening down the hatches.

All the loose gear was stowed in the pulks where it would not blow away or be lost if buried in snow. We quickly cut extra ice blocks and built walls on the windward side of the tents, which were also checked to make sure the guys were tight and secure. The stoves and a few ration packs were moved from the snow pits into the tent porches.

The storm duly arrived and we were immediately enveloped in a world of white. The whiteout was complete and it was difficult to make out one tent from the next. All we could do was hunker down for however long and wait for the storm to blow through.

In the time honoured tradition of stormbound mountaineers we passed the time chatting, dozing, brewing up and reading. Everybody had brought a book along but, unfortunately, after a week we were out of sync and there could be an infuriating wait for a book to become available. Guy's *Miss Smilla's Feeling for Snow* by Peter Høeg was particularly appropriate and much sought after. Rob's autobiography of George Allagia and Guy's *Gridlock* also proved popular whereas Martin could not give *Sense and Sensibility* away. Only a bunch of philistines could prefer Ben Elton to Jane Austen.

The inevitable forays outside proved predictably unpleasant. Most of us preferred not to use pee bottles, but two minutes of snow-blasting was almost enough to convert even Sue. Although very windy, conditions were not that extreme. The temperature hovered around zero and inside the tents life was tolerable and there was certainly no danger of cold injuries. Even if we had been caught out by the storm in the middle of an ascent, we all felt we would have been able to find our way back to camp using the GPS rather than having to dig a snow hole and sit it out.

The storm blew through after eighteen hours. We had lost a day, but in fact the storm had been quite timely. With such a wealth of unclimbed peaks around there was a tendency to keep going whilst the weather was good. Although our days had been short and the weather conditions very benign, we were still fairly tired and a day's enforced rest was beneficial. We were all raring to get going again, there were still lots of unclimbed peaks to bag. Nobody was more enthusiastic than Mike, whose birthday it was.



The storm approaches



The storm gets closer



What happened to the view?



Tentbound



Phill ventures out: "I may be some time!"

13th July - A Surprise Party

The weather looked reasonable, but with thickening high cloud and a stiff breeze it was important to get an early start to ensure that Mike could reach a virgin summit on his 45th birthday. Mike had selected a prominent peak about 5km from Camp 1 on the left hand side. This peak was characterised like many in the area with steep snow covered faces topped by a rocky nipple like summit.

This mountain was in fact the first of the peaks beyond the watershed of the glacier camp1 to be sighted - the rocky summit initially appearing as a rock on the surface of the snow only to grow into a mountain as the convex slope of the glacier was reached.

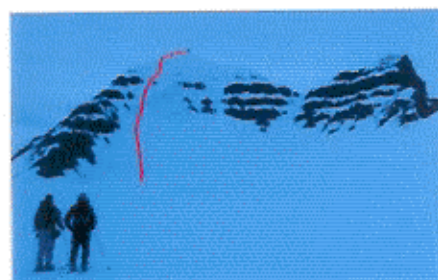
The base of the peak was reached after 2 hours skinning from the camp by the team of Mike, Bob and Martin. The centre of the prominent NE face was hard glacial ice, grey with rock dust and overlaid above and to the sides by snow. A route was chosen starting from the left side of the face trending right above the grey ice to join the summit ridge. The team roped up on top of some old avalanche debris at the base of the face and put on windsuits as the wind had risen in intensity increasing the chill factor on what was already one of our colder days.

Before setting off a successful radio call was made to the rest of the team who were in line of sight on the other side of the glacier, making an ascent of another slightly lower peak.

The team moved together on generally good snow and made rapid progress to the ridge. The slightly corniced and very airy ridge led directly to the mitre-shaped rocky summit (only Sauron's eye was missing). The route was about Scottish grade II and presented no significant difficulties.

Several small flurries of snow accompanied the descent along the East Ridge to a col on generally good snow and some scree. At the col the team decided to attempt the subsidiary peak east of the col via a snowy ledge system. However, the snow conditions on the ledge deteriorated rapidly and the attempt was abandoned and the route to the col reversed with some difficulty. The weather though threatening to worsen throughout the climb came to little and later improved with sunshine.

The peak was named Remlapsbjerg by Mike, Remlap being an anagram of his surname! On the return journey to camp Mike made a detour to the base of the gully climbed by him and Martin the previous day to photograph the 'Plants' he had seen and provide evidence for the doubters on the team!



Peak 9 Remlapsbjerg
Height: 1834 m
First ascent: 13.07.03 Appleyard,
Bohl and Palmer
Route: West Face (PD-)



An elated Mike on the summit block - reminiscent of a bishop's mitre



Bob and Mike leave the summit



Bob leads Mike up to the terrace

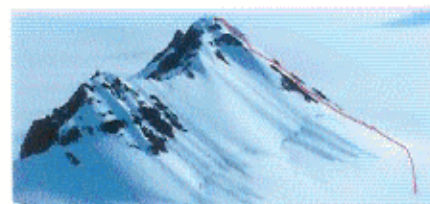
The other five had gone even further down the glacier, about seven kilometres, and had climbed the last peak on the left. They had climbed up solid avalanche debris and then firm, steep snow to the summit ridge. The 1784-metre summit gave them excellent views to the north, an area they intended to explore in the next phase of the expedition.

On the way back there was a good breeze behind them which Phill and Guy took advantage of with Phill's kite. Even hooked up together they managed to achieve 21 kph, which certainly speeded up their return.

They were back before Mike, which gave everybody time to prepare a birthday party. Sue had brought a chocolate cake from the UK which had surprisingly survived the trip and Bob made jelly. When Mike got back we celebrated in style.

This was to be our last evening together. There had always been different aspirations within the group and from the outset we had planned on the basis that the group might split. Phill, Sue, Sean and Guy were eager to do more exploring and ski touring and so they planned to do a tour of the peaks to the north and west back around to the landing site. They would have to pulk many kilometres and set up several intermediate camps en route.

Bob, Mike, Martin and Rob would stick to the original plan and establish a second camp to the west. They still nurtured a forlorn hope of finding some steeper ice, a Greenlandic *Point Five* or *Smith's Route*. So after the celebrations were over they started the slightly sobering task of dividing the kit.



Peak 10 Unnamed
 Height: 1784 metres (GPS)
 First ascent: 13.07.03
 Beaumont, Coles, Dolan
 S and S and Smithson
 Route: South Ridge



Phill on the summit ridge



Mike tucks into his birthday cake with liquid sustenance close to hand

The Weather

We had been led to expect high pressure to dominate over Greenland in July with stable weather patterns bringing predominantly clear skies and cold nighttime temperatures. However, in two weeks we would probably experience at least one storm, which could last several days.

The weather gods had clearly read the script, for the weather was very much as predicted. For approximately half of our days we enjoyed blue skies and for the rest there were varying degrees of cloud cover. We had one storm, which lasted a day and which was the only time we had any precipitation.

Temperatures ranged from +20 to -10°C, although life could seem much colder in the constant katabatic winds blowing off the ice cap. The wind chill factor should not be underestimated, but waterproof gear can be left at home. We were slightly disappointed at the high temperatures in July. On quite a few occasions it did not freeze during the "night" and climbing conditions were generally poor. A lot of the snow on the faces especially was unconsolidated and this, combined with the poor rock, limited the climbing opportunities. We did not see any water ice and did not place a single ice screw on the expedition.



The weather 50% of the time



The storm approaches Camp 1

14th July - A Solo Venture and Downhill Fun

At 1400 the pulking party set off on their mammoth circuit of the peaks to the north of Camp 1. Sue, Sean, Guy and Phill took with them more than a week's supplies - if all went to plan the team would not be re-united until 21 Jul back at the landing site.

Rob and Bob made a short foray to climb Peak 1 whilst Martin and Mike planned to climb a couple of peaks down the glacier which Martin had his eyes on. However, Mike was feeling ill with chest pains, so they postponed their departure by an hour. When Bob and Rob got back Mike still had chest pains, so aspirin was prescribed and Mike stayed in bed. Probably the party food of the previous day was responsible, but it was better to be safe than sorry.

As a result Martin set off on a personal odyssey to solo the two peaks lower down the glacier on the south (right) side. These two presented easy snow slopes to the glacier with small rocky crests on their summits. There was a long connecting ridge between the two, barred by rock bands.

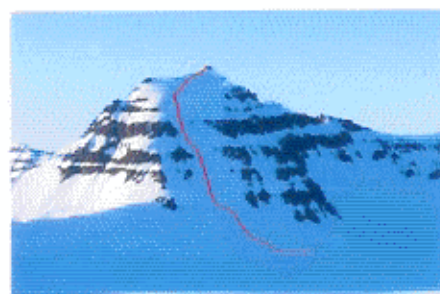
The left peak (from the glacier) was climbed by its northern face in approximately one hour. Snow conditions were reasonable, soft at the bottom giving climbing of Scottish I/II but with good neve in the middle section. The face steepened and softened up for the last twenty metres, which, together with the increased exposure, probably upped the grade to II/III. The summit was a small rock plinth of the usual chossy basalt, but which could be surmounted quite easily and safely and measured 1955 m on the GPS. It was named Adamsbjerg after Martin's son.

The route of ascent was down-climbed as the interconnecting ridge did not look feasible (certainly not solo) due to crumbling rock gendarmes along its length. A short ski traverse brought the second peak within striking distance.

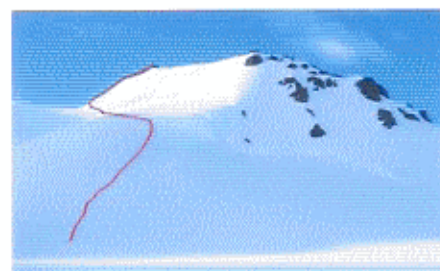
Climbed via its northwest face in knee-deep snow, the second peak provided a very easy if tiring ascent (Scottish I). A large but very obvious crevasse on the shoulder of the mountain had to be avoided, but this was the only slight difficulty and Martin regretted not taking his skis up to enliven and speed up the descent from the col. The rocky summit furnished a comfortable stone throne from which to enjoy the views. The GPS recorded the summit as 1867 m. The peak was named Erinsbjerg after Martin's daughter.



The intrepid pulkers leave Camp 1



Peak 11 Adamsbjerg
Height: 1955 metres (GPS)
First ascent: 14.07.03 Martin Bohl
Route: North Face (PD+)



Peak 12 Erinsbjerg
Height: 1867 metres (GPS)
First ascent: 14.07.03 Martin Bohl
Route: Northwest Face (F+)

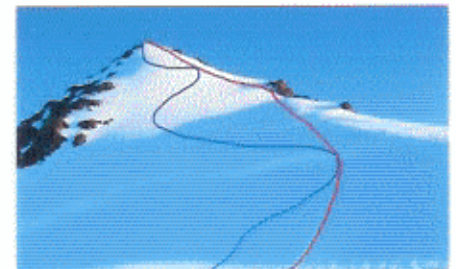


On the summit of Erinsbjerg



Adamsbjerg (1955 m) and the connecting ridge to the lower Erinsbjerg (1867 metres)

Meanwhile, on the other side of the glacier, the pulking party had stopped to climb a prominent pyramid-shaped peak. This peak had been climbed before, although we had no details of the first ascent. After an easy skin and climb up the south face (I), they enjoyed an exhilarating ski from the 1930-metre summit back to their pulks on the glacier. Their whoops of delight could be heard by Martin on the other side of the glacier.



They then pushed on down to the confluence with the glacier coming in from the north and turned the corner. The two groups were out of sight and out of radio contact. They continued for another six hours to finally establish a camp well to the east of Camp 1 beneath an impressive mountain which presented a complex series of buttresses and gullies - an obvious objective for the coming days. The rest of the evening was spent eating and drinking.

<i>Peak 13</i>	<i>Name not known</i>
<i>Height:</i>	<i>1930 metres (GPS)</i>
<i>First ascent:</i>	<i>Unknown</i>
<i>2nd ascent:</i>	<i>14.07.03 Beaumont, Dolan S and S and Smithson</i>
<i>3^d ascent</i>	<i>15.07.03 Appleyard, Bohl, Coles and Palmer</i>
<i>Route:</i>	<i>Northwest Face (F)</i>



The pulking party's Camp 2

15th July - Another Virgin and More Downhill Fun

The Pulking Party

Having pulked for eight hours the previous day Guy, Phill, Sean and Sue enjoyed a lie-in until 0200 in the morning. It had frozen overnight and conditions were excellent as they skinned across the glacier towards the long mountain which dominated their camp.

This was a fairly complex peak with many rocky buttresses descending to the glacier with snow gullies between. A snow ramp leading across the face from left to right appeared to offer the line of least resistance and they aimed for this.

Their assessment proved correct as they were able to skin about three quarters of the way up the mountain, only having to remove the skis once they got onto the ridge. From there they cramponed up hard neve to the snow-capped summit. At 1900 metres *Bernisbjerg*, named after Guy's wife, offered splendid views into the vast glacier system to the east.

They walked down from the top and once re-united with the skis they skied a hard forty-degree slope. As the day drew on it got very hot and sunny and it became a flog back to camp. They then recovered from the previous 24 hours' activities.

The Western Group

Seven kilometres to the south Bob, Martin, Mike and Rob had climbed the same pyramid-shaped peak the pulkers had climbed yesterday. Bob, Rob and Mike had carried their skis to the top, whilst Martin erred on the side of caution and left his skis a hundred metres or so below the top. From the top they could see a tiny speck in the sea of white, which could only be the pulkers' camp. However, they could not raise the other group on the radio.

They enjoyed a fantastic ski off the peak, the only problem being a narrow crevasse at one third height, which Mike only just turned at the last moment. It was sixty seconds of sheer exhilaration and the runout carried them some way back up the glacier. Their last skin back up the glacier was hard work but was achieved in sixty-five minutes.

The rest of the day was spent washing and preparing for the move of camp to the cirque of mountains to the west. That evening morale was boosted by another special meal; ham with a tin of cook-in sauce. This was washed down with the last of the Laphroaig and Macallan. The only whisky left now was Mike's West Highland blended - it was definitely time to be moving on.



Peak 14 *Bernisbjerg*
Height: 1900 metres (GPS)
First ascent: 15.07.03 Beaumont,
Dolan S and S and
Smithson
Route: West Face (F+)



50 miles from civilisation - but when a woman's got to shop...



Bob, Mike and Martin on the summit before the fantastic downhill run



Martin after the downhill run

16th July - On the Move

The Pulking Party

Both groups were on the move again. After only two "nights" in their camp 2, the pulking party packed up their tents at one in the morning and then headed off in opposite directions. Sean and Sue headed left across the glacier dragging their pulks behind them whilst Guy and Phill set off for the peak north of their camp.

Leaving the pulks in the middle of the glacier, Sean and Sue skinned up a ramp beneath a small hanging glacier to a col between two peaks. Abandoning the skis they climbed the righthand (western) peak on good snow. The rocky summit measured 1937 metres on the GPS and they decided to call it *S 'n' S Sup*.

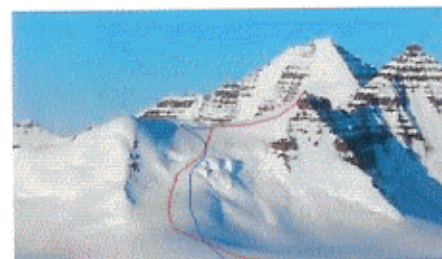
They attempted the lower lefthand summit but a tricky bergschrund with poor snow blocked the way. Sue was able to negotiate this, but she only weighs seven and a half stone. Sean had a much harder time of it, repeatedly sinking up to his thighs, and they were forced into a re-assessment. The slope did not look safe, so they sensibly returned to the skis and enjoyed a fantastic run off on piste-like snow. Once shackled to the pulks again they headed up the glacier.

Meanwhile, Guy and Phill had climbed the mountain on the opposite side of the glacier. Their chosen route took them up an increasingly steep gully onto the well-defined southwest ridge and via this to the 1830-metre summit. On the way up they discovered a tiny saxifrage and a clump of grass in a crevice in the rock.

After returning to their pulks they continued up the glacier and met up with Sean and Sue. They pitched their tents in the middle of the glacier and set about digging cooking pits and generally making themselves comfortable - they intended staying a little longer here.

The Western Group

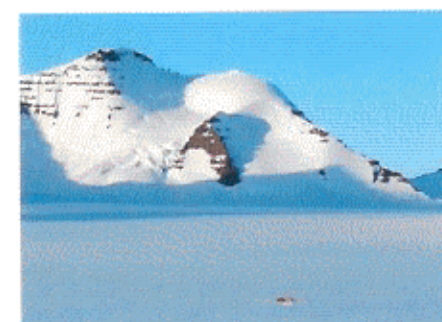
Bob, Martin, Mike and Rob were sticking to the original plan of heading back across the main glacier and into the cirque of mountains to the west. This whole area was clearly visible from Camp 1 and appeared to offer lots of snowy peaks and rocky summits. During the pre-expedition planning, they had thought this area might offer some steep ice climbing, but ten days in the *Rignysbjerg* had disabused them of this idea. Ski ascents would be the order of the day.



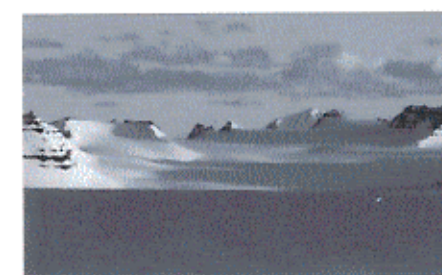
Peak 15 *S 'n' S Sup*
Height: 1937 metres (GPS)
First ascent: 16.07.03
Route: Sean and Sue Dolan
Southwest Face (F+)



Peak 16 Unnamed
Height: 1830 metres (GPS)
First ascent: 16.07.03
Route: Beaumont and Smithson
Southwest Ridge



The pulkers' Camp 3



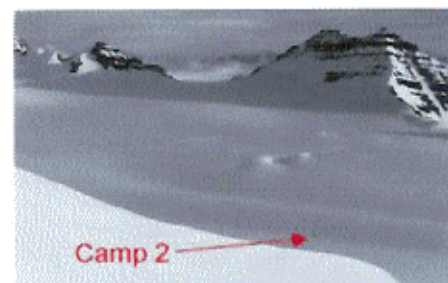
The area of Camp 2 seen from Camp 1

On the way across they had to negotiate the steep slope they had struggled to get up on the way in. Rob went first with a pulk with Mike attached to the back acting as brakeman. They seemed to have no problem, so Bob went next, solo. In the middle of one turn Bob's pulk tipped over. Having backed up and removed his skis Bob managed to right the pulk, which then set off on its own down the slope. A rather red-faced Bob put his skis back on and caught up with his pulk about half a kilometre out onto the glacier. An incident which amused them greatly, but which could have been disastrous if the pulk had found a crevasse.



The Weird Sisters (all three were climbed by a previous expedition)

After retrieving everything from the cache they had left on the glacier, they picked their way through a heavily crevassed area on the other side of the glacier and up the slope on the other side. This took them into some interesting scenery. To the left was a continuous ridge with three prominent rocky summits, which they dubbed *The Weird Sisters*. The slope on this side was much gentler but far more relentless and they finally called a halt some distance below the col.



Camp 2 (from the Nob)

Camp Life

We spent a lot of time in camp and tried to make life as comfortable as possible for ourselves. We used two-man Mountain tents throughout the expedition and cooked in tent pairs. We had anticipated the bright midday sunshine during our sleeping period and we fastened two space blankets between the inner and outer of each tent for shade. Even so, the tents were hot during the day and eye shades were needed to sleep.

At each camp we dug a communal cooking pit and built a wall of snow blocks on the windward side. This allowed us to relax and to socialise in relative comfort. To this end, the cardboard packing cases our food was freighted in proved invaluable and probably prevented piles.

Another invaluable piece of equipment brought from the UK was a plastic toilet seat. We eventually found that the best type of toilet was a hole at floor level with a pit cut for the feet. With the high-level toilet there was a slight but disconcerting risk of slowly sinking into the toilet pit - future expeditions should consider a white seat to reduce melting in.

At each site we made a still to melt snow. This was effective due to the strong day time sun and produced large amounts of water, which in turn saved fuel and meant we could have occasional "showers". Best results were achieved if the plastic sheeting we used was insulated from the snow and a pulk was often used for this purpose.

We whiled away the spare hours in various ways. Reading, chatting and listening to music were popular, but also juggling, kite-flying and playing the banjo were indulged in. Phill had brought a prototype portable banjo with him and entertained (got on the nerves of) the others with his manic strumming. The kite was also Phill's, and he practised quite a lot around camp achieving speeds of more than 20 kph. Bob had brought a laptop computer which could be powered off a solar panel and he downloaded the tracklogs from the GPS regularly. Watching our tentacles spread out to the surrounding mountains became a popular pastime.



Phill whiles away the time in camp



Mike brewing up in a cooking pit



Rob playing with his balls

17th July - New Vistas, New Peaks

The Western Group

Afflicted by insomnia, Bob and Rob were away by midnight, intent on exploring the glacial bowl to the north and west of the camp. The weather was warm, there had been no freeze overnight and conditions were not ideal for skiing or climbing. The sky to the southeast was plum red as the sun clawed its way from behind the peaks to the north.

Having skirted some potential crevasse depressions they reached a col on the rim of the glacial bowl and enjoyed a spectacular view down a steep and heavily crevassed face scarred by avalanche debris. They proceeded anti-clockwise around the glacier and watched a glorious sunrise from the next col around.

As Bob and Rob admired the dawn, Martin and Mike were on their way to the head of the glacier and a twin-headed peak in the centre of a col. They were able to skin virtually to the summit of the righthand peak, although the slope was steep and really required harscheisen, which they were too lazy to stop and put on.

The summit was rocky and safe and they were then able to traverse easily to the second summit, stopping only to feed a dog on the way. Both summits had been climbed by the 98 expedition and named as one peak *Sisters*. Martin and Mike recorded them as 1873 and 1867 metres.

Bob and Rob were now aiming for a fine, sharp-edged peak, which formed the western rim of the glacier. Shaped like a shark's fin, it presented a simple broad flank of snow on its eastern side and a more complex, rocky face on the west, overlooking the next glacial system. The steep eastern flank became too steep for skinning, so Rob traversed out onto the south ridge and Bob onto the north ridge. Bob was first to reach the narrow, airy 1907-metre summit, but both were beaten by the 98 expedition who had named it *Pinnacle View*.

Elsewhere on the glacier, Martin and Mike were investigating some of the amazing aiguillettes, which possibly inspired the name *Pinnacle View*. There were hundreds of these spires in the area and with very little imagination it was possible to see all manner of people and creatures in their convoluted forms. But these were no Napes Needles - it is a fairly safe bet that no rock gymnast will ever climb them, not unless he has a death wish. They were formed from the same crumbly rock as the rest of the mountains



The area west of the camp



Peaks 17 & 18 *Sisters*
Height: 1867 m and 1873 m
First ascent: 29.06.98
Second ascent: 17.07.03 Bohl and Palmer
Route: North Face (F) and East Ridge (F)



Martin feeding the dog



The Madonna on the left with two cloaked monks on the right and a menagerie of creatures between

Martin and Mike continued to skin up a fine ridge to another prominent feature, a massive pillar of rock which variously looked like a hand or two lovers embracing, depending on where the beholder stood. It had been called *the Nob* by the 98 expedition, although there were in fact two summits, of which the pillar was higher.

Meanwhile Rob and Bob had precariously donned skis on the top of *Pinnacle View* where one slip would have been fatal and then skied off the steep face which gave them a tremendous start to the long traverse to *the Nob*. They reached the lower summit while Mike and Martin were at the pillar of rock and were able to compare notes over the radio. They were also able to contact Phill some twenty kilometres to the north, an amazing advert for the Motorola radios.

About half an hour apart, both parties enjoyed a superb run off the summit back to camp. Recovering in the cooking pit Mike dropped his bombshell....

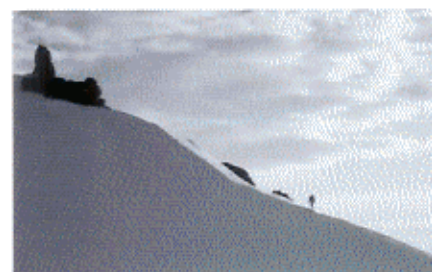
.... From today's tops they had enjoyed fantastic views of the mountains to the north, views dominated by Peak 2680. At an estimated 2680 metres this was the highest peak in the Rignys Bjerg mountains and it looked stunning. Earlier in Phase 1 we had collectively decided that it was too far away to be viable, but Mike had been inspired and it was back on the agenda. To stand a reasonable chance of summiting we would have to leave tonight, just after we had arrived.

Rob and Bob were not keen, happy to stay and explore this cirque. So if it was to be climbed it would mean splitting the group again - would we be tempting fate? Peak 2680 had been a prime objective of the expedition from the outset, but we had also agreed to operate in fours as a minimum. Decisions, decisions - and the decision fell to Martin, who retired to his tent to wrestle with his conscience.

The Pulking Party

Far to the north, the pulking party's day had started with a two o'clock departure for the col to their north, which they dubbed *The Northwest Passage*. They found the softer going in the warm conditions hard work and Phill split off to head for the peak northwest of them.

Guy, Sue and Sean skied over the *Northwest Passage* and contoured around the back of the mountain through some very soft snow and a lot of avalanche debris. They finally found some harder snow and crossed a further glacier to try to try the next peak. Once again the snow was very soft and they eventually abandoned the attempt 50 metres below the summit as they were wading up to their waists in the snow.



Approaching The Nob South (Peak 20)



Traversing to The Nob North (Peak 21)



Virgin mountains to the north



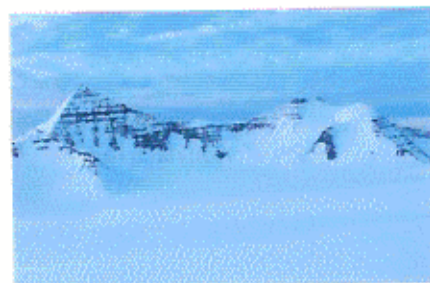
Peak 2680 (named Angisoorsuaq later) from one of the Sisters



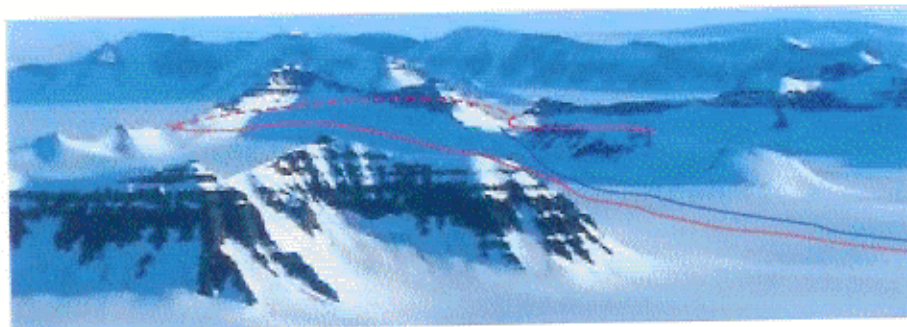
Guy leads the way to the summit

They skinned along beneath the bergschrund to the next col and after a bite to eat they continued their circumnavigation of the mountain. They spoke to Phill on the radio and agreed to meet on the far side of the cirque. They continued on soft snow until Phill was high above on the col and they skinned up to join him. They all cramponed up to a hard-won summit, part of a long finger of rock sticking out into the glacier.

The four of them shared the 1813-metre summit before skiing off the col and back to their camp. It had been a long and tiring day in some very difficult conditions.



The view of Deborahsbjerg from the summit, climbed six days earlier by Mike and Martin from the far side



Peak 22	Unnamed
Height:	1813 m
First ascent:	17.07.03
	Beaumont, Dolan S and S and Smithson
Route:	Northeast Ridge (F)

Food

When not climbing, meal times were the highlight of the day. Food was not just about calorie intake, it was a social event. Although we usually cooked in tent pairs, we would all cook at roughly the same time and sit down to dinner together. Due to the incessant wind, we tended to chill out (pun intended) in our tents, so meal times provided an opportunity to get together to chat and plan routes.

Bob, the calorie guru, put a lot of thought and effort into putting together meals that were appetising, given the constraints of weight, cooking time (and therefore fuel consumption) and cost. The proof of the pudding was in the eating and most items got devoured. In fact, we had to watch out for the Arctic Vulture which circled our camps (aka Sean) and pounced on any leftovers or unguarded titbits.

Breakfast was invariably a hasty affair in the cold of "night" and consisted of "Oats So Simple", so simple that even Rob could cook them, with hot chocolate and perhaps a snack bar. We then snacked our way through the day - most of us just ate chocolate, nut bars or dried fruit on the hill. Packets of Cheddars and nuts with chocolate chips were like gold dust; by contrast, Friesli bars could not be given away and were clearly breeding, inside the pulk runners being one of their favourite nesting sites.

The standard fare for dinner was noodles, rice or pasta with tinned fish, relieved every fourth day by a special - a big tin of ham with a cook-in sauce. If normal dinners were the highlight of the day, specials were red letter days. Meals were often accompanied by a tot of whisky, although Mike Palmer's West Highland blended (strained through the socks of those completing the long distance walk?) proved less popular than the Bowmore, Laphroaig and Macallan and lasted considerably longer.

All the food was pre-packed in one day ration bags, so we just grabbed a bag each every day. It also made life easier when the group split. The food was freighted out to Iceland in advance with our heavy kit.



Food for a day



Sue, Phill, Guy and Sean enjoy jelly at Mike's birthday party

18th July - Two Summits, a Difficult Route and Pulking

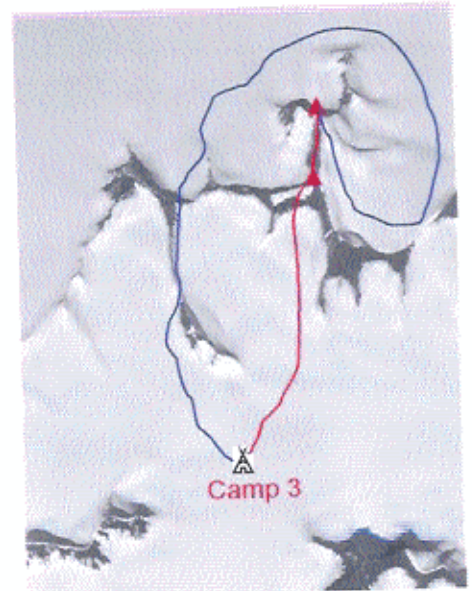
The Pulking Party

Up north Guy, Phill, Sean and Sue had spent their second night at Camp 3. Although it had not truly frozen overnight conditions were better than yesterday and Phill, Sean and Sue set off for a peak to the northeast. Guy was feeling under the weather and decided to have a rest day.

They put crampons on beneath its south face then crossed the bergschrund via convenient avalanche debris. Staying on the snow they negotiated three rock bands, but they found snow very soft and Phill, the heaviest, elected to turn back in the face of some serious wading. Sean and Sue pushed on, carrying their skis, and were rewarded with firm snow above the rock bands. The snowy summit measured 1986 metres.

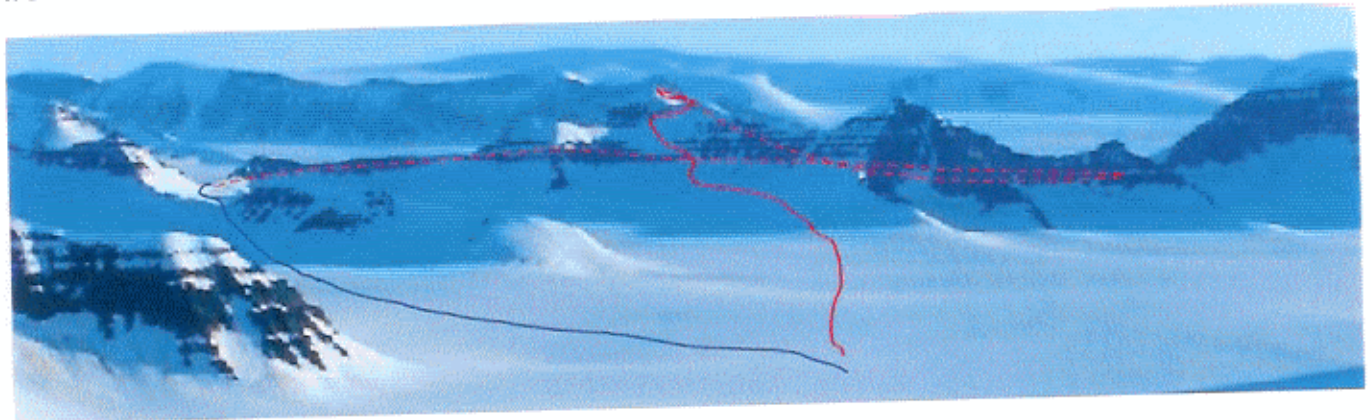
From the summit they descended the northeast ridge of the mountain and then climbed the southwest ridge of the next peak. This was a lovely snowy peak with lots of seracs and crevasses to the right of the approach ridge and cornices on the left. They christened it *Candle Lighters' Mountain*.

The ski descent was tricky. They had to avoid depressions in the snow and at the col above their glacier they were faced with a two-metre drop off a snow wall on to steep, rough ground. Instead they decided to take the long way home skied around the whole mountain group to the north and then west to cross the two cols they had skied yesterday.



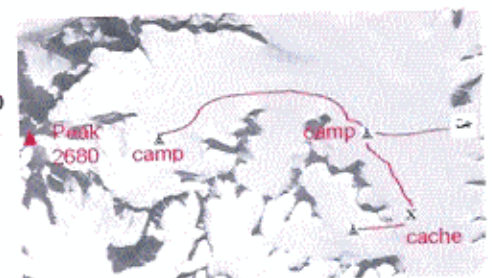
Peak 23 Unnamed
Height: 1986 metres (GPS)
First ascent: 18.07.03 Sue and
 Sean Dolan
Route: West Ridge

Peak 24 Candle Lighter's
 Mountain
Height: 2034 metres (GPS)
First ascent: 18.07.03 Sue and
 Sean Dolan
Route: Southwest Ridge



The Western Group

Martin and Mike had agreed to go for the big one and were to become the pulking party (Mark 2). They spent eleven of the next fifteen hours pulking around to Peak 2680, calling in at the glacier cache to pick up some kit and then detouring to the landing site to deposit it and then having an all too brief three hour sleep. They eventually set up a camp beneath a beautiful mountain they dubbed "the shining mountain".



Martin and Mike's meanderings

After Martin and Mike's departure at seven, Bob and Rob got up at midnight to re-visit *The Nob*. They cut across the toe of the ridge they had already skied down and then climbed the steep face beneath the pinnacle, which they called "the Fist".

They front-pointed up the face but above them was probably the most serious climbing of the whole trip. A barrier of loose rock barred the way to the summit. The difficulty of the climb was compounded by the skis which they had to carry. It was difficult to balance with these strapped to their sacks, as they would swing forward and catch the rocks above their heads. One line had to be abandoned before Rob led up through a groove and onto a slabby area that led to the summit ridge and the Fist. They graded the route AD, although the difficulties were short-lived.

The two sat in silence beneath the Fist, admiring the views in all directions from this fantastic vantage point. They then followed Martin and Mike's ski tracks down to the *Nob North* before again enjoying the fantastic ski run back to camp.



The Nob South, also known as "The Fist" or "The Lovers' Embrace"



Looking northeast from the Nob

Equipment

Our equipment was very similar to what would be required for a trip to the Alps. We had two-man Mountain Quasar tents, although Bob and Rob had to cope with a standard Quasar. They did not find the lack of a snow valance a major problem, but the tents were not really tested in a severe storm. Snow stakes were essential; we used at least ten per tent. Another useful tip is to sandwich two space blankets between inner and outer to reduce the temperature during the day.

Good insulation from the snow was vital; we used various combinations of roll mats, Thermarests and down-filled lilos. The choice of sleeping bag was more difficult. Martin had a one-season bag and a fleece liner. In the heat of the day the bag alone was ideal, but when returning cold and tired from a climb it could take quite some time to warm up. The others used higher rated bags and relied on the zip to control the temperature.

We cooked on MSR stoves with Coleman fuel. They performed well and needed little maintenance in the dust-free environment. For each stove we had a twelve-inch plywood base plate to stop them melting in.

Clothing was based on the layering and windproofing principle. Rain is not an issue, so the Gore-Tex was left at home. Windstopper and Pertex were found to cope with the windy conditions admirably.

Seven of us had Alpine ski-mountaineering skis and boots, which were ideal for ski ascents and descents. Phill had Nordic cross country skis, which were fine for touring and getting to the foot of climbs, but restricted where he could get to and he missed out on the marvellous downhill runs.

We took two lead racks with ice screws and a small number of rocks - we hardly used them. The rock was too brittle and we never found any ice. Almost all our climbing was on snow, so deadmen and snow stakes were more effective.

A more comprehensive equipment list is at Annex F.



The tents were warm during the day



Martin and Mike gear up



Our MSR stoves performed well

19th July - The Big One

The Western Splinter Group

In spite of all their puking Martin and Mike did not sleep very well during the day and were up just after midnight. It was a beautifully cold and clear night, which boded well. After 200 metres of poling and skating they picked up speed and then enjoyed a wonderful downhill run past the shining mountain. They had reconnoitred the approach route the previous day and skied down into a bowl. As Peak 2680 came into view it looked stunning in the alpenglow.

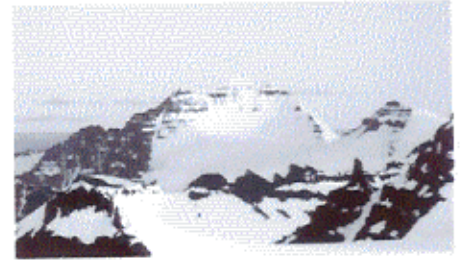
The downside of the wonderful downhill run was that they now had to skin up a long way from the bowl to the col east of the mountain, but at least they had warmed up in a fun way. An hour of skinning saw them on the col. Now it was decision time. They had originally intended to climb the south face but were concerned about snow conditions. Would the southeast ridge attempted by the 98 expedition be a better proposition? Both looked to be excellent lines.

They decided to attempt the face and if conditions were poor they would try to traverse back right onto the ridge. A long leftwards traverse above a large bergschrund and then a rising traverse brought them to a faint gully directly beneath the higher righthand summit.

They frontpointed or sidestepped up superb neve, moving together on the rope but with no need for protection. The only difficulty again came at the top of the face where the last 10 metres were steep and soft and the exposure was now considerable. They came out on the ridge just below the summit and moved up to touch the summit at the same time.

This was a very special moment, they were both figuratively and literally on top of this part of the world. The summit was very small, the apex of three ridges with room enough only for one at a time. This snow summit was clearly higher than the other rock summit and was the highest point they could see. They could look down on all the mountains around.

It was another fantastic clear day and they enjoyed superb views in all directions. To the east they could look over the shining mountain and down the glacier, the scene of so much sweat and toil with the pulk - it all seemed worthwhile now. Beyond that was the sea, studded with icebergs. To the southeast were the mountains around Camp 2 and beyond that the area of Camp 1 was visible, with Rignysbjerg and Deborahsbjerg particularly prominent. No other candidate for Rignysbjerg was visible. To the west the white expanse of the ice cap stretched out to infinity.



The distant objective - Peak 2680 from one of The Sisters



Mike at the top of the face



An ecstatic Martin tops out



Martin on the summit with his children



Looking east to the sea

And to the north lay the Dark Side. Directly in front across a glacier lay an area of tortured rock and ice. The contrast to the rest of the area was stark. Instead of broad glaciers with snow peaks, the area opposite consisted of sheer pinnacles of rock separated by narrow rubble-strewn glaciers. It was like Mordor on steroids. Just accessing these basalt spires would be a major undertaking - climbing them looked virtually impossible. There were improbably steep and thin gullies of ice that stretched to three quarters height of some of these mouldering monoliths, but to reach the summit would mean climbing the same crumbling rock we had experienced; the danger of rock fall would be ever-present.

Drinking in these views Martin and Mike began to fully appreciate the climbing potential of Greenland. They were surrounded by hundreds of unclimbed peaks, and the Rignysbjerg Mountains are just one small part of this vast coastal range.

After quarter of an hour on the summit they were quite chilled, so it was time to descend. They decided not to visit the lower southern summit but to descend the ridge that Mark Bailey and Sean Franks had attempted four years earlier. That earlier attempt was abandoned in the face of poor snow conditions and intricate route-finding through chossy rock bands.

Martin and Mike found their way blocked several times by rocks and spent as much time on the face as the ridge. A true ascent of the ridge would not have been feasible. Finally they regained the col, where Martin promptly put his foot through into a crevasse. He extracted himself and moved down the slope when Mike went through. They had been standing five metres apart over the same crevasse line - the bergschrund continued right across the col!

After this little scare they retrieved the skis and put them on with some relief. They enjoyed skiing off the col but not skinning back up the long slope to the camp. Nevertheless, it was a beautiful morning and they basked in the sun and a sense of achievement.

Martin and Mike had given some thought to what to call Peak 2680. They decided to call it "The Big One" in Greenlandic, the local Inuit dialect. As their knowledge of Greenlandic was unsurprisingly zero, it was not until after their return to the UK that they were able to establish the name through Paul Walker's contacts: Angisoorsuaq. A suitably unusual name for a wonderful mountain, now they just have to learn how to pronounce it.



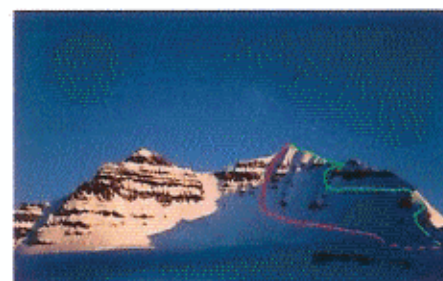
The Mountains of Mordor - a totally unexplored area of shattered rock awaiting a party with a death wish



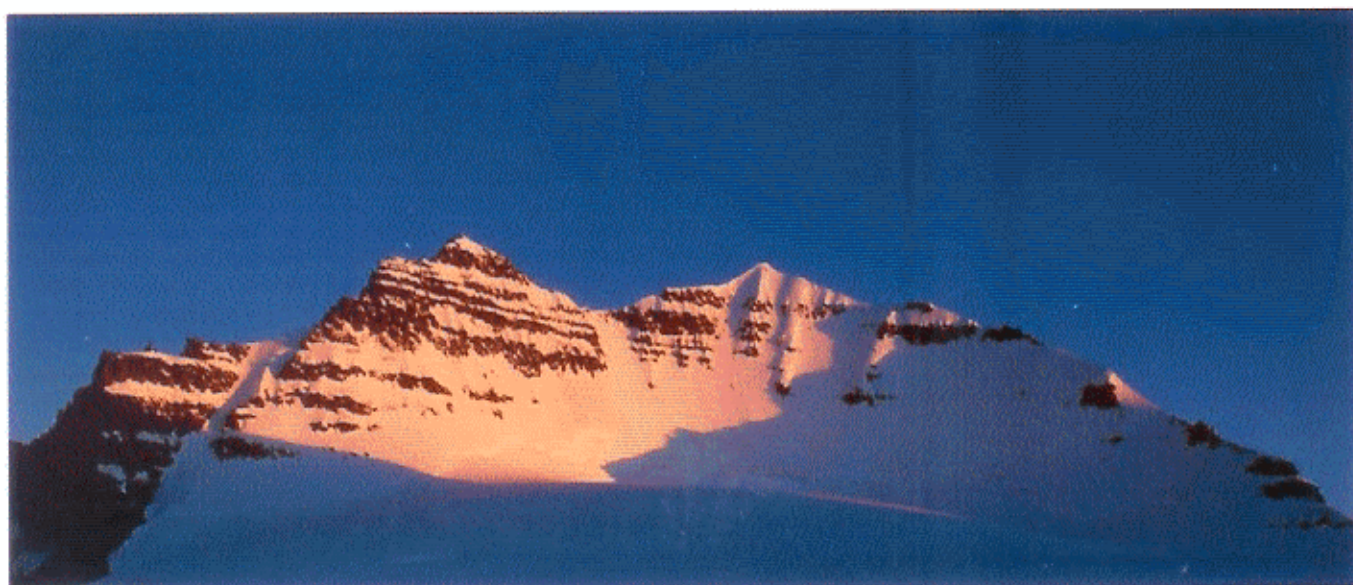
Hundreds of unclimbed peaks to the northwest



Mike makes his way back to camp



<i>Peak 25</i>	<i>Angisoorsuaq</i>
<i>Height:</i>	<i>2797 metres (GPS)</i>
<i>First ascent:</i>	<i>Martin Bohl and Mike Palmer</i>
<i>Route:</i>	<i>South Face (AD)</i>
	<i>(Red shows the line of ascent and green the descent)</i>



Angisoorsuaq in the alpenglow

The Pulking Party

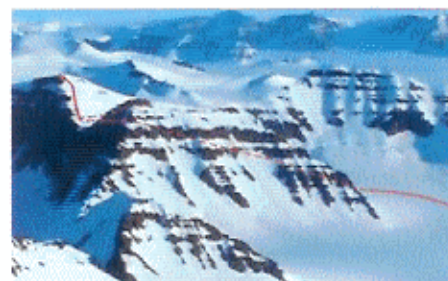
Far to the east Guy, Phill, Sean and Sue set off from Camp 3 heading southwest and then west together. They then split with Sean and Sue aiming for two peaks to the west with a col between while Guy and Phill took a more southerly line towards Lornasbjerg, Peak 7 which most of the expedition had climbed from the other side on 11th July.

Sean and Sue skinned up to reach the col between the two peaks and then cramponed up to the east peak first. They had to negotiate a tricky little rock step before finishing the climb on steep snow. They then retrieved their skis from the col and climbed the second peak with them. They were then able to ski off the very top of the mountain on excellent snow but with the 40°/45° slope making the skiing interesting.

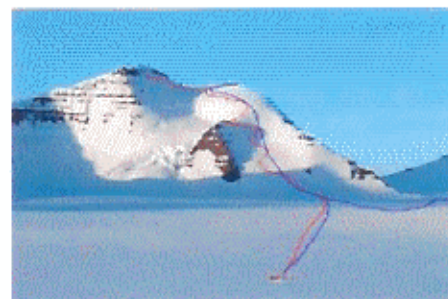
On the other side of the glacier Guy and Sean climbed a subsidiary peak of Lornasbjerg. Phill tried to solo the main peak, having failed to get to it the previous week, but he was defeated by poor rock and the cornice. After an exhilarating ski off Phill soloed a peak to the west (Peak 29).

The Western Group

Bob and Rob packed up Camp 2 and returned to the landing site to provide some backup should Martin and Mike get into difficulties. It was hoped that by moving a short distance to the north of the landing site they would be able to establish line of sight with Peak 2680 and therefore radio contact. In the evening Bob unsuccessfully tried to make contact.



Peaks 26 & 27 Unnamed
 Height: 1968 m and 2010 m
 First ascent: Sean and Sue Dolan
 2nd ascent: (2010 m peak) on 21.07.03 Appleyard and Coles
 Route: North Ridge (F) and South Ridge (F)



Peak 28 Unnamed
 Height: 1905 metres
 First ascent: Beaumont and Smithson
 Route: Northeast Face

(29)

20th July - The Shining Mountain

Martin and Mike were up at 2300 and after a quick brew they took the tent down and packed the pulk up. They then left it at the camp site and skied to the foot of the south ridge of the mountain towering over the camp. They were able to skin 200 metres up the ridge and after donning crampons they enjoyed an easy plod up to the summit, travelling light without rucksacks, harness or ropes. They were following in the metaphorical steps of the first ascensionists, Ruth and Simon Love, who had climbed the ridge five years earlier. The second ascent was made an hour later by the other two members of the expedition, Mark Bailey and Sean Franks.

Although the route was easy and the mountain had been climbed before, both agreed that it provided a fitting finale to the expedition and that it was the most beautiful mountain of the trip. As they had approached two days earlier from the east it had risen from the glacier, an isosceles triangle of luminescent white. The 98 expedition had called it *Pyramid*, but Martin and Mike dubbed it the *Shining Mountain*. The mountain quite simply shone in the midnight sun.

Martin and Mike sat astride the narrow summit, formed by the apex of three ridges. Their GPS showed 2497 metres, twenty-eight metres lower than the 2525 metres recorded by the 98 expedition. From their vantage point they were able to take in views of the surrounding mountains and to reflect on the previous two weeks' activities.

To the north Angisoorsuaq filled the view, their tracks up the south face still visible. To the east the cirque of mountains surrounding their camp 2 were visible and beyond some of the mountains of Phase 1 rose from the surrounding sea of ice. And to the south the glacier stretched all the way back to the landing site and that was that path they had to take.

Martin and Mike collected the pulk and set off back down the glacier. Their return was a lot faster than the uphill slog two days earlier and was enlivened by riding the wild pulk. This involved Martin in the harness steering the accelerating pulk whilst Mike skied up from behind and sat astride it. At one point they whooped and hollered their way for five kilometres and recorded over 50 kph on the GPS.

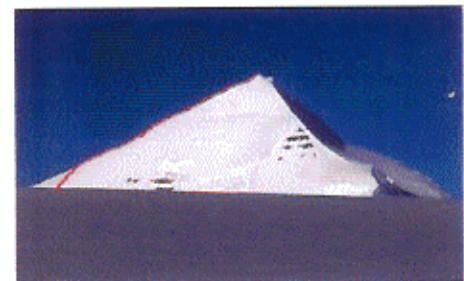
In spite of this exhilaration, the return journey was tinged with sadness. They were sorry to leave behind two such beautiful mountains and they knew that *Pyramid* probably represented their swansong. Yet they were both eager to get back to the landing site and ultimately to civilisation. They were looking forward to seeing the others, for all over the Rignysbjerg area parties were homeward bound.



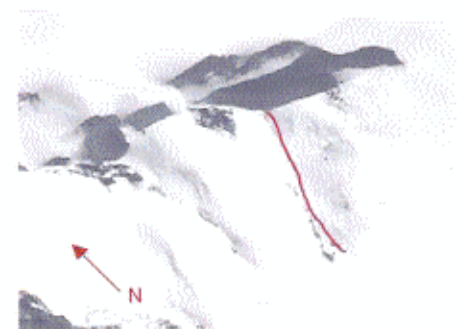
Martin heads for the summit of Pyramid



Mike on the summit of Pyramid



Peak 30	Pyramid
Height:	2497 metres (GPS)
1 st /2 nd ascents:	14.06.98
3 rd ascent	20.07.03 Bohl and Palmer
Route:	South Ridge (F)



Detail of Pyramid from the aerial photograph, which clearly shows the three interconnecting ridges and Martin and Mike's route up the South Ridge.

Miles to the south the pulking party had packed up their third camp and set off at 0330 for the snowy peak lying directly west. Leaving the loaded pulks at the base of the mountain they had climbed it by its north ridge. The mountain had been climbed previously, but we had no details of that ascent. Phill, Guy, Sean and Sue had then reversed the route back to the pulks. A long steady uphill pulk to a col followed by a fun-filled downhill run and a traverse around a buttress brought them back to the landing site.

Three Bears had been climbed on 20th June 1998 by the four members of the 98 expedition. Bob and Rob had set out that morning with the main aim of establishing line of sight up the glacier to Peak 2680 to facilitate radio contact with Martin and Mike. Once they had been contacted, Rob and Bob turned their attention to *Three Bears*.

Three Bears was the high point on a ridge jutting down into the glacier. An easy ascent up steepening snow brought them to a col northeast of the summit. A fine, broad ridge brought them to the pinnacle-crowned summit.

The 98 expedition had placed *Three Bears* at N 69 10.50 W 26 39.00 and recorded 2050 metres. Bob and Rob logged N 69 10.54 W 26 38.96 and 1993 metres. The limitations of the GPS when measuring height were again demonstrated, yet this was clearly the same mountain. Bob and Rob's name of *Myfeetarekillingme-bjerg* will have to remain unofficial.

Martin and Mike arrived shattered back at the landing site to find a solitary tent with no occupants. As they were brewing up Bob and Rob appeared over the bounding ridge to the north and soon came skiing into camp. All four put up Martin and Mike's tent before retiring to the warmth of their sleeping bags to await the arrival of the sun and the pulking party.

The intrepid pulkers arrived back soon afterwards having completed their mammoth tour. It was good to be re-united and to catch up on each others' exploits. It became obvious that the expedition had made a large number of first ascents and a number of repeat ascents. All the members of the expedition were happy with their efforts and had achieved their personal aims.

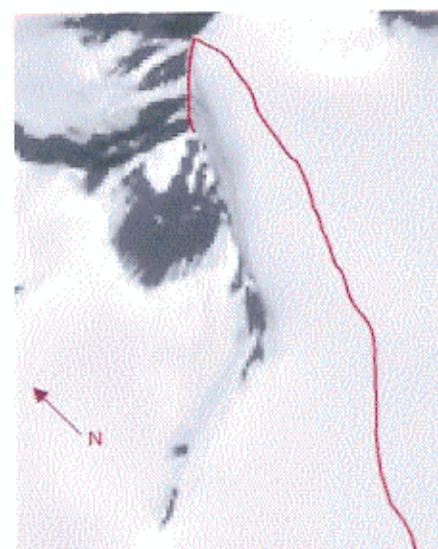
Although thoughts were beginning to turn to home, some plans were made for the morrow, our final full day on the ice.



Peak 31 Name not known
Height: 1935 metres (GPS)
First ascent: Unknown
2nd ascent (?) 20.07.03 Beaumont,
Dolan S and S and
Smithson
Route: North Ridge (F)



Phill on the summit with Peak 8
Deborahsbjerg behind



Peak 32: *The Three Bears*
Height: 1993 metres (GPS)
1st ascent 20.06.98
2nd ascent 20.07.03 Appleyard
and Coles
Route: East Face and
Northeast Ridge (F)

21st July - The End is Nigh

On our last full day some of us suffered a motivational crisis. With the big one in the bag and feeling exhausted neither Martin nor Mike could summon the enthusiasm for a day out in the bitterly cold wind. Phill and Guy joined them for a day of sloth.

Bob and Rob opted to have one final day on the hill, battling the fretful wind beneath a heavy overcast. They commented on how like Scotland it had become.



Some of the peaks at the back of the landing site

They retraced their steps of the previous day before turning east to climb the group of peaks to the north of the landing site. It was difficult to make out features in the flat light and it came as a surprise to find themselves on the lip of a huge, natural half-pipe created by wind-blown snow. This was negotiated by a descending traverse of the first wall and then by difficult skinning up the other side.

The first peak of the day was climbed easily on steep snow, but the cold wind made life difficult. However, spirits were lifted by the fine, corniced ridge that led to a chain of summits which formed the backdrop to the landing site. Bob and Rob measured the two main tops at 2047 metres (Peak 33) and 2010 metres (Peak 27 climbed by Sean and Sue two days earlier).

The only safe descent took them away from camp down onto a glacial system running to the north east. The word safe is relative! They had to descend a very steep ridge above a bergshroud, before stopping at rocks to put on skis.

The snow was perfect and the weather was improving. The run down provided a fitting end to the trip. One area of snow in particular was absolutely flat for hundreds of feet in all directions. They turned their backs on this huge playground and headed south west to skin slightly uphill to the col that linked the two glacier systems and led back to base camp and the prospect of a day's packing!

On their way back to base Bob and Rob met Sue and Sean on the col to the north of the camp. They were on their way out having had a lie-in until 4 am. Sue and Sean continued over the col also noting how difficult the flat light made skiing. They skinned up a snow dome which gave them a view of the camp and landing site. This previously-climbed mountain was the expedition's 34th and last peak.



<i>Peak 34</i>	<i>Name not known</i>
<i>Height:</i>	<i>1880 metres (GPS)</i>
<i>First ascent:</i>	<i>Not known</i>
	<i>Sean and Sue Dola</i>
<i>Route:</i>	<i>East Face (F)</i>

22nd July - An Anxious Wait

With several groups' flights linked together again today turned into a roller-coaster day of weather watching. We were in constant touch with Isafjordur Airport and one minute our spirits rose as we knew the aircraft was en route to collect the first group from the region and then sank again at 1230 as the mountains disappeared and it began to snow - what if another storm was breaking?

By 1530 conditions had improved marginally and based on our report on the actual met the aircraft launched again. Then conditions began to deteriorate again and we began to calculate the cost of an aborted flight (how much is aviation fuel this week?). At 1915 we suddenly saw the Twin Otter banking round to begin its approach. Guy was on the radio speaking airspeak to the pilot whilst Bob disappeared in a cloud of orange as he set off a smoke flare to indicate wind speed and direction. The aircraft landed smoothly and taxied up beside us and then proceeded past us. The pilot then spent the next fifteen minutes taxiing up and down flattening down a piste for his take-off - and all the time the clouds were gathering.

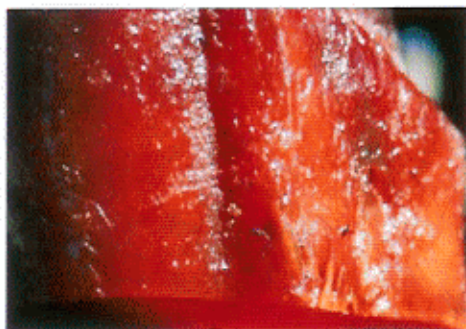
By the time all the kit was on board and we were strapped in the tops of the mountains had disappeared in cloud. This was mildly alarming for most of us, but the pilot seemed unperturbed and simply pointed the nose at the mountain opposite and took off. The aircraft seemed to take an eternity to climb, but eventually we were looking down on mountain tops and we could breathe a collective sigh of relief.

Post-expedition

A one night stopover in Isafjordur turned into a bank-busting fish, chips and beer celebration. After a good night's sleep in a guesthouse we were up early the next morning to catch our flight to Reykjavik. Then the expedition splintered as Bob and Rob flew back to the UK a few hours later.

The rest of us stayed a couple of extra nights and spent the time exploring the fascinating city. We tried local delicacies such as hakarl (take one shark, bury in the ground until very decomposed and then eat within dashing distance of a toilet) and brennivin (known locally as the "Black Death"). However, much to Sean's dismay we did not get to sample puffin. We also went whale watching and luxuriated in the thermally heated Blue Lagoon.

We returned to wet and grey UK on 25th July and all of our heavy equipment arrived back in the UK a couple of months later.



Mmmm! - Hakarl



The Blue Lagoon

DETAILS OF MOUNTAINS CLIMBED ON EXPEDITION MIDNIGHT SUN 03 (Previously climbed peaks in red)

Nr	Date	Name	Height (GPS)	Latitude and Longitude	Ascensionists	Route
1	08.07.03	Not known	1911 m	69°08.164'N 26°18.518'W	2 nd ascent Bohl and Palmer 3 rd ascent 14.07.03 Appleyard and Coles	East Face (F+)
2	09.07.03	Unnamed	1966 m	69°08.155'N 26° 23.947'W	1 st ascent Appleyard, Beaumont, Bohl, Coles, Sean Dolan, Sue Dolan, Palmer and Smithson	Southwest Face (F+)
3		Unnamed	2083 m	69°08.956'N 26°23.309'W	1 st ascent Bohl, Palmer and Smithson 2 nd ascent Beaumont, Coles, Sean Dolan and Sue Dolan	West Face (PD) Northeast Face
4	10.07.03	Unnamed	1987 m	69°06.716'N 26°20.658'W	1 st ascent Bohl and Palmer	East Face (F+)
5		Unnamed	1804 m	69°08.666'N 26°16.735'W	1 st ascent Beaumont, Coles, Sean Dolan, Sue Dolan and Smithson	North Face and East Ridge
6		Rignysbjerg	1970 m	69°06.323'N 26°20.170'W	1 st ascent Bohl and Palmer	North Ridge (AD)
7	11.07.03	Lornasbjerg	2218 m	69°09.629'N 26°26.519'W	1 st ascent Appleyard, Beaumont, Bohl, Coles, Sean Dolan, Sue Dolan and Palmer	Southwest Face (F+)
8		Deborahsbjerg	2358 m	69°10.252'N 26°24.806'W	1 st ascent Bohl and Palmer	West Face Gully (PD-)
9	13.07.03	Remlapsbjerg	1834 m	69°11.289'N 26°13.981'W	1 st ascent Palmer, Appleyard and Bohl	West Face (PD-)
10		Unnamed	1784 m	69°11.266'N 26°19.874'W	1 st ascent Beaumont, Coles, Sean Dolan and Sue Dolan	South Ridge (F)
11	14.07.03	Adamsbjerg	1955 m	69°09.629'N 26°16.740'W	1 st ascent Bohl	North Face (AD-)
12		Erinsbjerg	1867 m	69°09.075'N 26°17.018'W	1 st ascent Bohl	Northwest Face (F+)
13		Not known	1930 m	69°10.600'N 26°21.136'W	2 nd (?) ascent Beaumont, Dolan Sean, Dolan Sue and Smithson 3 rd (?) ascent 15.07.03 Appleyard, Bohl, Coles and Palmer	South Face (F)
14	15.07.03	Bernisbjerg	1900 m	69°15.461'N 26°20.248'W	1 st ascent Beaumont, Sean Dolan, Sue Dolan and Smithson	West Face (F+)
15	16.07.03	S 'n' S Sup	1937 m	69°12.548'N 26°24.130'W	1 st ascent Sean Dolan and Sue Dolan	Southwest Face
16		Unnamed	1830 m	69°14.992'N 26°23.678' W	1 st ascent Beaumont and Smithson	Southwest Ridge
17	17.07.03	Sisters (West)	1873 m	69°04.377'N 26°32.479'W	1 st (?) ascent Love and Love (29.06.98) 2 nd (?) ascent Bohl and Palmer	East Ridge (F)

Nr	Date	Name	Height (GPS)	Latitude and Longitude	Ascensionists	Route
18		<i>Sisters (East)</i>	1867 m	69°04.457'N 26°32.575'W	1 st ascent Love and Love (29.06.98) 2 nd ascent Bohl and Palmer	Northeast Face (F)
19		<i>Pinnacle View</i>	1907m	69°04.212'N 26°34.574'W	1 st ascent Bailey and Franks (26.06.98) 2 nd ascent Appleyard (1 st ascent of route) 3 rd ascent Coles (1 st ascent of route)	North Face North Ridge(F+) South Ridge (F+)
20		<i>The Nob South</i>	1773 m	69°04.753'N 26°30.680'W	1 st ascent Bailey and Franks (26.06.98) 2 nd ascent Bohl and Palmer 3 rd ascent Appleyard and Coles (18.07.03)	Northwest Ridge (F) West Face (AD)
21		<i>The Nob North</i>	1854 m	69°04.818'N 26° 31.015'W	1 st ascent Bailey and Franks (26.06.98) 2 nd ascent Appleyard and Coles 3 rd ascent Bohl and Palmer	East Ridge (F) Southwest Ridge (F)
22		Unnamed	1813 m	69°13.118'N 26°31.024'W	1 st ascent Beaumont, Sean Dolan, Sue Dolan and Smithson	Northeast Ridge (F)
23	18.07.03	Unnamed	1986 m	69°14.552'N 26°30.280'W	1 st ascent Sean and Sue Dolan	West Ridge (PD)
24		<i>Candle Lighter's Mountain</i>	2034 m	69°14.924'N 26°30.825'W	1 st ascent Sean and Sue Dolan	Southwest Ridge (PD)
25	19.07.03	<i>Angisoorsuaq</i>	2797 m	69°02.932'N 26°49.267'W	1 st ascent Bohl and Palmer	South Face (AD)
26		Unnamed	1968 m	69°10.367'N 26°30.362'W	1 st ascent Sean and Sue Dolan	North Ridge (F)
27		Unnamed	2010 m	69°10.423'N 26°31.083'W	1 st ascent Sean and Sue Dolan 2 nd ascent Appleyard and Coles (21.07.03)	South Ridge (F)
28		<i>Unnamed</i>	2127 m	69°09.554'N 26°26.994'W	1 st ascent Beaumont and Smithson	Northeast Face
29		Unnamed	1905 m	69°10.019'N 26°28.242'W	1 st ascent Smithson	Not known
30	20.07.03	<i>Pyramid</i>	2497 m	Not known - GPS malfunction	1 st ascent Love and Love (14.06.98) 2 nd ascent Bailey and Franks (14.06.98) 3 rd ascent Bohl and Palmer	South Ridge (F) East Face and Northeast Ridge (F)
31		Not known	1935 m	69°11.463'N 26°29.961'W	2 nd (?) ascent Beaumont, Sean and Sue Dolan and Smithson	North Ridge (F)
32		<i>Three Bears</i>	1853 m	69°10.544'N 26°38.959'W	2 nd ascent Appleyard and Coles	North Ridge (F)
33	21.07.03	Not known	2047 m	69°10.177'N 26°31.648'W	2 nd (?) ascent Appleyard and Coles	East Face (AD-)
34		Not known	1880 m	69°10.130'N 26°29.413'W	2 nd (?) ascent Sean and Sue Dolan	East Face

Phase 1 - Overview of Peaks Climbed (08-15 July 2003)

- ▲ First ascents
▲ Previously climbed peaks

Peak 7
Lornasbjerg 2218 m
N 69 09.63 W 26 26.52
1st ascent 11.07.03
Southwest Face (F+)
Appleyard, Beaumont,
Bohl, Coles, Palmer,
Dolan S and S

Peak 8
Deborahsbjerg 2358 m
N 69 10.25 W 26 24.81
1st ascent 11.07.03
West Face Gully (PD-)
Bohl and Palmer

Peak 13
Name unknown 1930 m
N 69 10.60 W 26 21.14
1st ascent unknown
14.07.03 S Face (F)
Beaumont, Dolan S and
S and Smithson
15.07.03 S Face (F)
Appleyard, Bohl, Coles
and Palmer

Peak 10
Unnamed 1784 m
N 69 11.27 W 26 19.87
1st ascent 13.07.03
Southwest Face
Beaumont, Smithson,
Dolan S and S and
Coles

Pk 3 Unnamed 2083 m
N 69 08.96 W 26 23.31
1st ascent 09.07.03
West Face (AD+)
Bohl, Palmer, Smithson
2nd ascent 09.07.03
Northeast Face
Dolan S and S, Coles
and Beaumont

Pk 2 Unnamed 1966 m
N 69 08.16 W 26 23.95
1st ascent 09.07.03
Southwest Face (F+)
Appleyard, Beaumont,
Bohl, Coles, Palmer,
Dolan S and S and
Smithson

Pk 9 *Remlapsbjerg* 1834 m
N 69 11.29 W 26 13.98
1st ascent 13.07.03
West Face (PD-)
Palmer, Appleyard and
Bohl

Pk 11 *Adamsbjerg* 1955 m
N 69 09.08 W 26.16.74
1st ascent 14.07.03
North Face (AD-)
Bohl (solo)

Pk 12 *Erinsbjerg* 1867 m
N 69 09.08 W 26.17.02
1st ascent 14.07.03
Northwest Face (F+)
Bohl (solo)

Peak 6
Rignysbjerg (?) 1970 m
N 69 06.32 W 26 20.17
1st ascent 10.07.03
North Ridge (AD)
Bohl and Palmer

Peak 4
Unnamed 1987 m
N 69 06.72 W 26 20.66
1st ascent 10.07.03
Northeast Face (F+)
Bohl and Palmer

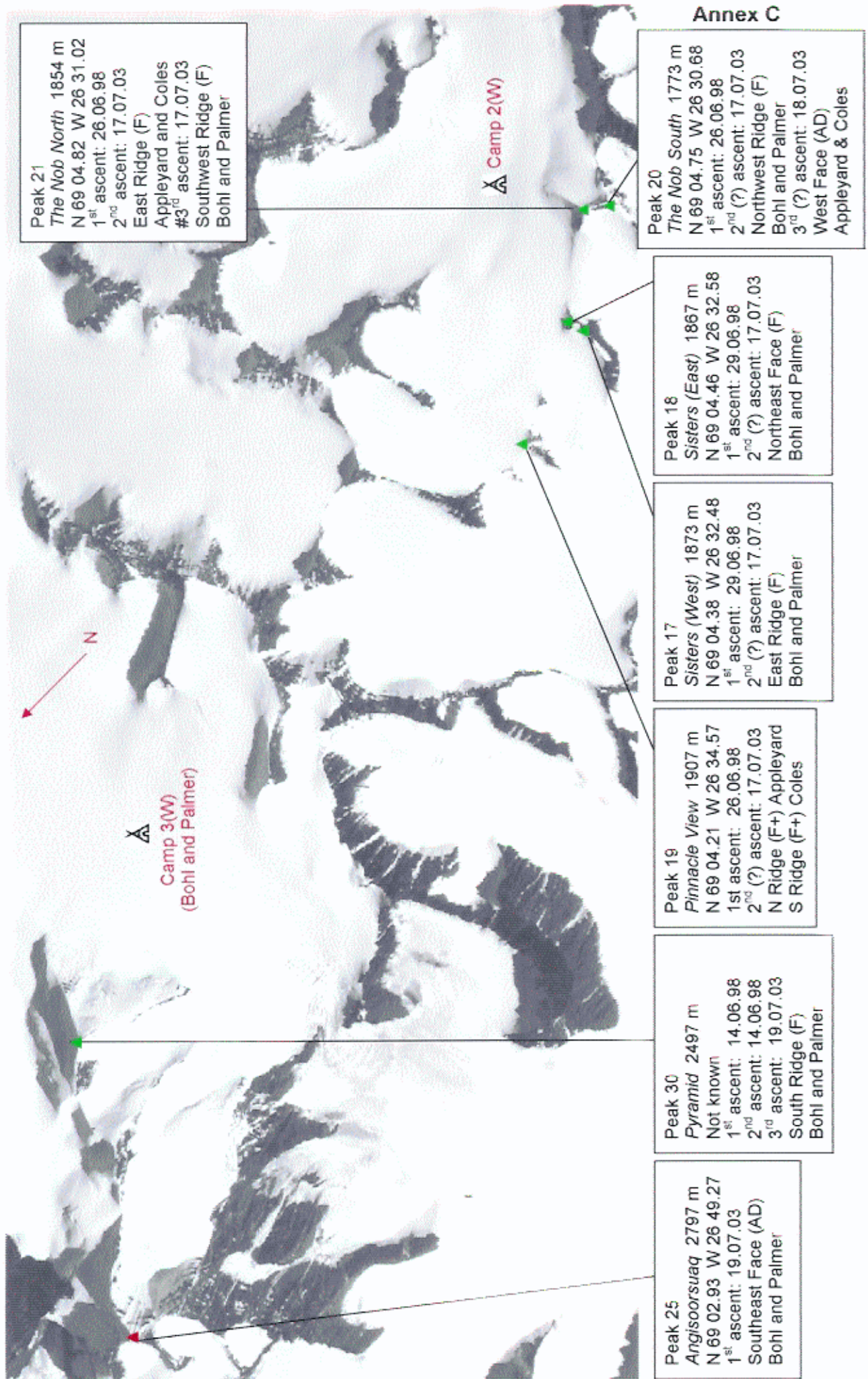
Peak 1
Unnamed 1911 m
N 69 08.16 W 26 18.52
1st ascent unknown
08.07.03 E Face (F+)
Bohl and Palmer
14.07.03 E Face (F+)
Appleyard and Coles

Pk 5 Unnamed 1804 m
N 69 08.67 W 26 16.74
1st ascent 10.07.03
North Face & East Ridge
Appleyard, Beaumont,
Coles, Dolan S and S
and Smithson



Phase 2 - Overview of Peaks Climbed by the Western Group (17-20 July 2003)

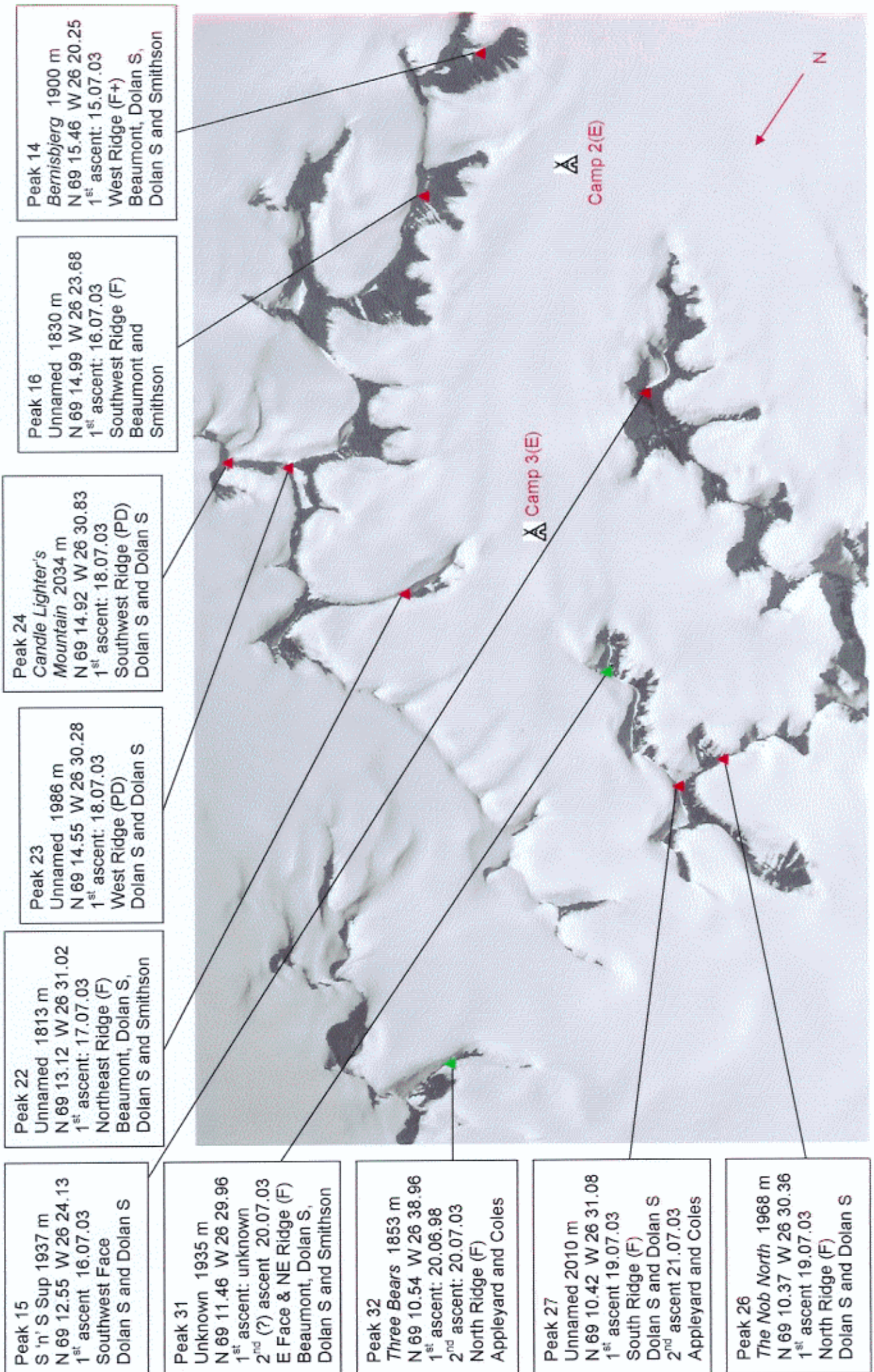
- ▲ First ascents
- ▲ Previously climbed peaks



Annex C

Phase 2 - Overview of Peaks Climbed by the Eastern Group (15-21 July 2003)

▲ First ascents
▲ Previously climbed peaks



Financial Report

Income

Standard Contributions

Expedition	8 x 2500	£20,000.00
Insurance	8 x 180	£1,440.00
Food (Notional)	8 x 90	£720.00

Additional Personal Contributions

Bob		£330.03
Martin		£29.40
Rob		£72.00
Mike		£253.02
Guy		£87.20
Sean		£147.00
Phill		£269.20
Sue		£0.00

Grants

Gino Watkins		£300.00
BMC		£900.00
RAFMA		£400.00
MEF		£400.00

Interest

		£126.16
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Money returned to participants: £1, 837.92

Total Income: £23,636.09

Expenditure

£20,000.00	Expedition
£1,440.00	Insurance
£734.21	Food (Actual)

	Equipment
£73.05	Batteries
£58.08	Tent pegs
£86.50	Misc
£224.00	First Aid
£70.00	Avalanche
	Transponders
£18.00	Primer
£21.00	Repair Kit
£310.40	Transport - UK Out
£104.80	Transport - Iceland Out
£70.40	Transport - Iceland In
£204.00	Transport - UK In
£32.25	Overhead Photos
£137.00	Meals - Iceland
£52.40	T Shirts

£23,636.09 Total Expenditure

Equipment List

		Individual Weight (gm)	Total Quantity	Total Weight (gm)
Climbing Equipment				
Ropes				
	Ropes 9mm x 50 M	2500	4	10000
	Ropes 8.4mm x 50 M	2500	2	4800
	Ropes 8.1mm x 60 M (iceline)	2500	2	5000
Rack (Total weight all below)		3000	2	6000
	Ice Screws - Screw in		14	
	Ice Screws - Drive in		2	
	Rock chocs		12	
	Rock Pegs		6	
	Screwgate Krabs		8	
	Slings		8	
	Extenders (2 krabs ea)		16	
Other				
	Snow stakes	400	2	800
	Dead Man (inc Krab)	425	4	1700
Climbing Equipment - Total (kgs)				25.80
Group Equipment (including Tangent equipment)				
Stoves				
	MSR Whisperlite International	550	4	2200
	MSR 1 Ltr Fuel Canister	175	4	700
	MSR 0.5 Ltr Fuel Canister	100	4	400
	MSR Spares Kit	60	2	120
	Fuel (ltrs) (Tangent)	1000	32	32000
Pots Pans				
	1.5 ltr pan + lid + grip	400	4	1600
	1.0 ltr pan + lid	300	4	1200
	1.5 ltr Kettle + lid	660	1	660
Washing-up Kit				
	Pan Scrub / brush		4	
	Cloth		2	
	Bowl washing up		2	
	Wash liquid (375ml)		1	
	Small brush		1	
Tents				
	Quasar (RAFMA)	4500	4	18000
	Spare - small	3000	1	3000
	Snow pegs (80?)	20	80	1600
Miscellaneous				
	Sausage bags - MOD or equiv	500	7	3500
	2 way radios (pr) inc batts	400	3	1200
	Solar charger	311	1	311
	Solar Batt pack (inc 8 batts)	400	1	400
	AA batteries - rechargeable	30	12	360
	AA batteries - Duracell	30	224	6720
	AAA batteries - Duracell	25	12	300

	Solar Still kit	500	1	500
	Paracord var uses	100	1	100
	Barrel / packaging	4000	1	4000
	Stove Priming Paste	100	2	200
	Repair Kit (Ski Crampon / file)	2000	1	2000
	Toilet Paper (8 Rolls?)	100	8	800
	Toilet Seat - Lightweight!	500	1	500
	Group First Aid Kit	10000	1	10000
Kit Provided by Tangent				
	Pulk (Tangent)	11000	4	44000
	Rifle & Ammo	5000	1	5000
	EPIRBS & VHF Radio	3000	1	3000
	Flares	2000	1	2000
	Sat Phone / batt / recharge	4000	1	4000
Ski Kit (Weight all below)		8000	8	64000
	Skis / bindings (pr)		8	
	Skins (pr)		8	
	Harschisen (pr)		8	
	Poles (pr)		8	
	Ski Boots (pr)		8	
Group Equipment - Total (kgs)				215.05
Food				
	Man-day Rations (8x18days)	1200	144	172800
	Booze	1000	8	8000
Food - Total (kgs)				180.80
Personal Kit				
Climbing / Safety / Navigation				
	Crampons (pr)	1000	9	9000
	Ice Axe	800	9	7200
	Ice Hammer	800	7	5600
	Harness (+ belay device)	700	8	5600
	Prussiks and/or ropeman equiv	100	16	1600
	Ice Screw / sling / krab	150	8	1200
	Transceiver	150	8	1200
	Avalanche Probe	200	8	1600
	Snow Shovel	300	8	2400
	Helmet	400	8	3200
	Knife (touching the void!)	120	8	960
	Binoculars	300	3	900
	Sunglasses / goggles	200	16	3200
	Suncream / block / lipsalve	150	8	1200
	GPS	150	4	600
	Rucksac	500	8	4000
	Climbing Boots (pr)	2800	1	2800
Feeding / Drinking				
	Mug	50	8	400
	Bowl	50	8	400
	KFS	50	8	400
	Lighter	15	8	120

	Water bottle / hydration system	300	8	2400
	Terry's Chocolate Orange	150	6	900
	Pop Bottle	150	8	1200
	Thermos Flask (0.6 ltr)	425	8	3400
Sleeping				
	Bivi Bag	450	8	3600
	Sleeping Bag	1800	8	14400
	Thermarest	800	8	6800
	Liner	100	8	800
	Karrimat	450	8	3600
Clothing (Total weight estimate)				80000
	Underwear			
	Windsuit / Jacket + Trousers			
	Socks			
	Thermal tops			
	Long Johns / Tracksters			
	T shirts			
	Duvet Jacket			
	Salopettes			
	Clothing for Travel / Iceland			
	Head gear / hat / balaclava		16	
	Shoes / boots for camp wear (pr)		8	
	Gloves Climbing / Ski (prs)		24	
Other				
	Wash Kit inc		8	1600
	Book(s)		8	2000
	Travel Games, Cards, Pigs, etc			
	Camera / film		9	5400
	Passport		8	
	Driving licence (hire car?)		1	
	Cash - local currency?			
	Tissues / wet wipes			
	Medication (colds/flu etc)			
	Contact lenses / specs			
	Torch (for looking in bags!)		8	360
	Personal Food Supplement			
	Vitamin Pills		8	600
Personal Equipment - Total (kgs)				180.64

Equipment / Supplies	Actual	Allowance	Diff + / -
Climbing Gear	25.80		
Group Gear	215.05		
Food	180.80		
Total	421.65	440	18.35
Personal Kit	180.64	200	19.36
Grand Total	602.29	640.00	37.71

Rations

Planning for rations started well in advance of the expedition. The aim was to provide food that was nutritious, at a reasonable price and within a guide-line weight of 1.2 kg per person per day. The other crucial factor was to minimise fuel consumption by taking food that did not require prolonged cooking.

Reports from previous expeditions provided useful information. It was decided that we should make up 24-hour packs for shipping to Greenland. This had a number of advantages:

- it reduced the bulk and weight of packing materials
- it made portion management easy
- planning caches and splitting the party simple called for the correct number of ration packs to be counted out.

Different combinations of rations were tried over a total of 4 days. For convenience and value for money, instant noodles were favoured as a stable source of carbohydrates. The other main sources of carbohydrates were par-boiled (quick cook) rice and pasta dishes. These were supplemented by four days of 'specials' – tins of ham in cook-in sauces.

Tinned fish (one tin per person per day) and the tinned ham were the main supplies of protein. The consensus on chocolate and other high-calorie snacks was to go for cereal bars and other 'slow burn' sources of energy.

A typical 24-hour pack consisted of:

Breakfast:	2 x Sachets Oats-so-Simple 1 x Breakfast Bar 2 x Hot Chocolate	Lunch: 200 grams Mixed Nuts and Raisins 2 x Fruisli Bars 1 x Cereal Bar 1 x Chocolate Biscuit 1 x Pack Dried Fruit
Main Meal:	2 x Cup-a-Soups 2 x Instant Noodles or Noodles plus Rice (3 Days) or Noodles plus Pasta (3 Days) 1 x Tin Fish Chocolate Biscuit 'Cake' bar	
Specials:	Tinned ham and 'Cook in' Sauce as main meal on 4 days out of 16	
Supplements:	A chocolate birthday cake Jellies 20 Spare Portions Noodles Iso Star Drink Powder Tea, Coffee, Fruit Infusions (personal choice – not in expedition food packs) Whisky	

The calorie count was between 3500 and 3700 per pack depending on contents. We initially catered for 18 days to cover 16 days in Greenland plus emergency supplies in case of delays. This was dropped to 17 days to reduce the overall expedition freight load. We finished the expedition with approximately 20 unopened ration packs, and surplus soups, nuts and raisins, fruisli bars and sundry items. No body complained of going hungry!

Total cost - £734, working out at £5.10 per person per day for 18 days food. Almost all the food came from Asda. The grocery manager at the Huddersfield store was extremely helpful and assisted with portion planning and costing.

Good points: Low burden on fuel
Tinned fish
Ham and Cook in sauce
Value for money

Bad Points: Pasta never cooked properly, possibly due to slightly reduced boiling temperature at altitude

GPS and Mapping

There are no maps published for this area at a scale suitable for mountain navigation. However, the overhead photographs available were high quality and provided an adequate coverage of our area without gross distortion. The only minor problem was that two pictures were required for all the proposed area. This was easily solved - two photographs were scanned and joined using commercial software (Panavue Image Assembler) to form one overhead for the whole area. In addition, this software was able to remove some of the distortions present in the aerial photographs.

As the area is unmapped for mountaineering it was decided to undertake some basic mapping, combining GPS surveys and the overhead photographs. There were various technical and logistic problems to overcome if this was to be successful. A GPS will only hold a certain number of tracks and waypoints. Storage varies but some method had to be found to download and store waypoint and track records. Battery usage was also an issue. Trials in the UK in winter showed that the Garmin GPSs (Etrex and Summit) would operate for about 15 hours on continuous track recording. This would have provided about 2-3 days use in Greenland. However, there was little point in recording complete tracks. Though some were recorded, most information was recorded as Waypoints, extending battery life to many days. Battery life was not compromised by the cold in Greenland.

If the GPS information was to be of immediate value there had to be some way of combining it with the overhead pictures. After much research and debate about the pros and cons of various approaches it was decided to take a lap-top running OziExplorer. This is a GPS mapping tool, allowing various formats of data to be loaded and combined. By using the GPS data as master, any gross distortions in the overheads could be taken out. This was achieved by matching a GPS lat/long way-point to the actual position on the overhead photograph. This process was completed once we had four points spread over a reasonably large area around the first camp. Further calibration work was completed on return to the UK.

Lap top battery life was also an issue. Tests before the expedition showed a battery life of 2 hours. With a spare, the two batteries proved more than enough power for the 16 days of the trip. However, use had to be managed. Downloads from 4 GPSs were carried out in the same session every two days, taking about 10 minutes to complete. GPS/lap-top connection was via the Com 1 port using standard data cables.

None of the terrain features were initially named. To assist, we gave the composite overhead a lettered grid overlay. Subdividing each square into 10 (by eye) gave a 4 figure grid system, accurate to about 200 metres. This was adequate for naming way-points in the GPSs. Other benefits were that it allowed for planning and accurate descriptions of routes, cols, peaks and camps. The grid also assisted in radio communications, giving a usable position reference for all parties.

GPS Set-up: Degrees/minutes/decimal minutes
 UTM/UPS (Universal Transverse Mercator)
 WGS 84 (Earth model)
 Km
 Metres elevation
 Pressure – millibars
 Angle – degrees
 Heading – True

The GPSs proved to be very reliable and comparisons showed almost identical readings. One slight problem noted by the author was that they frequently lost magnetic (compass) lock. This was probably due to the large angle of declination. However, this was rarely a problem as most navigation was by eye in perfect weather. The loss of the built in compass would not prejudice any of the position readings obtained.

The overhead and GPS were calibrated around the first camp. Later in the expedition, about 10 km to the SW, the GPS plots were about 300-500 metres out from the overhead. These errors were taken out on return to the UK when battery life was not an issue! The final result comprised a calibrated overhead photograph with overlaid latitude/longitude grid.

References:

Panavue Image Assembler www.panavue.com
 Oziexplorer www.ozixplorer.com