



2001

Slough Mountaineering Group Expedition

EXPPg 01/50

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INTRODUCTION

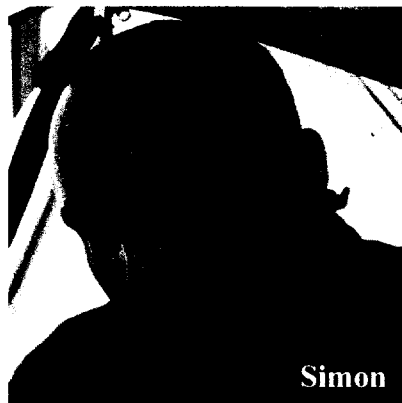
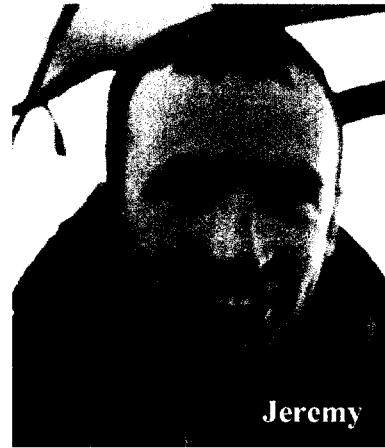
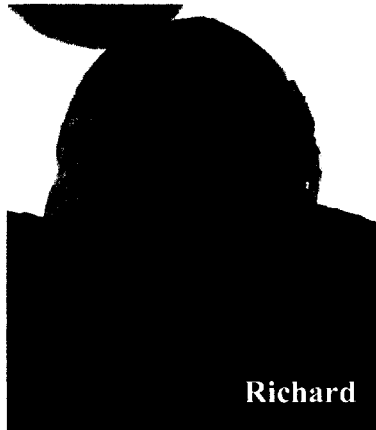
In 1999 a slide show of an expedition to North - East Greenland was given to Slough Mountaineering Group (SMoG). It showed the amazing scenery and total wilderness, with 24 - hour daylight, guaranteed snow and to top it all hundreds of unclimbed peaks.... The seed was sown.

It wasn't until the middle of 2000 though that a group of 8 club members started to actively plan the trip. Some members of the party were looking for ski ascents, others for more technical routes. Either way, given the potential cost of the trip, we wanted to find an area that had a good number of unclimbed summits. We considered some relatively well - known ranges such as the Lemon Mountains and the Watkins Mountains, but these didn't seem to have quite the right combination of attributes that we required. Then Paul Walker of Tangent Expeditions told us of a range of unclimbed mountains called Martin Knudsen Nunatakker.

This range lay at about 73 degrees north, to the west of Petermanns Bjerg and south - west of Louise Boyd's Land (which had been visited by a Cambridge University Expedition in 1999). In extent it was about 50 kilometres north to south and 12 kilometres east to west. The southern and central part of the range comprised a series of ridges aligned in an east - west direction, separated by glaciers which drained eastward from the icecap to join Victor Madsen's Gletscher. The northern part of the range had a more complex topography, with ridges orientated in all directions and separate compact massifs. The rock was believed to be gneiss, thus offering slightly better climbing prospects than basalt, which is common in other areas of Greenland. Judging from the aerial photographs of the range there also appeared to be a number of possible ski ascents.

Paul Walker seemed an obvious choice to organise the logistics of the trip, given the complexities of arranging a drop-off by ski-equipped Twin Otter plane in such a remote area. This left us to sort out the food and the equipment and get the necessary finances together. Financial assistance was received from the Mount Everest Foundation and the British Mountaineering Council.

EXPEDITION MEMBERS



The team's collective experience encompassed expeditions to Peru, Bolivia, India and Nepal. All members had alpine experience in varying degrees, mostly in Europe but also in North America. Skiing experience in the group ranged from having had one weeks skiing on a school trip, to numerous telemark tours in Norway.

Expedition members :

Richard Bungay

Age : 36

Occupation : electronics design engineer

Denise Forster

Age : 37

Occupation : accountant

Jeremy Fuller

Age : 28

Occupation : systems engineer

Adrian Kemp

Age : 34

Occupation : project manager – software

Mark Lampard

Age : 37

Occupation : software tester

Expedition leader

Simon Needham

Age : 34

Occupation : accountant

Dave Newcombe

Age : 41

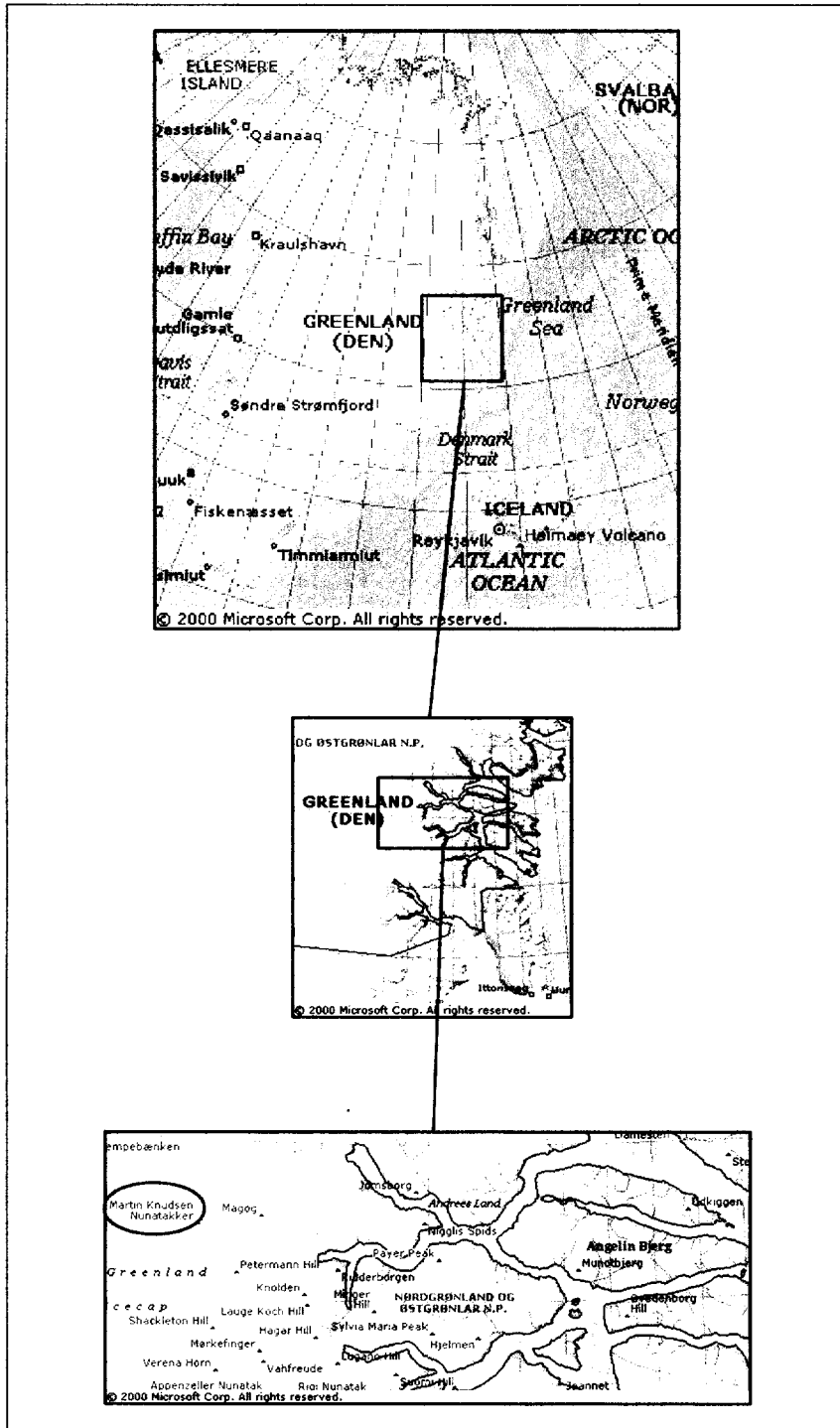
Occupation : head of marketing

Michele Reason

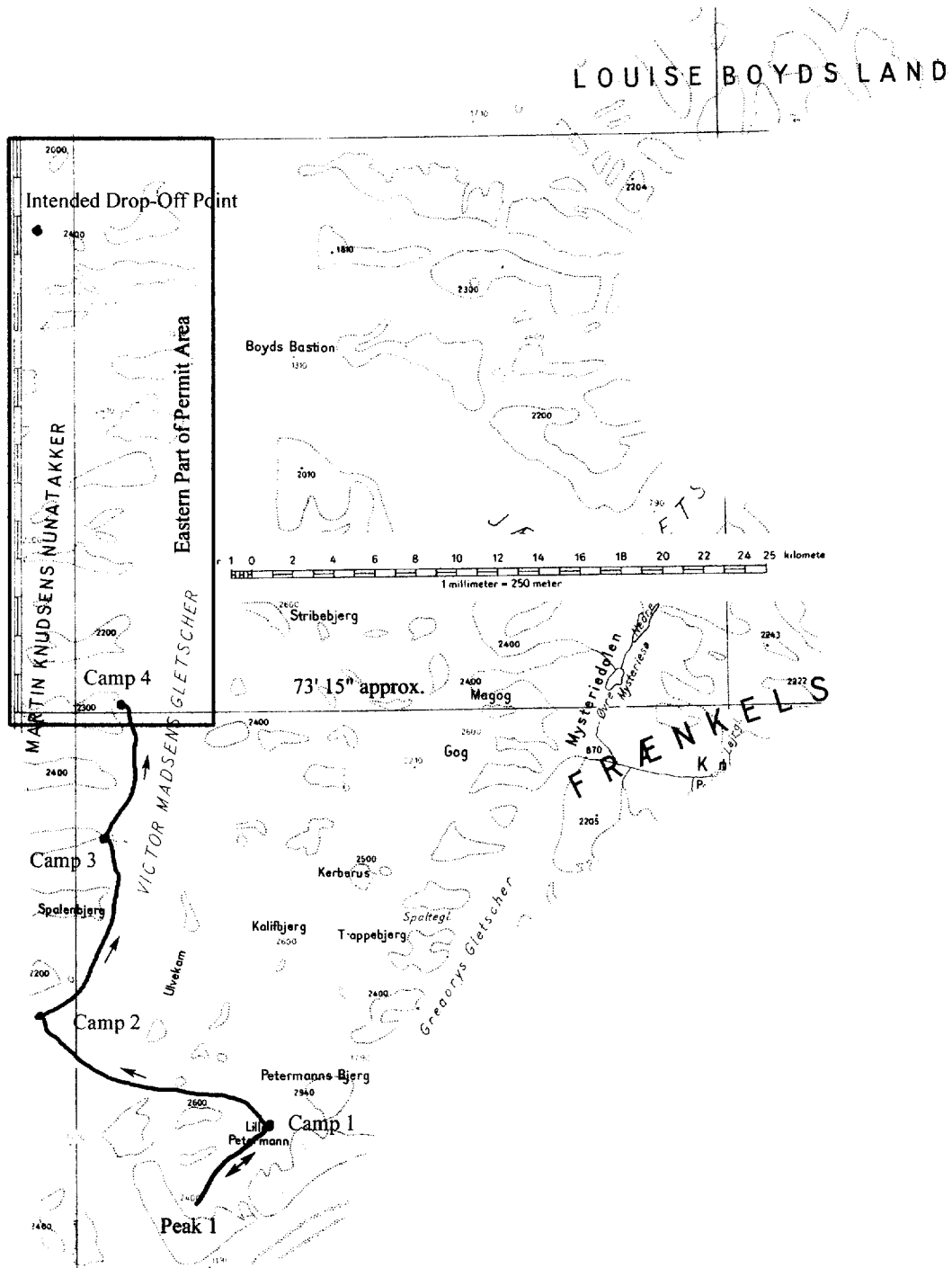
Age : 40

Occupation : software consultant

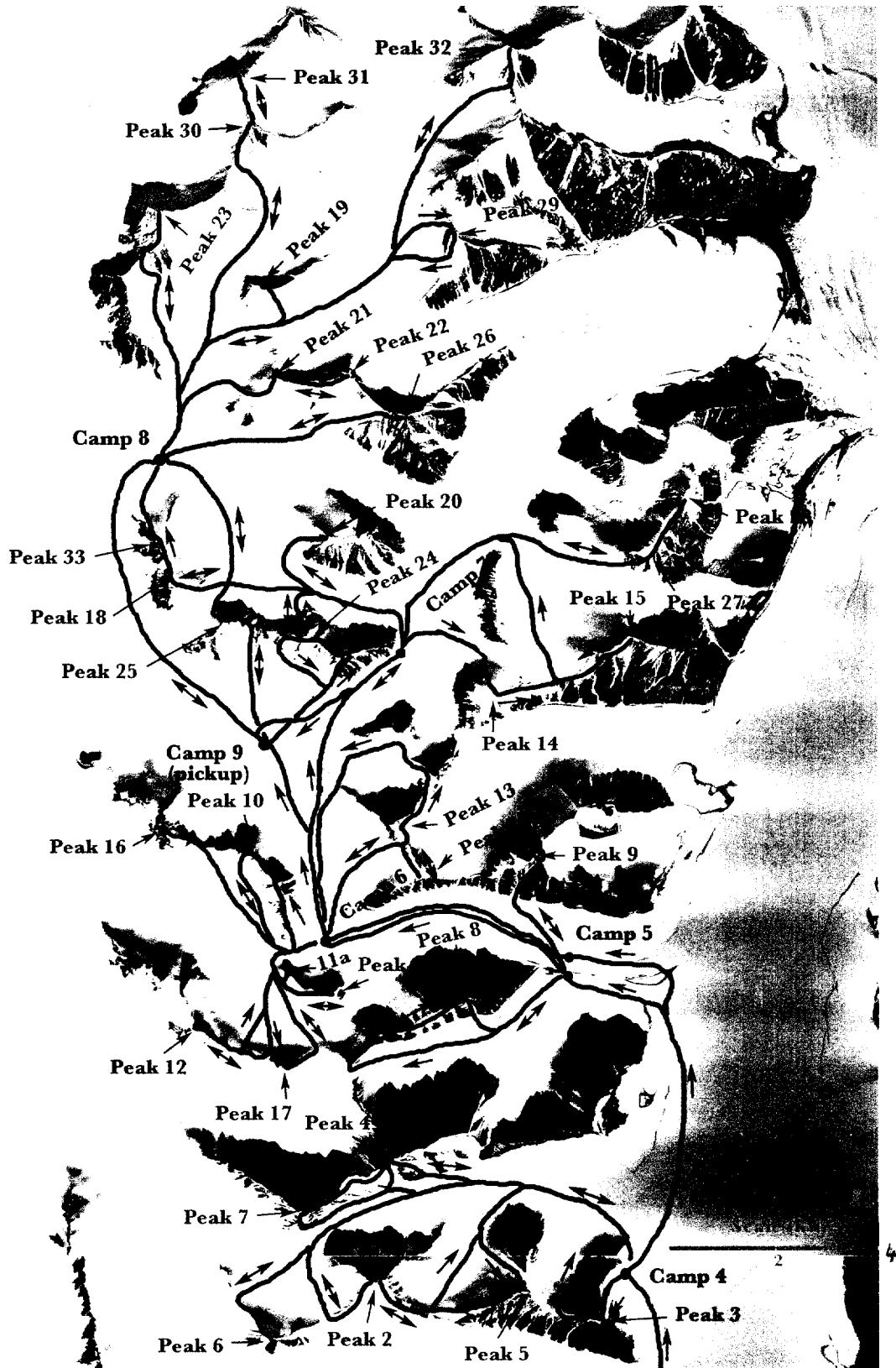
GENERAL LOCATION MAPS



MAP OF ROUTE FROM DROP - OFF POINT



AERIAL PHOTO OF PERMIT AREA



LOG

<u>Date</u>	<u>Camp Reached</u>	<u>Peak Ascended</u>	<u>Asc. From</u>	<u>Altitude Measured</u>	<u>North</u>	<u>West</u>	<u>Grade</u>	<u>Ascentionists</u>	<u>Comments</u>
02/06/01	Camp 1			2073	73 05 05	28 44 41			Dropped off 42km from intended drop off point
03/06/01									Rifle practice and reconnoitre
04/06/01		Peak 1	C1	2421			F	ML,MR,DF,SN	Peak had been climbed before
05/06/01	Camp 2			1789	73 07 50	29 05 00			Travelled 12km in 8 hours. SN & DF stopped after 9km
06/06/01	Camp 3			1706	73 12 41	28 58 17			Travelled 10km in 6 hours
07/06/01	Camp 4			1559	73 16 22	28 56 53			Travelled 7km in 5 hours
08/06/01		Peak 2	C4	2497	73 16 21	29 07 33	F	ML,MR	W Ridge
08/06/01		Peak 3	C4	2240	73 15 54	28 58 42	AD -	RB,JF,DF,SN,AK	E Face / NE Ridge - descent N Face
09/06/01		Peak 4	C4	2619	73 17 50	29 06 47	F +	AK, DN	S Flank
10/06/01		Peak 5	C4	2385	73 16 13	29 01 39	PD	RB,JF	NW Face - descent W Ridge to Peak 2
10/06/01		Peak 2	P5	2515	73 16 21	29 07 33	F	RB,JF	Second ascent of peak - E Ridge
10/06/01		Peak 6	C4	2461	73 15 46	29 10 51	F +	ML,MR	N Ridge
10/06/01		Peak 7	C4	2602	73 17 20	29 09 31	PD -	DF,SN	S Face / S Ridge - descent E Ridge to Peak 4
10/06/01		Peak 4	P7	2597	73 17 50	29 06 47	PD	DF,SN	Second ascent of peak - W Ridge - descent S Face
11/06/01	Camp 5			1539	73 19 17	28 58 49			Travelled 5.5km
12/06/01		Peak 8	C5	2360	73 19 14	29 05 07	PD	DF,SN	W Ridge - descent E Ridge & S Face
12/06/01		Peak 9	C5	2490	73 20 53	29 01 31	AD -	RB,JF	S Face / SE Ridge - circuitous descent
12/06/01		Peak 10	C5	2374	73 20 31	29 10 46	PD +	AK,DN	SE Ridge. Left cache en-route
13/06/01	Camp 6			1964	73 19 53	29 08 28			Travelled 5km - 420 m of ascent
14/06/01									Snowbound in camp
15/06/01									Snowbound in camp
16/06/01									Snowbound in camp
17/06/01									Snowbound in camp
18/06/01									Snowbound in camp
19/06/01		Peak 11	C6	2194	73 19 19	29 08 34	F	DF,SN	W Flank
19/06/01		Peak 11a	C6	2174	73 19 30	29 10 09	F	ML,MR	Minor subsidiary peak
19/06/01	Camp 7			1800	73 22 58	29 05 47			Only Rich and Jeremy moved to this camp

LOG (continued..)

20/06/01	Peak 11	C6	2194	73 19 19	29 08 34	F	ML,MR	Second ascent of peak
20/06/01	Peak 12	C6	2472	73 19 04	29 13 29	AD	DF,SN,AK,DN	E Ridge
21/06/01	Peak 13	C6	2435	73 21 07	29 06 32	F +	All except RB,JF	W Flank - DF,SN descended NW ridge
21/06/01	Peak 13a	P13	2282	73 20 42	29 05 42	F	ML,MR,AK,DN	Minor subsidiary peak
21/06/01	Peak 14	C7	2185	73 22 33	29 02 02	F	RB,JF	W Bowl - descent to Peak 15
21/06/01	Peak 15	P14	2370	73 23 06	28 58 20	AD -	RB,JF	W Ridge
22/06/01	Peak 16	C6	2412	73 21 03	29 14 43	AD	DF,SN	SE Ridge
22/06/01	Peak 17	C6	2348	73 18 39	29 10 12	F	AK,DN	E Ridge
22/06/01	Camp 8		1900	73 24 55	29 15 58			Mark & Michele established camp - travelled 12km in 7 hrs
22/06/01	Peak 18	C7	2315	73 23 38	29 15 07	F	RB,JF	NE Flank / E Ridge
23/06/01	Peak 19	C8	2383	73 26 36	29 11 18	F	ML,MR	SE Ridge
23/06/01	Peak 20	C7	2390	73 24 04	29 09 13	PD	RB,JF	W Face
24/06/01	Peak 21	C8	2365	73 25 42	29 11 06	F +	ML,MR,AK,DN	W Flank - Ady & Dave continued to Peak 22
24/06/01	Peak 22	P21	2352	73 25 44	29 08 36	PD	AK,DN	W Ridge from Peak 21
24/06/01	Peak 23	C8	2600	73 27 16	29 15 27	PD +	DF,SN	SE Face / S Ridge
24/06/01	Peak 24	C7	2365	73 23 02	29 09 53	PD +	RB,JF	NW Face
25/06/01	Peak 25	C8	2351	73 23 10	29 12 56	AD -	DF,SN	W Ridge
25/06/01	Peak 26	C8	2375	73 25 21	29 06 47	PD +	AK,DN	W Ridge
25/06/01	Peak 27	C7	2470	73 24 04	28 57 35	PD +	RB,JF	SE Flank - descent N Ridge to Peak 28
25/06/01	Peak 28	P27	2505	73 24 29	28 56 39	AD	RB,Jf	S Ridge from Peak 27
26/06/01	Peak 29	C8	2258	73 27 17	29 04 46	PD -	ML,MR	N Ridge
26/06/01	Peak 30	C8	2535	73 28 20	29 12 26	PD	DF,SN	E Face / S Ridge - descent to Peak 31
26/06/01	Peak 31	P30	2540	73 28 45	29 12 50	F	DF,SN	S Ridge from Peak 30
26/06/01	Peak 32	C8	2430	73 29 11	29 02 48	F	AK,DN	W Flank / S Ridge
26/06/01	Camp 9		2012	73 21 37	29 10 59			Rich & Jeremy established this camp
27/06/01	Peak 18	C8	2285	73 23 35	29 14 46	F	ML,MR	Route of 1st ascent - descent to Peak 33
27/06/01	Peak 33	P18	2216	73 23 54	29 15 14	F +	ML,MR	From Peak 18
27/06/01	Peak 25	C9	2355	73 23 10	29 12 56	PD +	RB,JF	Second ascent of peak - E Ridge
28/06/01	Peak 24	C9	2365	73 23 02	29 09 53	AD	DF,SN	S Face Pillar / E Ridge - descent S Face
29/06/01								Picked up at 14:45

A GENERAL ACCOUNT OF THE EXPEDITION

When we landed on the glacier at 8pm on Saturday 2nd June, it was after 24 hours of almost continuous travel.

We had met up at Stansted airport the previous evening to catch an 11.30 p.m. flight to Keflavik in Iceland. A 45-minute bus ride had taken us into Reykjavik where we were booked into Snorris Guesthouse. After arriving at the guesthouse at about 3.00 am, we had to be up again by 6.00 am in order to catch an internal flight to Akureyri where we met up with our kit that had been freighted out in advance. After checking it was all present, and with a couple of hours to spare before our departure by charter plane to Greenland, we took a walk into town. Some stocked up with delicacies such as bacon and cheese to take to Greenland while others went for a coffee and chocolate cake.

After a flight of an hour and a half we landed at the bleak airstrip of Constable Pynt (Ittorisseq) on the east coast of Greenland. Here we encountered a small hitch; a list of all the items in our kit was required for customs purposes – something we had been told was rarely required. These were rapidly drawn up to the satisfaction of the authorities while the Twin Otter pilots waited, anxious to get going. That done, we rushed around getting changed into more suitable clothing, filling fuel containers, collecting the hired pulks (and replacing one of them with a larger model) and the rifle. This had to be borrowed from Benny, the airport manager as the Tangent rifle had been mislaid somewhere else in Greenland. Then we were off, hoping all the kit had also been loaded onto the plane.

A flight of about two hours north - east took us 400 kilometres to Martin Knudsen Nunatakker (MKK). After flying over the tundra of Jameson Land, we crossed the incredibly rugged Staunings Alps, then over further ranges we couldn't name. The weather was clear until we approached our destination, then a line of cloud appeared to the west.

Our planned drop – off point at 73° 27'' north, 29° west was enveloped in cloud, forcing the pilot to look for somewhere nearby at lower altitude to land. These areas were very badly crevassed however, so he announced that we could either fly to Mesters Vig and try again the following day, or he could drop us off further south. We rashly opted for the latter course, unsure if we'd have to pay for the extra flying time if we'd taken the former. (We found out later that we wouldn't have been).

A very smooth landing was made, close to the base of Petermanns Bjerg (the highest peak in the high arctic), about 40 kilometres away from our intended drop off point. We jumped out and sank up to our knees in deep powder snow. Quickly we unloaded the plane, then it was gone, the isolation suddenly hitting us. The wind whipped spindrift across the snow, and at a height of over 2000 metres, it was bitterly cold. We pitched the tents using snow stakes and ski sticks (snow pegs were not much good until the snow had been stamped down a bit), and decided to review our situation the next day.

On the 3rd we woke to the sound of light snow on the tents. The surrounding peaks were hidden in cloud. The morning was spent making the loo pit larger and more wind resistant. We also dug a large 'kitchen' – the only one we made as we found cooking in our tents more comfortable, if less sociable thereafter. Virtually every stitch of clothing had to be put on before venturing out of the tents.

"Its f***** arctic out here", shouted Richard, stomping around outside. For once this was not an over-statement! We all had a practice shot with the rifle. 7 out of 8 hit a savage – looking cardboard box, but then it wasn't moving very fast. We doubted if a polar bear would be so considerate! A brief recce of the surrounding area was made in the afternoon, which revealed a broad col to the west, which would give a possible direct route to the southern end of MKK.

The next morning, spindrift battered the tents but the clouds had mostly cleared. In the wind and with four weeks worth of food and fuel to drag, there was little inclination to move camp towards MKK just yet, so in the afternoon most of the group decided to ski south to a rounded peak (Peak 1), hoping to make a ski ascent. Icy slopes and a fierce wind forced us to don crampons however. We found a small cairn on the summit, which was at about 2400 metres. Meanwhile Richard and Jeremy skied towards Petermanns Bjerg, tempted by an ascent, but it remained obstinately hidden by a cloud.

The wind died down on the 5th. A decision had to be made – to climb some of the peaks in the area, or to start pulking west towards MKK. The drawback with the former was that we knew that several expeditions had climbed in the area around Petermanns Bjerg so many of the peaks had probably already been climbed. Also these peaks were outside our permit area, so we decided to move on.

The next decision was the choice of route. We could go west over a col onto the upper reaches of Victor Madsen's Gletscher (VMG), then west again before skirting down the west side of MKK to our permit area. Alternatively we could follow the glacier north from our camp to join VMG lower down and take one of a number of glaciers westward into the range. The potential problems with this option were that we might have more height gain to drag the pulks up and encounter more crevasses, so we decided to take the former route, though it was not a unanimous decision.

We left camp in the late afternoon. Each pulk had attachments for one pulk harness, but as the pulks generally weighed more than the combined weights of those pulling them, most pairs also rigged up climbing harnesses to traces, so that the effort was shared. Even so, it soon became obvious where the body weight to pulk weight imbalances lay!

We crossed a broad col west of camp and descended a long slope onto the expansive upper reaches of VMG. To our west lay the southern massifs of MKK. Down on the glacier there wasn't a breath of wind and the temperature soared. Through the afternoon and into the evening we made slow progress across the great white expanse. Richard and Jeremy took the lead most of the time, breaking trail. Even so the group gradually became spread out. Towards midnight, a cold wind sprang up. Most of the party stopped on the lower reaches of a glacier which spilled down from southern MKK. Simon and Denise stopped a little earlier, catching up with the rest at Camp 2 the following morning.

With some pulking experience now under our harnesses, we realised that our original route would prove more arduous than expected, and would take us to higher, colder altitudes again. It was far more appealing to follow VMG gently downhill and make a first 'permanent' camp as soon as we reached our permit area, hopefully in a slightly warmer environment. The only drawback was the potentially more strenuous haul to move the camp to the higher western areas at a later stage.

And so the 6th and 7th of June were spent dragging our pulks north along the left bank of VMG, passing the numerous ridges and glaciers of southern MKK. The pulks were responsive to every change in snow conditions and slope angle, running relatively easily when the surface was smooth and compact, but real pigs when it was bumpy or soft, which was often. We found that packing the weightier items in the tail of the pulk helped slightly. We had another intermediate camp, Camp 3, en route, situated below a shattered red cliff.

We reached the first camp in our permit area (Camp 4) on the afternoon of the 7th. It lay on a slight rise above the main glacier, at the foot of a snow and rock face. It was sheltered from the wind to some extent by this, and the curling edge of a major side glacier which joined VMG just to the north. On the east side of VMG were some fine looking peaks, but we didn't know if they had been climbed so in the next three days we concentrated our activities on the peaks that lay along the ridge west of the camp, and on the next ridge north. In total we accounted for six peaks between us. The lower altitude of the camp allowed us to use solar power and some black bags to good effect in melting snow for water – something that had been impossible at our first camp. The site lost the direct sun between about 9.00 p.m. and 3.00 am however, becoming very cold.

After exhausting the possibilities in the immediate area, we decided to move the camp north again. It had been noted from the summits of Peaks 4 & 7 that the glacier to the north of them appeared to offer a smooth easy gradient which would allow us to eventually move our camp west to higher elevations with new potential. We planned to camp near the foot of this glacier for a few days, before moving on up it.

And so on the 11th we had a relatively short pulk round to Camp 5. This was next to a medial moraine dividing the main east - west glacier from a smaller glacier to its south, and at the foot of a rocky wedge shaped peak. A scattering of boulders around camp gave some relief from the snow as well as providing good cooking platforms. Ady and Dave camped further out onto the main glacier. They had taken a slightly different route, being concerned that they wouldn't be able to get their pulks across the moraine. In the event it was quite easy to do this. Only one day's climbing was achieved from this camp, which was a pity given its fine situation. There wasn't a huge range of peaks that were easily accessible from it however, and on the 13th of June a bitter wind discouraged climbing.

We decided to take advantage of this colder day by moving up the glacier westward to a higher camp, Camp 6, at its head. There were great expanses of bare ice on its lower and middle reaches, and by using crampons instead of skis a good rate of progress could be maintained, despite the uphill gradient. Richard and Jeremy managed the ascent on skis – tenuously linking small patches of snow. As altitude was gained the

ice was overlain by soft snow, so everyone's skis went back on, and progress slowed once more.

After 420 metres of ascent we reached a broad snow bowl where we sited the new camp. By the time we'd pitched the tents and dug out a palatial loo, cloud had descended and it began to snow. Ady and Dave arrived in the evening, having started out later and picked up a cache they had made on the glacier the previous day, on their way to the first ascent of Peak 10.

The next day it was still snowing, allowing us to take advantage of a rest day. However we were dismayed to find that on the following day, the 15th, the snow had not abated. Despite this it was relatively warm and the snow was sticky and wet. Occasionally, a weak sun would be visible through the clouds, but they never cleared. Protective walls and ditches, some of impressive proportions, which were dug around the tents quickly filled up. Days three and four at Camp 6 passed in much the same fashion. On day five, boredom drove Simon and Denise to go and stamp down a piste on a gentle slope near the camp, just for something to do that didn't involve festering in a tent or reading the limited supply of books.

The 19th of June looked like following the same pattern, though the sky was a bit lighter. We didn't want to raise our hopes too much however. Richard and Jeremy decided to move to another new camp (Camp 7) further north on the basis that there was little else it was possible to do in the weather than pull a pulk. The rest decided to stay put, since they hadn't done anything in the vicinity of the Camp yet, and the thought of pulking in such deep snow did not appeal.

Then the miraculous happened – the clouds started to break up, and by mid afternoon they had retreated to form only a thin veil away to the east. The sun sparkled off fresh snow crystals. Frantic activity ensued, Denise and Simon skiing up the small summit above camp while Mark and Michele headed north on a recce of the other local peaks. They caught up with Richard and Jeremy who'd by that time put glide wax on the bottom of their pulk to ease its passage through the deep snow. It did the trick admirably. Ady and Dave meanwhile attempted Peak 16 from the north but were beaten back by deep snow loosely lying on scree.

The party was now split. The main group still at Camp 6 spent a further three days climbing in that area. Gradually the snow consolidated, but the avalanche risk remained high, forcing careful choice of route. Even so, the depth of snow on the ridges made for strenuous going. Communication was sometimes made with Richard and Jeremy in their lonely northern outpost by radio. Their day's climbing tended to start mid afternoon, which usually resulted in them being on a summit at 10.00 p.m. – our agreed call time. Unfortunately the radio batteries at Camp 6 were running low as Jeremy had the solar panel we were using to recharge the batteries. Also, the power-amplifier of one of the radios was destroyed while testing whether it could be charged directly from the panel. This meant we only had two radios with transmit/receive capabilities and one that could only receive – the power a solar panel supplies should never be underestimated in Greenland!

On the 22nd Mark and Michele decided to move north - east to establish yet another new camp, Camp 8, leaving Richard and Jeremy alone to continue 'hoovering up' the

peaks in 'their' area. Simon, Denise, Ady and Dave followed them to Camp 8 the next day. With a fair bit of food and fuel consumed, the pulks were now a lot lighter, and the steady ascent north out of Camp 6 was accomplished without a rest stop. The original tracks made by Richard and Jeremy and re-excavated by Mark and Michele helped enormously in this respect. The weight was further reduced when surplus food and kit were left at a cache close to the pre-arranged pick – up co-ordinates.

Camp 8 was in a very open and beautiful position. The great expanse of the Hambergs glacier extended to the west, beyond which rose the isolated peaks of Niels Holgerson Nunatakker, and beyond them again the gentle ethereal folds of the main ice cap. Eleven peaks were ascended from the camp, some after quite long ski approaches. Richard and Jeremy's Camp 7 lay about 8 kilometres to the east across a broad col, but the parties were still only in occasional radio contact. Around this time the occupants of Camp 7 had the only close encounter with fauna on the trip. Walking over to the loo pit, Richard was startled by a great white object rising from behind the walls. It was just as well that it was only a seagull, as the gun was with the main party.

The expedition finally regrouped on the 27th of June at Camp 9, the site of the cache. Richard and Jeremy arrived a day earlier after a short pulk – a 'rest' day after their effort on 'Twin Peaks' – having climbed seven peaks in total from their lone camp. With one day to go, Denise and Simon bagged a final route a short ski away.

The 29th of June, the pick up day, was fine and cloudless. We had been dreading another long storm. In fact we had enough provisions to sit one out, having only consumed about three-quarters of the food and just over half the fuel. This was as a result of planning a diet based on calories alone and being able to melt snow by solar power for most of the expedition. At 2.45 p.m. the sound of a plane broke the silence. It circled round and landed shooting down the glacier and throwing up plumes of snow before slowly taxiing back to come to a halt, only yards from us.

Six people stepped out, the flight crew, and a Tangent guided expedition on a follow-up trip to MKK. We quickly loaded the gear and hopped in. The pilot wound the engines up, but we didn't move. He tried again, and we broke free from the snow and picked up speed. We flew back over many of the peaks we'd climbed, getting a new perspective on them. We flew over Petermanns Bjerg, where the trip had started, then over the coastal fjords and glaciers, spread out below like pictures from a geography textbook.

Approaching Constable Pynt, the landscape was notably greener and freer of snow than on the way in. Then it had seemed like the 'back of beyond' but now it almost seemed like a metropolis. In a few hours we were back in Reykjavik, showered and tucking into rather expensive, but real meat.

PEAKS CLIMBED

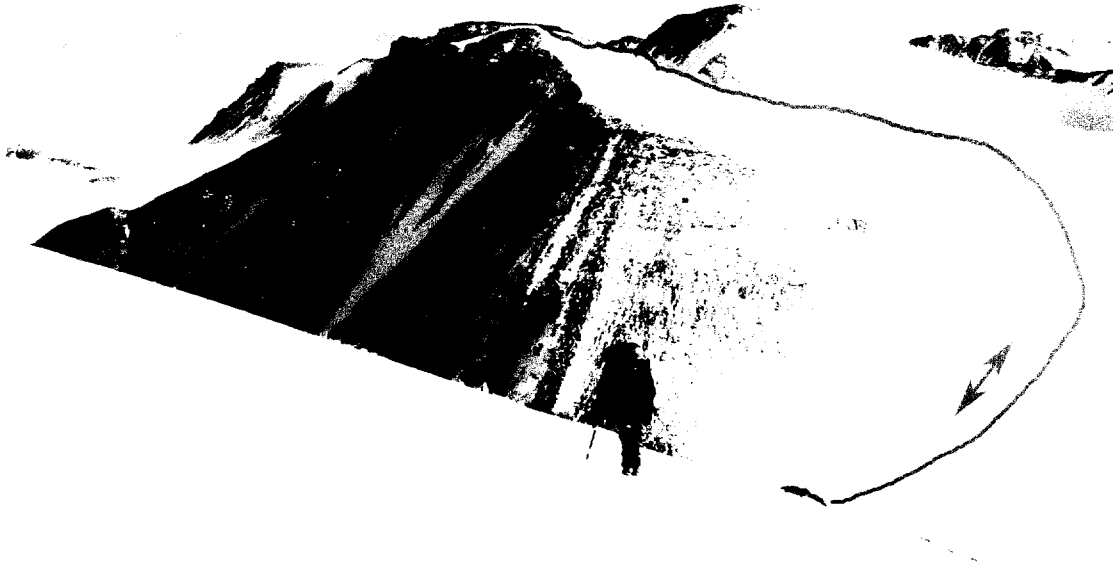
This section lists all the peaks that were ascended, in chronological order (apart from second ascents which are described following the first ascent details). Standard alpine grades are given; the routes were generally on a somewhat smaller scale than in the European Alps, but obviously with a greater degree of seriousness given the location. Peak 1 was the previously ascended summit we climbed south of our drop – off point.

Metres of ascent from camp are given (or from the preceding cols where the peak was climbed immediately after another peak) after the route name, followed by the approximate alpine grading.

NOTES ON ALTITUDE MEASUREMENT

All altitudes were measured using GPS units. The sea level pressure was not known so barometric altimeters were only useful for ascertaining the relative altitude of different points over a short time period. In general we achieved accuracies of around 5 metres, and different GPS units tended to give fairly consistent heights for peaks which were ascended by more than one party, as well as the camp heights.

PEAK 2 ('Atlasta Peak') 2497 Metres



View from Peak 7

This peak consists of four almost symmetrical ridges, the south - easterly connecting with the main ridge, also containing Peak 3 and Peak 5, and the south - westerly connecting to an almost isolated peak – Peak 6. It has a steep north face draped with icy couloirs, which might provide routes of about D standard.

SOUTH WEST RIDGE 940 m from Camp 4 F

FA M Reason, M Lampard 08/06/01

After crossing the broad glacial col between Peaks 2 and 7, the south - west ridge was gained from the north side, avoiding the initial steep step. Skis were stashed at the rock boundary, and easy angled loose rock led onto the ridge. This was gentle and broad, with hard snow ice, and led to a large summit.

Descent was by the same route.

PEAK 2 – second ascent



Peak 2 from Peak 5

SOUTH EAST RIDGE 300 m approx. from col F

FA R Bungay, J Fuller 10/06/01

After ascending by this route, the party contemplated descending the steep north - east ridge, but decided against it and retraced their steps to the lowest point between the two peaks, and then returned directly to their skis down the cwm lying between Peaks 2 and 7.

PEAK 3 ('East End Peak') 2240 Metres



View from north - east

This peak forms the abrupt eastern termination of its massif. Other routes of a similar nature would be possible on the east face, as well as the face's bounding ridges.

EAST FACE 680 m from Camp 4 AD -

FA R Bungay, J Fuller, D Forster, A Kemp, S Needham 08/06/01

After wallowing the short distance from Camp 4 to the foot of the face, firmer going ensued, until we could cut left on poorer snow to a hard ice streak in the centre of the shallow couloir. Though providing no technical difficulty, the ice was rock-hard, and when it became buried in powdery snow belays were hard to find. A slightly more delicate section through the 'narrows' led into the upper section. Exiting over the final small cornice was made less pleasant by a fierce wind blasting spindrift over from the west side. A mixed ridge of shattered rock and firm snow led on to the top.

Richard and Jeremy (who reached the summit about three-quarters of a hour ahead) attempted to traverse to Peak 5, but were stopped by dangerous windslab conditions. A descent was made of the north - west face, complicated lower down by some crevasses and also with a fair amount of poorly - bonded snow. Richard broke through into a small crevasse part way down but managed to avoid sliding down it, handily making it obvious to those following. A walk on snow with a variable thickness crust led back to camp.

PEAK 4 ('Fortress Peak') 2619 or 2597 Metres



First ascent was via r-hand route. 2nd ascent via l-hand ridge and descent

This peak's graceful curves, when viewed from the south, belie impressive north and north - west faces separated by a fine ridge. All of these would offer good and quite hard routes. The first ascentists measured the higher of the two heights given above. The second ascentists reckoned it to be about 5 metres lower than Peak 7.

SOUTH FACE 1060 m from Camp 4 F +

FA A Kemp, D Newcombe 09/06/01

The original intention was a ski - reconnoitre up the next glacier north but the party was deflected. West of the first snowfield a rocky shoulder descended to the glacier. Skis were left here. After ascending snow to the east of the shoulder, it was crossed to a second snowfield with a steep diagonal traverse west to a second rocky shoulder. Good rock on the shoulder was followed until it petered out, then firm snow followed by some ice led to the summit ridge. In the fine clear weather there were good views all round.

Descent was straight down the snow/ice to the second rocky shoulder where a short traverse left (E) led into a gully descending to the second snowfield. After crossing to first shoulder the party kept right (W) of rocks and descended snow to the glacier.

PEAK4 - second ascent



The final steep section of the west ridge

WEST RIDGE 200 m approx. from col PD

FA D Forster, S Needham 10/06/01

After making the first ascent of Peak 7, the east ridge of that peak was descended to a broad, bleak high-altitude col. Gentle slopes on a broad ridge then led to steep and airy snow climbing on the final section, on good firm snow.

The first ascentists route was followed in descent as far as the 'second rocky shoulder' whence a long descending traverse on the south face led back to the glacier and the stashed skis.

PEAK 5 2385 Metres



View from Peak 7

A generally snowy but steep – sided peak with a steeper rocky summit.

NORTH WEST FACE 825 m from Camp 4 PD

FA R Bungay, J Fuller 10/06/01

After being turned back by poor snow while trying to traverse from Peak 3, a second attempt was made. By taking the mountain from the northwest face to reach the northern spur it proved quite easy to reach the summit, in approximately 3 hours from Camp 4. The party then descended the rocky west ridge en route to the second ascent of Peak 2.

PEAK 6 ('Fracture Peak') 2461 METRES



View from slopes of Peak 7

An isolated peak south - west of Peak 2. It has a fine snow arête on the north - west ridge and a steeper north - east ridge. The summit gives fine views west towards the ice cap.

NORTH WEST RIDGE 900 m from Camp 4 F +

FA M Reason, M Lampard 10/06/01

From the glacial col between peaks 2 and 7, a bowl was crossed and a steep ascent made onto the north - west ridge. This formed a fine snow arête to the summit, narrow and airy in places with a final small loose rock step.

Descent was by the same route.

PEAK 7 ('Wall Peak')**2602 METRES**

South face

This peak has long north - west and east ridges and an extensive north face of steep snow topped by rocks. The south face is narrower and mixed with potential for more direct routes of some interest, cornices permitting.

S FACE AND SPUR**1045 m from Camp 4****PD**

FA D Forster, S Needham 10/06/01

A fairly broad snow gully, with reasonable conditions underfoot, led onto the broad south spur. This was composed of tottering perched blocks with occasional small steps of a more solid nature, which gave some avoidable entertainment. It narrowed slightly above a shoulder before merging into an icy slope. The summit lay a surprising distance back, and was composed of two snow humps of equal height.

The east ridge was descended towards Peak 4. It was steep initially, but the snow was firm. It then gave an enjoyable and scenic traverse. Big cornices on the south side were easily flanked. A final curving arête dropped down to a broad col etched by sastrugi before the rise up to Peak 4.

PEAK 8 ('Wedge Peak')**2360 METRES**

View from summit of Peak 11

When viewed from the east this peak forms a distinctive dark rocky wedge between two glaciers. The long north face would provide some steep snow routes. The south face is less attractive, but equally steep. The traverse is almost certainly the best route.

WEST RIDGE / SOUTH FACE 820 m from Camp 5 PD

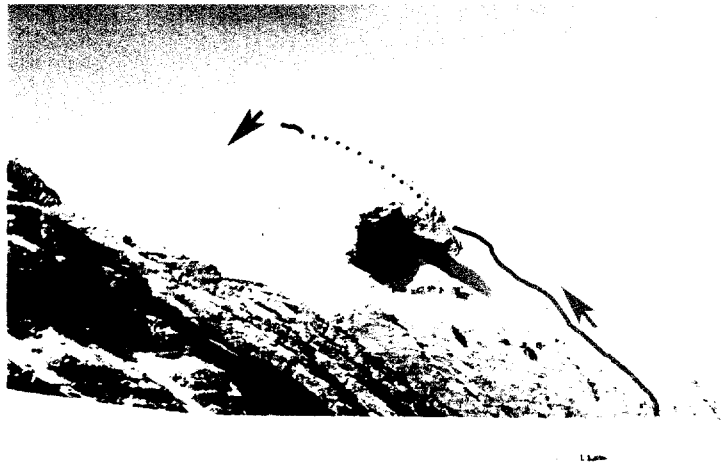
FA D Forster, S Needham 12/06/01

Large patches of bare ice on the glacier to the south of the peak gave way to a steep head slope of firm neve leading to a broad col which separated the peak from Peak 4. A steep ascent on snow, trending right, led onto the ridge. Though the flanks were quite steep the ridge gave easy going, sometimes on snow but often on flagstone – like rocks. It narrowed as it approached a steep rise with a distinctive white rock band. Easy scrambling led to the rock band, which was flanked on the right to gain a fine airy snow arête. Delicate cornices forced traverses on the north side in places to gain the summit.

The east ridge was descended, with large cornices forcing extensive traversing on the north face. Eventually the south face relented, allowing a scramble down broken rocks to a long snow gully, which led back to the glacier.

PEAK 9 ('Round and Round the Mountain Peak')

2490 METRES



View from camp 6

This peak has an air of isolation, being separated by a low col from it's nearest neighbour. It is rocky on the south side but steep and snowy on the north.

SOUTH FACE GULLY AND RIDGE

950 m from Camp 5

AD -

FA R Bungay, J Fuller 12/06/01

The weather was fairly windy and cold so Jeremy and Richard did not leave camp until nearly midday. They skied across the icy glacier to the start of a big gully that led to the summit. The gully contained a great deal of avalanche and fallen rock debris, so no time was wasted hanging around in it before making it to the shoulder of the mountain. Another 200 metres of mixed snow and rock led to the summit. At this point Jeremy and Richard should have descended the way they came or taken the ridge to the west. However an attempt to avoid the top section of the ascent route led to a traverse of the very steep north - west and then the east face of the mountain, which was a bit of a nightmare. With hindsight, an easier descent was probably possible by following the west ridge.

PEAK 10 ('Whale Peak') 2374 METRES



View from Peak 11a

Continually steep on the east and north - east faces, this long ridge gives a fine traverse.

SOUTH EAST RIDGE 835 m from Camp 5 PD +

FA A Kemp, D Newcombe 12/06/01

After pulling half a pulk load to a dump to save effort the following day in moving to camp 6, the first ascentists continued to the upper glacial bowl. Skis were left at the base of the ridge, then good firm though crevassed snow led quickly onto the main ridge. The ridge crest was too prone to slab avalanche to allow an easy walk to the summit, therefore the ridge was traversed on the west side slightly below the crest. A scramble over tottering towers and across blue ice led to a gentle incline up to the summit.

After returning down the gentle incline, a snowfield on the west was easily accessed and descended trending south - east. It got very badly crevassed as the ski dump was approached.

PEAK 11 2194 METRES



View from camp 6

A fairly insignificant peak but with good views all round, and offering a complete ascent on skis.

WEST FLANK 230 m from Camp 6 F

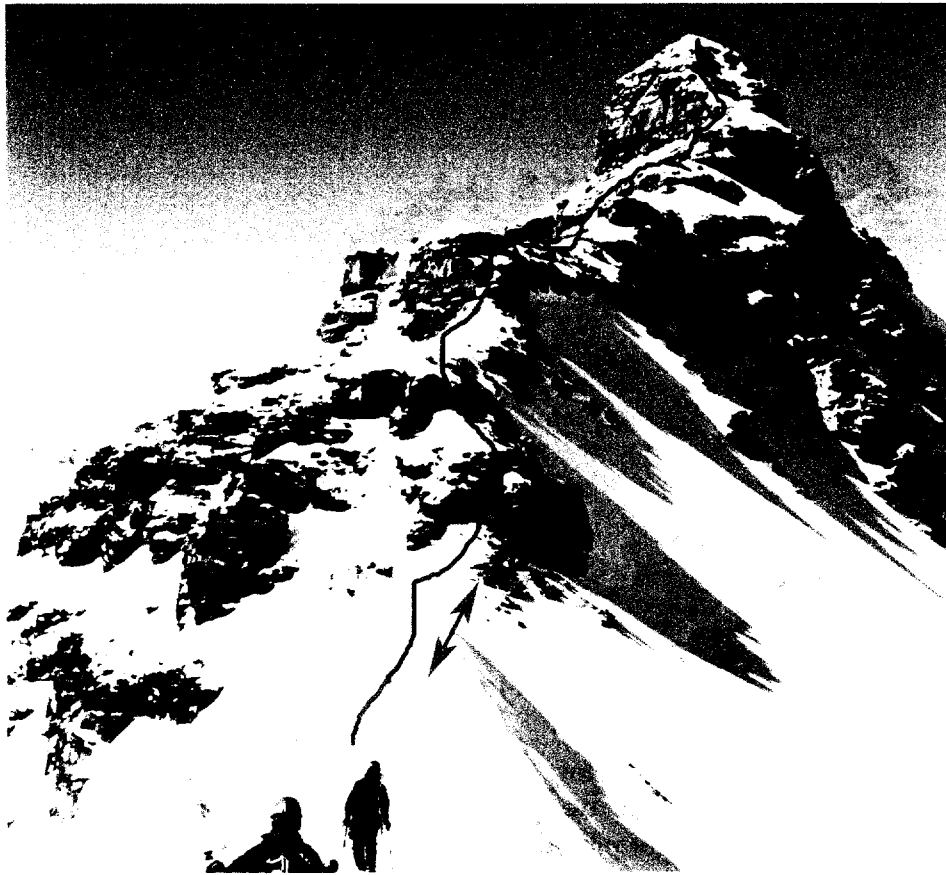
FA D Forster, S Needham 19/06/01

After a five – day storm conditions underfoot dictated a ski ascent of a peak without avalanche risk. This peak fitted the bill. Sticky snow caused a few ‘balling up’ problems with the skis however.

M Reason & M Lampard made the first ascent of the north - west top of the mountain on the same day (2174 metres).

PEAK 12 ('Tower Peak')

2472 METRES



View from snow shoulder part way up the route

The highest and easternmost of a compact chain of rocky tower – like peaks, the rest of which remain unclimbed and would provide relatively short but interesting ascents.

SOUTH EAST RIDGE 510 m from Camp 6 AD

FA D Forster, S Needham, A Kemp, D Newcombe 20/06/01

A steep ascent, just possible on skis in the deep snow conditions led to a col just west of Peak 17 (then unclimbed). After a pleasant undulating traverse west along a broad snow ridge, skis were dumped where the ridge became much narrower.

An arête with deep snow rose to a shoulder with a horizontal crest leading across to abut against the main part of the ridge. This was composed of alternating rock steps, some quite tricky, and snow arêtes. The rock was reasonable once the obvious loose blocks had been cleared. The snow was always deep and not possible to clear! A steeper step approaching the summit rise was breached by a hidden chimney on it's left. Descent was made by the same route.

PEAK 13 ('Snow Dome') 2435 METRES



View from col north of Camp 6

This is the fine snow peak north east of camp 6, notable for it's photogenic summit snow dome. It is supported on two sides by large rock buttresses, apparently of reasonable gneiss. These might provide some good routes if they are as solid as they look.

SOUTH WEST FACE 470 m from Camp 6 F +

FA – M Reason, M Lampard, D Forster, S Needham, A Kemp, D Newcombe
21/06/01

Easy snow slopes on the west flank could be ascended on skis for a fair distance, depending on the skin width used. A bergschrund part way up required care. A broad col was reached. North led to the final snow dome. An ascent of soft snow over hard ice led to a small cornice, which was breached to gain an extensive and rather windy summit plateau.

Different descents were taken. Denise and Simon followed a very broad undulating snow ridge north - east, with steep drops on both sides to an easy angled snow ridge descending west. The promise of an easy ski descent was quashed by the discovery that it was narrow, corniced and with steeper flanks than were apparent.

The rest of the party retraced steps to the broad col, then continued south east to a snowy subsidiary top (Peak 13a – 2282 metres) before following the route of ascent back to camp.

PEAK 14 2185 METRES



Peak 14 is the snowy lump on the left, Peak 15 the pronounced peak on the right

A rounded wind-blasted hump.

NORTH WEST FLANK 385 m from Camp 7 F

FA R Bungay, J Fuller 21/06/01

The day of the attempt on the pair's fifth summit coincided with mid summer's day. They decided to adopt a new strategy of setting off late in order to climb during the colder conditions of the evening and night. After skiing east from their new camp up a very steep snow field, they got to within 100 metres of the subsidiary summit next to the long ridge of Peak 15, which was their main objective of the day. The skis were left and the fore summit climbed, before returning to the skis and skiing down to the col to start the ascent of Peak 15.

PEAK 15 2370 METRES



View from Peak 14

A shapely peak with reasonable rock, forming a long ridge.

WEST RIDGE 300 m approx. from col AD -

FA R Bungay, J Fuller 21/06/01

This main ridge contained a number of interesting steep steps which offered a variety of rock and snow climbing. The summit of the ridge was a narrow snow crest, which was reached just before midnight. Rather than risk another epic descent Jeremy and Richard descended the way they had come, then avoided a very steep ski descent back to their camp by skiing an extra three miles down the valley before joining the main glacier. From here it was another three miles back up to base camp. They didn't know it at the time but they skied right over the top of a huge crevasse, which was to become visible when they passed the same spot a few days later.

PEAK 16 ('Gap Peak')**2412 METRES**

View from near site of Camp 9

A shapely peak, particularly when viewed from the north. The north face could provide a good direct route in the right conditions. The north / north - east ridges may provide the easiest route but it's quite narrow at the top, with a rock step to surmount.

SOUTH EAST RIDGE 450 m from Camp 6 AD

FA D Forster, S Needham 22/06/01

The col between this peak and Peak 10 was reached on skis from the south side. A narrow but level snow arête was followed by mixed going on shattered rock and deep snow. What was thought to be a levelling on the ridge proved to be a top, with a steep drop into a gap spanned by a graceful snow arête. There were no belays good enough to use to abseil, so it was necessary to down-climb, removing tonnes of rubble in the process.

The ridge proceeded with three major rises to the summit. Although interrupted by some small rock steps the main difficulties lay in negotiating delicate snow crests, often with considerable exposure above the north face. Tiring snow conditions persisted. Descent was by the same route and was somewhat quicker.

PEAK 17 ('Ice Mountain')

2348 METRES



View from west ridge of Peak 8

A conical peak of striking simplicity when viewed from the east, it has a steeper rockier face to the south - west. The west ridge was unsuccessfully attempted by Mark and Michele.

EAST RIDGE 385 m from Camp 6 F

FA A Kemp, D Newcombe 22/06/01

After being thwarted on an attempted repeat of Peak 8's west ridge by deep snow (which wasn't present on the first ascent), this peak was climbed as a 'consolation prize'.

A quick ascent was made. The party were very surprised to find hard packed snow and ice near the summit after the previous aborted route. Crampons had been left at the col by one member of the party, so step cutting was required for about 20m.

PEAK 18 2315 METRES



From peak 25. Picture also shows descent route following 2nd ascent, over Peak 33

A pleasant snow peak.

EAST RIDGE 515 m from Camp 7 F

FA R Bungay, J Fuller 22/06/01

One mountain, which had caught the attention of Richard and Jeremy a few days before, had a rock buttress which looked a bit like the head and wings of a condor, rather similar to a mountain in Bolivia “Condoriri”, so this was the next mountain on the agenda. However on reaching the ridge before the main rock section leading up to the summit the conditions looked far from ideal with a lot of fresh snow still lying on the buttresses. Therefore, they proceeded to head west along the ridge to climb this subsidiary summit on the end of the ridge.

PEAK 19 ('Middle Tongue') 2383 METRES



View from Camp 8

This peak appears as a snowy rounded lump when viewed from camp 8, but in fact it has a fairly long gently - angled northern ridge. Its relative isolation endows it with excellent views of the surrounding peaks.

SOUTH EAST RIDGE 485 m from Camp 8 F

FA M Reason, M Lampard 23/06/01

After skiing to the col between this peak and Peak 21, a steep rounded ridge / face was ascended. A large hidden bergschrund provided some interest. An extensive summit was reached.

A ski descent of the north - east ridge was then made.

PEAK 20 ('Pyramid Peak')

2390 METRES



View from Camp 8

On the aerial survey this isolated mountain bears a striking resemblance to a limpet. In the flesh this likeness is less apparent however. It has a steep north east face cut by a deep icy gully, a rubble - strewn south face, a narrow west face and a more gently angled north - west flank.

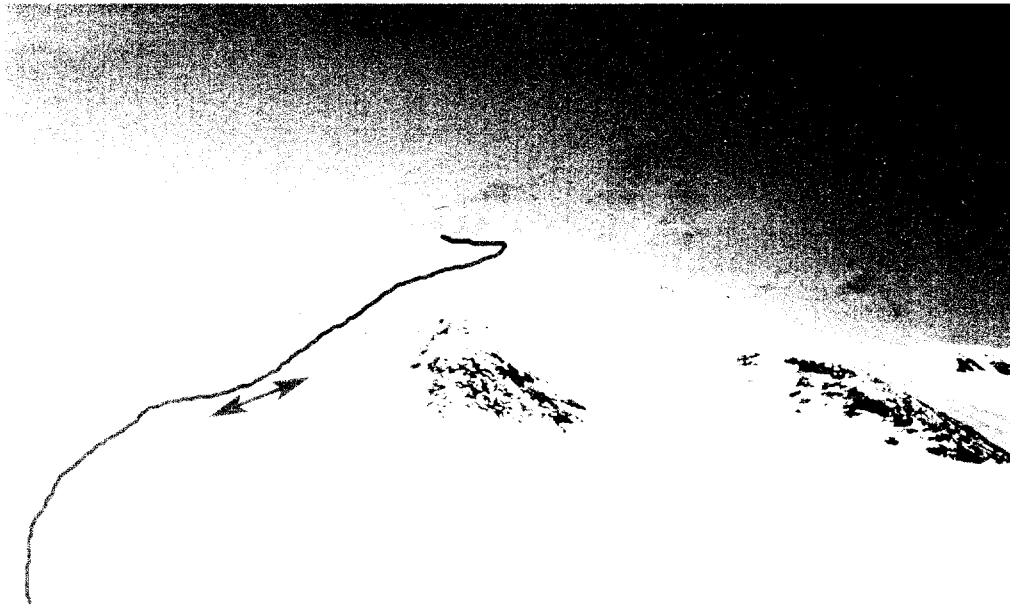
WEST FACE 590 m from Camp7 PD

FA R Bungay, J Fuller 23/06/01

The west face was climbed almost directly to the summit. The summit provided an opportunity to look over about 4 miles to the where the rest of the team had established a new camp and successful radio contact was made with the them from the summit of the mountain, at about 10pm.

Descent was by the same route.

PEAK 21 ('Mount Mare') 2365 METRES



View from Camp 8

This peak is the westerly end of a long ridge also containing Peak 22 and Peak 26

NORTH WEST FACE 465 m from Camp 8 F +/-PD -

FA M Reason, M Lampard, A Kemp, D Newcombe 24/06/01

After skiing to the second rock rib, the rib was taken direct by Ady and Dave but flanked on steepening snow slopes to right by Mark and Michele. Another rock rib was scrambled up onto a shoulder, from which the party headed north to the summit. Mark and Michele descended by the same route, with care required. Ady and Dave continued east along the ridge to peak 22.

PEAK 22 ('Central Treble Mint Mountain')

2352 METRES



View from Peak 21

The central peak of the ridge.

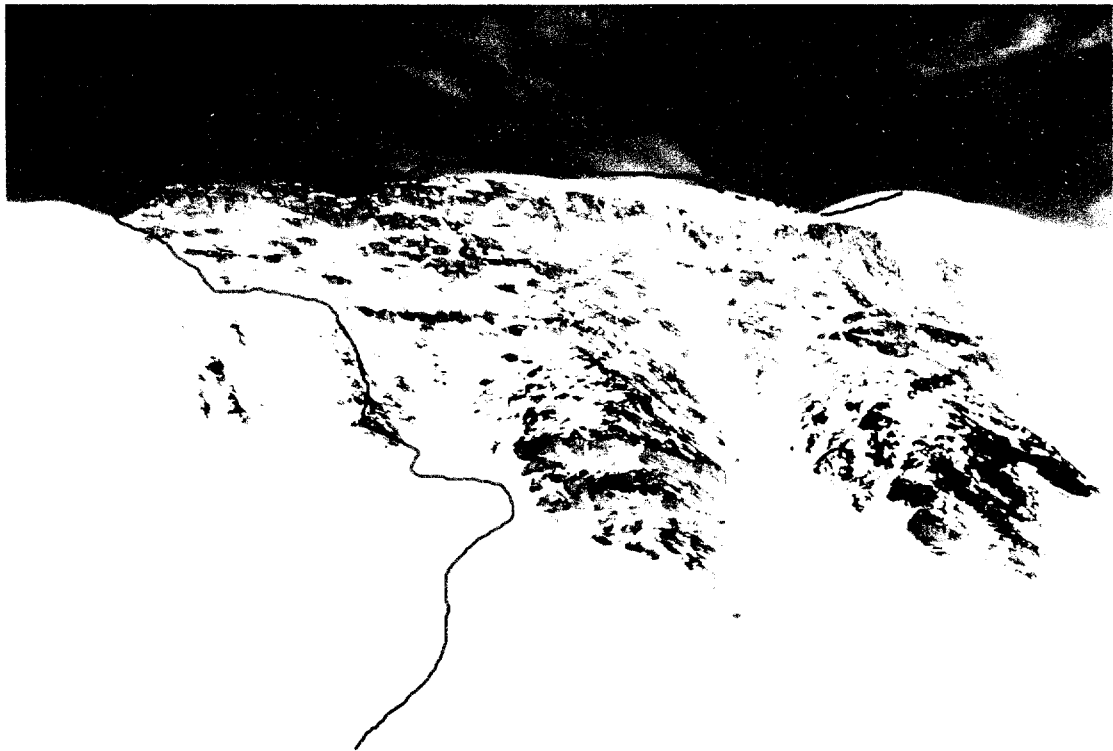
EAST RIDGE PD

FA A Kemp, D Newcombe 24/06/01

After traversing from Peak 21, crossing a broad col en route, a steep unstable rock step barred the way. This was traversed on snow around to its right. This required pitching for security, as the snow was only loosely attached to slabby rocks. It was then possible to ski to the summit. The continuation to the final summit on the ridge was left for the next day.

The party retraced their route of ascent, passing back over Peak 21. Low cloud and hence flat light did not make for easy skiing.

PEAK 23 ('Tent Peak') 2600 METRES



When viewed from the south this peak looks like a huge white ridge tent. Closer up it is a little more complex, with a long twisting south ridge running over several subsidiary tops, a steep mixed west face and a heavily crevassed north west face. In suitable conditions these would all provide interesting routes. The route of the first ascent takes the upper part of the south ridge.

UPPER SOUTH RIDGE 700 m from Camp 8 PD +

FA D Forster, S Needham 24/06/01

Due to the soft snow conditions, the party stayed on skis as far as possible up the east face of the south ridge, eventually leaving them in the shelter of a large overhang which separated two broad snow gullies. A broad rib composed of scree and rock steps was followed until it became snow-covered. A series of traverses and ascents leftwards on steep snow slopes, linking isolated rocks (which provided some security), gained the ridge.

A tower of split blocks was threaded by some through clefts, but a final steep step forced a short descent and re-ascent of a steep groove on the exposed west flank. The rock here was solid granite – a refreshing change from the usual shattered gneiss. Once regained, the ridge gave enjoyable mixed going until progress was barred by a tower. A right-rising traverse via a crack led to easier going to the end of the rocks. A very broad undulating ridge of fairly firm wind-blown snow led on to the summit.

PEAK 24 ('Emmental Peak')**2365 METRES**

View from Peak 25, showing route of 2nd ascent of Peak 25 in foreground

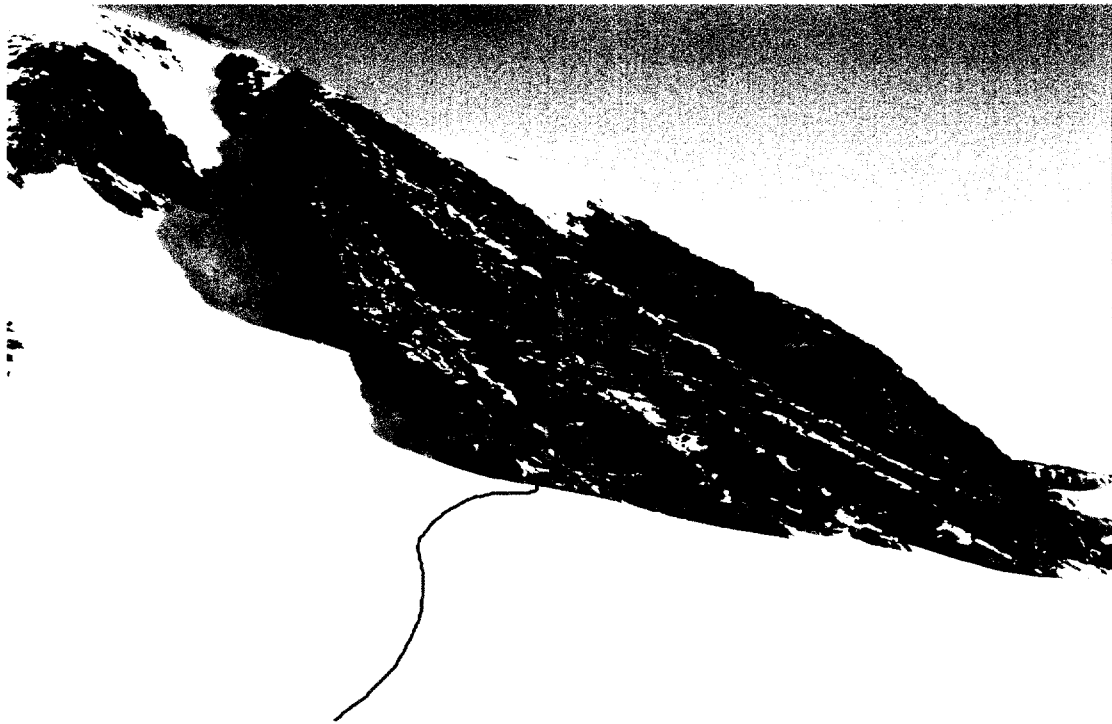
This is the highest peak of its chain with a steep north face and some notable rock pillars on the southern flank.

NORTH WEST FACE 565 m from Camp 7 PD +

FA R Bungay, J Fuller 24/06/01

It was decided to make another attempt on “Condoriri”, but this time by traversing the ridge from the east. The sky was becoming increasingly overcast as Richard and Jeremy set off, which made it hard to make out any definition on the snow. After a couple of hours skiing up to the base of the mountain, Richard led off through the deep snow. Although knowing they were in the region of the bergschrund, the party thought they were close enough to the ridge not to encounter anything too dramatic – wrong – Richard found the deep snow he was wallowing replaced by a six-foot wide crater in less than a second. The next thing he knew, he was suspended about 15 feet down a very large crevasse. A combination of Jeremy pulling and Richard climbing brought him safely back to the surface. Following this episode Richard decided it was Jeremy’s turn to lead, which he did up the steep snow slope to this summit without incident. The ridge leading west to “Condoriri” did not look inviting, therefore they decided once again to leave it for another day.

PEAK 24 - second ascent



View from Camp 9

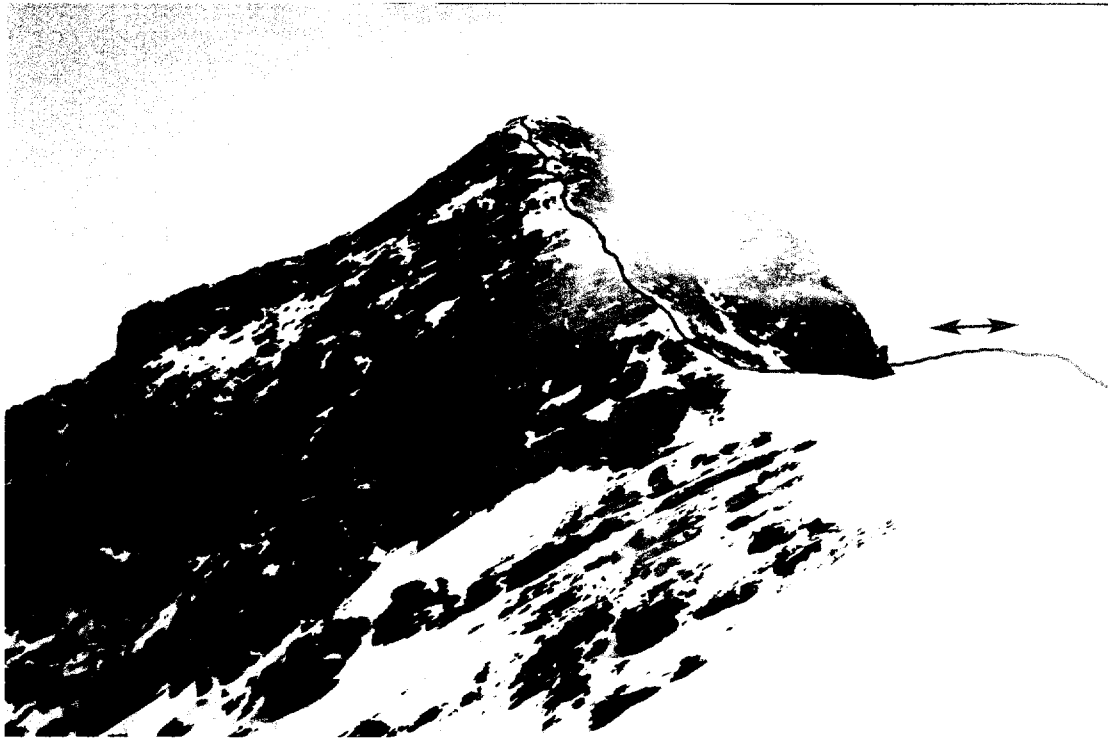
SOUTH PILLAR 370 m from Camp 9 AD

FA D Forster, S Needham 28/06/01

After a pleasant ski across from Camp 9, the initial broken step of the rib was ascended on blocky gneiss to an easier – angled section with snow patches. As the rib steepened again, larger rock steps barred the way, giving some interesting moves on compact rock. These steps were interspersed with areas of scree and blocks. The crux pitch involved some tricky climbing (in plastic boots at any rate) up a steep wall to enter a shallow groove. After another couple of pitches the angle eased and walking led to the main ridge of the mountain. This was followed westward to the summit on mostly firm snow, icy in places and becoming quite narrow and exposed near the top. Descent was made by the west ridge then the south face, as quickly as possible due to the threat of cornice collapse.

PEAK 25 ('Condoriri')

2351 METRES



View from north

A compact peak which rises abruptly from a snowy ridge to the west. It has a long bumpy east ridge connecting it with Peak 24. The north face direct might give a short but difficult route.

WEST RIDGE 450 m from Camp 8 AD -

FA D Forster, S Needham 25/06/01

An ascending traverse on skis led to the broad snow ridge to the west of the peak. The steep mixed ridge was then taken fairly direct. The rock steps were ledgy in nature and reasonably sound but the snow varied in consistency, being mostly rather soft. The route had exposed positions above the north face, particularly in its upper reaches.

Descent was by the same route.

PEAK 25 – second ascent

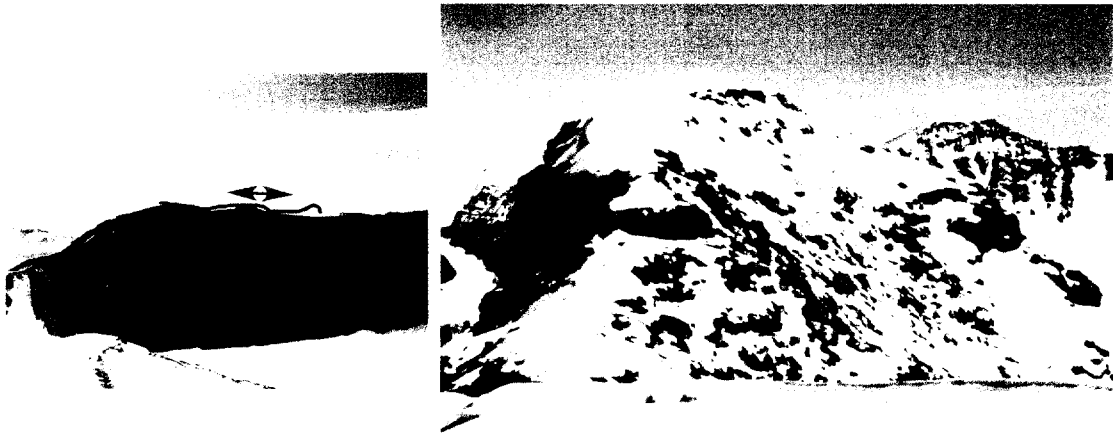
EAST RIDGE 350 m from Camp 9 PD +

FA R Bungay, J Fuller 27/06/01

Surpassing all previous records for late starts, Jeremy and Richard set off for their final attempt on the Condor shaped mountain at 9pm. Having been ‘beaten’ to the first ascent, they planned a new route. This time the idea was to gain the east ridge via a gully on the south side of the mountain and then traverse the narrow rocky ridge to the summit. This rock on the first section of ridge proved to be incredibly loose, however this was successfully crossed and the summit was finally reached.

PEAK 26 ('East Treble Mint Mountain')

2375 METRES



View from the Peak 29 / summit rise (Peak 28 behind)

This peak is the rockiest in its chain, with a steep mixed north face, which would provide a challenge.

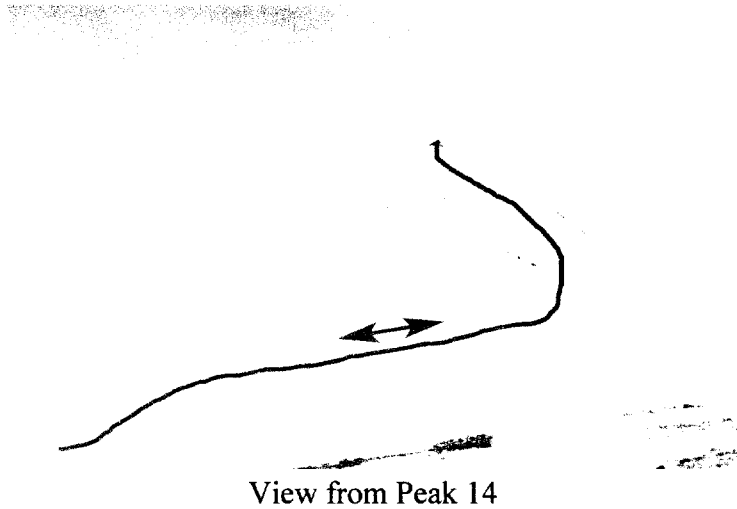
WEST FLANK & RIDGE 475 m from Camp 8 PD +

FA A Kemp, D Newcombe 25/06/01

The mountain was approached from the south. An ascent close to rocks at the far east edge of the snowfield was made on variable snow to a small snowy summit. A narrow ridge was then crossed with difficulty due to unstable snow. A soft snow arête led on to the summit, with an exposed rocky drop down the north face to concentrate the mind.

Descent was by the same route.

PEAK 27 ('First Twin Peak') 2470 METRES



The less prominent of the 'twin peaks'.

SOUTH WEST FLANK 670 m from Camp 7 PD +

FA R Bungay, J Fuller 25/06/01

After a long ski to the southern shoulder of the lower peak, rapid progress was made up a steep snowfield and then on to the summit. Then came an easy descent along a broad ridge towards Peak 28.

PEAK 28 ('Second Twin Peak') 2505 METRES



The summit ridge

This is a notable peak of some size, standing quite isolated and with expansive views.

SOUTH EAST RIDGE 200 m approx from col AD

FA R Bungay, J Fuller 25/06/01

The first real challenge of the mountain was a knife-edge snow ridge with thousand-foot drops on both sides. The snow consisted of a hard crust and then deep powder underneath. This was followed by a steep climb up a ridge mostly composed of huge loose blocks. Once again Richard and Jeremy reached the summit just before midnight. The low sun angle at this time of day provided the most stunning views. Retracing their steps back to the camp took another 3 hours.

PEAK 29 ('Little Hill') 2258 METRES



View from west

Although only a minor peak, it was remote from Camp 8, lying across a large snow plateau for which good kick and glide technique was an advantage. The peak appears as a long shallow ridge rising to its summit at the north end.

NORTH RIDGE 360 m from Camp 8 PD -

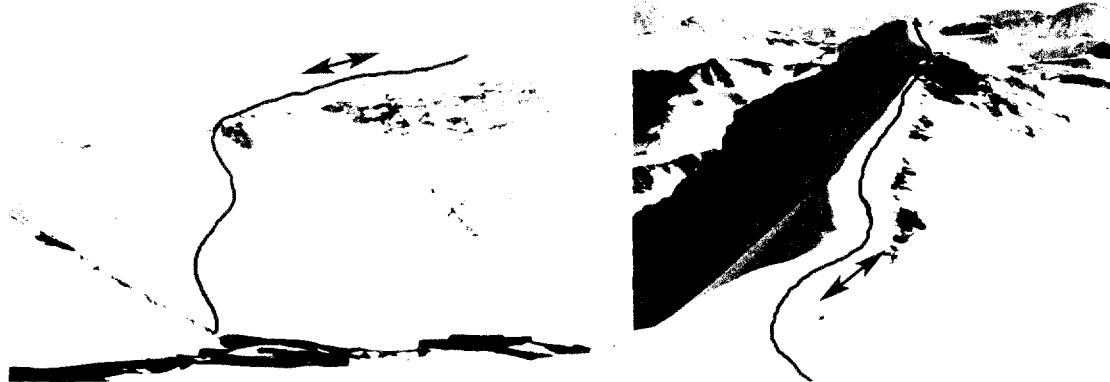
FA M Reason, M Lampard 26/06/01

After crossing the col between Peak 19 and Peak 21, the party continued north east. They ascended to the 'north col' on steepening slopes, avoiding a bergschrund. A finish was made up a loose rock band with loose overlaying snow, to a huge summit plateau.

Technical difficulties revolved around the final loose rock and the shallow snow of the final 30m.

Descent was by the broad south ridge on skis.

PEAK 30 2535 METRES



L hand picture – view from Peak 19 : R hand picture – view from Peak 31

A triangular peak of simple form, mostly with steep snow slopes on its flanks but with some bands of reasonable rock on its east face and north - east faces.

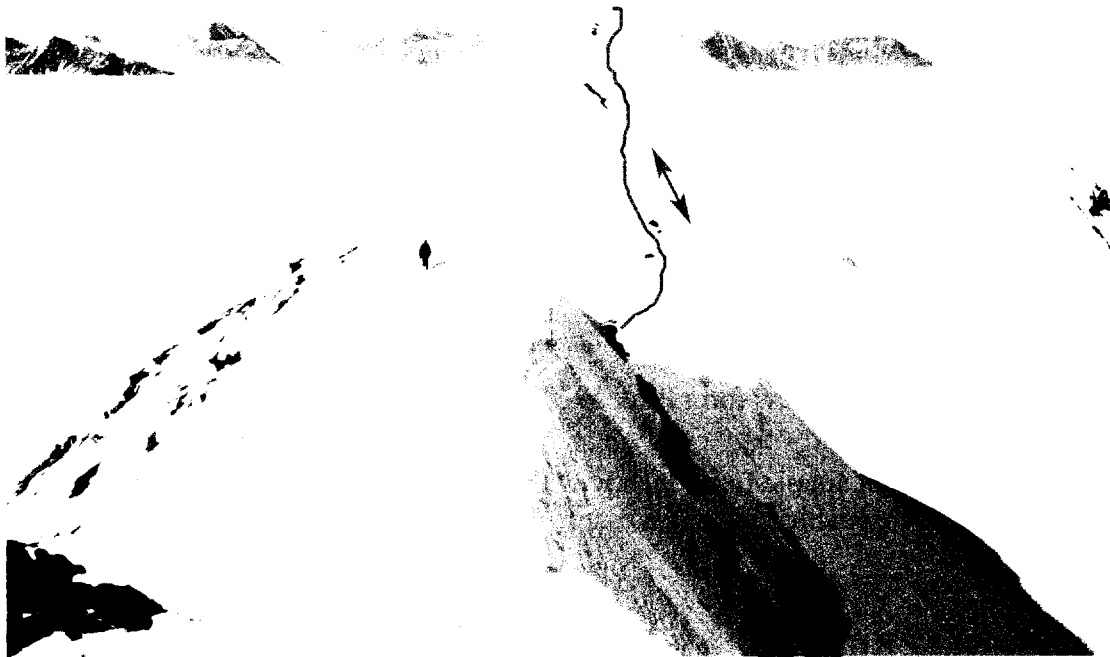
SOUTH WEST RIDGE 650 m from Camp 8 PD

FA D Forster, S Needham 26/06/01

A long ski from Camp 8 reached the broad col between Peaks 19 and 23. Loss of height on the far side was avoided by taking a contouring line on the lower flanks of Peak 23, round into a shallow cwm between Peak 23 and Peak 30. A long rising traverse was taken up the back of the cwm, becoming progressively steeper until it seemed sensible to remove skis. The first bergschrund was easily crossed, then steep snow slopes led up to and over a second big bergschrund which was only discovered when part of its snow bridge collapsed. Once the ridge was gained it provided some narrow delicate sections before broadening as the summit was approached.

The north ridge was descended, with an easy rock step and a short pleasant snow arête, to a broad col before Peak 31. After ascending that peak, a return was made over Peak 30.

PEAK 31 2540 METRES



View from Peak 30

A simple snow peak, the most north - westerly in Martin Knudsen Nunatakker.

SOUTH EAST FLANK 150 m approx. from col F

FA D Forster, S Needham 26/06/01

After descending from Peak 30, an easy walk on mostly firm snow attained the summit, and some expansive views.

PEAK 32 ('North Star Peak') 2430 METRES



View from west

The most northerly peak of the range, and with the longest approach. It is fairly simple in structure. The peak immediately south of it was higher, and not climbed by the group.

WEST FLANK / SOUTH RIDGE 600 m from Camp 8 F

FA A Kemp, D Newcombe 26/06/01

After a very long ski approach, a traverse was made round the unclimbed summit to the south and across a shoulder with very deep powder snow. The risk of avalanche forced a descent into a bowl, then an ascent of the snowfield, crossing a few crevasses to a col. An easy broad ridge, with excellent snow for a change, led to the summit. The summit to the south looked good, but it was not attempted as it would have taken too long.

Descent was by the same route.

PEAK 33 ('Final Mountain') 2216 METRES

For photo see Peak 18

This peak is at the north - westerly end of the long chain of peaks whose opposite end is formed by Peak 24. It is almost entirely ski-able. Only a short section of the traverse from Peak 18 to it was climbed on foot.

SOUTH WEST RIDGE 300 m from Camp 8 F +

FA M Reason, M Lampard 27/06/01

The second ascent of Peak 18 was made, then the ridge was traversed over Peak 33. No technical difficulties were encountered. The north west ridge was descended to a snow bowl leading back to Camp.

EQUIPMENT NOTES

SPECIALIST EQUIPMENT

The following specialist equipment was supplied by Tangent Expeditions.

PULKES. We used four 1.6 metre Snowsled pulks, one of which was borrowed from Constable Pynt airfield to replace a smaller model supplied by Tangent. These coped with the excessive weight we took (180kg per pair in one instance), though the same cannot be said for some of those pulling them! To share the effort we rigged up some traces attached to climbing harnesses so that two could pull. Glide wax was found to be useful at times on the pulks runners.

RIFLE. A rifle was hired for protection against large furry white mammals. The chance of seeing one so far from the sea is fortunately remote. On arrival at Constable Pynt we found that the Tangent – supplied rifle was mislaid somewhere else in Greenland, but the airfield manager – Benny – lent us his.

PERSONAL LOCATOR BEACONS (PLB's). We had two PLB's, a 121.5 handheld MHz Jotron Tron 1E and a much larger 406 MHz Kannad 406M. If activated they would transmit our location via a satellite for at least 24 hours at minus 20 degrees centigrade, and hopefully instigate a rescue.

VHF AIRBAND HANDHELD RADIO. An ICOM 1C-A3E was used. The main purpose of this was to communicate with the inbound Twin Otter pilot to help him identify our whereabouts. It was useful in this respect as although he said he could see us, he was heading towards one of our old camps! In an emergency it could have been used to communicate with the occasional passing airliner for up to ten minutes.

FLARES. Smoke Flares, Parachute Flares and Mini Flares were taken. These could have been used to indicate location or wind direction to the Twin Otter pilot, but in the event were not required. The Mini Flares could also have served some use in discouraging the large furry white mammal, had it appeared.

MAPS / GPS's

Maps of the area are available at 1:250,000 scale. We purchased them from Stanfords. They were surveyed between 1931 and 1934 with some corrections between 1974 and 1977. They give a general idea of the topography of the area. The sheets used were 73 0.3 (Petermanns Bjerg) and 73 0.4 (Hvidbjorns Nunatakker). In all other respects, the maps were useless, having very vague contours and inaccurate spot heights (by between 100 and 200 metres).

Of far more use were aerial photographs, which show incredible detail. The sheets used were 888 D 3290 and 888 D 3292. Additional sheets of some adjoining areas were also taken in case longer ski tours were undertaken, or we ran out of peaks to climb in Martin Knudsen Nunatakker (!). These were not used.

GPS units were essential for determining location and altitude. See the notes on altitude measurement preceding the Peaks Climbed section. The openness of the surroundings generally allowed for fairly accurate measurements. We used a variety of Garmin and Magellan models. Barometric altimeters gave a pressure trend though this seemed of limited use for weather forecasting – the weather was often more stable at times of lower pressure, irrespective of altitude!

SKI EQUIPMENT

Dave, Mark, Michele and Richard used Garmont plastic telemark boots with either Atomic Tele Backcountry, or Black Diamond Aurora skis. The rest of the party used Ski Mountaineering skis with Silvretta bindings. These skis were a mixture brands - Atomic, Tusa and some odd short planks that Jeremy got free with a pair of second hand bindings! Plastic climbing boots were worn for skiing by the ski mountaineers.

The pros and cons of each system largely balanced themselves out. Telemark boots allowed a more natural action on flat or undulating ground and made pulk – pulling more comfortable, but the wider skins used on the ski mountaineering skis allowed steeper uphill slopes to be tackled, saving much wallowing in deep snow. For the downhill bits the snow conditions and, to a degree, the skiing ability of the individual was far more important than the type of ski set up used. The ski mountaineering skis and bindings were heavier than the telemark equivalent, but they could be used with plastic climbing boots, eliminating the need to take a pair of ski boots as well. That said, the telemarkers managed to fit crampons on their ski boots and these were quite adequate on less technical ascents. Hard grip wax, one of each type and Red Klistor were used on the telemark skis.

All four telemarkers used Chili bindings, chosen for their robust construction. Unfortunately in the last couple of days, two people had problems with snapped cables (one person broke both their cables!), and a third person's binding cables also showed signs of wear. Fortunately one spare Riva 3 binding was taken along with other spare parts (e.g. wire, araldite, screws), allowing repairs to be undertaken.

Telescopic ski poles were taken, and in the snow conditions were often useful for climbing as well as skiing. Two people took harschisen in case of icy conditions, but these were only used as additional tent pegs.

MOUNTAINEERING AND CLIMBING EQUIPMENT

BOOTS and CRAMPONS. All members took plastic climbing boots although as mentioned above, telemark boots were found to be suitable for some routes. Simon and Denise also took rock boots in case they discovered a sun – drenched precipice of immaculate rock. They didn't. Articulated crampons were used by all.

ROCK AND ICE GEAR. In general, too many ropes were taken. Usually technical difficulties were not high and descents did not involve any abseils. By the end of the trip two pairs were using 25 metres of 9mm rope to save weight. Ice axes and hammers were taken, but the hammers mainly served for bashing in snow stakes.

These stakes provided the only belays at times, but soft snow over rock - hard ice (or rock!) was frequently encountered, reducing their usefulness. Ice screws were used for belays on Peak 3, apart from that they were most useful for securing skis on icy slopes when leaving them prior to climbing. Pegs were taken but not used, as a concise rack of nuts, Friends and slings sufficed for rock protection, on the occasions that the rock was of sufficient quality.

TENTS

Four tents were taken – a Terranova Quasar, a Terranova Hyperspace, A North Face VE25 and a Mountain Hardwear Trango 2. Apart from the Trango 2, all suffered some minor damage; a pole was damaged by wind on the VE25 and a seam split on the Hyperspace. One of the poles broke on the Quasar and the repair tube that came with the tent was too big. Terranova repaired both their tents free of charge on our return. The VE25 was the roomiest and the Quasar the smallest (though it housed the largest occupants!). In the 24-hour daylight dark tent colours are probably best if you want to pretend its night. Snow valances were added to the Hyperspace, which made anchoring the tent quicker and kept spindrift out of the bell ends – a problem with the Trango 2. On the other hand the Trango 2 gave better ventilation.

Snow pegs were taken to secure the tents. In the deep soft snow that was usually encountered these initially had little holding power, and were supplemented with axes and ski sticks. Once the ground had been stamped down a bit and had re - frozen overnight they gave solid anchors however. One party used stuff sacs filled with snow and buried. These proved so secure that it was hard to de-pitch the tent at times! Double walls dug around the tents to prevent burial in high winds seemed to be effective in accumulating snowdrifts, but the more circular plan of the VE25 did not seem to need this protection. Pits dug in one or both bell ends of the tents made putting boots on easier, and gave more room for cooking.

OTHER ITEMS

Everyone used Karrimats as well as Thermarests for insulation, and down sleeping bags. Snow shovels were extremely useful for building walls and loo pits, though a frying pan sufficed for some. In hard snow, snow saws were used to good effect. Various MSR stoves were taken - see the Food Section. The variety of cooking utensils taken varied according to the culinary aspirations of each pair (and their tolerance to surplus weight). Measuring jugs and spatulas were handy and collapsible washing up bowls had more than one use. Flasks, though relatively heavy, helped conserve fuel, though in the end we had more than enough of this. Black bin liners were useful for melting snow and marking out a slalom course on the 'piste' at Camp 6. Radios allowed communication when the party became split up, with the batteries recharged using the solar panel (see the 'Filming The Expedition' section for details of this).

CLOTHING AND PERSONAL KIT

The clothing taken was pretty much what you'd wear in Scotland in winter. Duvet jackets were very useful indeed. Shorts may also have been useful on odd occasions, though there was rarely a time when there wasn't at least a gentle breeze. It goes without saying that hats and good sunglasses together with strong sun block were essential.

Apart from the main first aid kit (see Medical Section), personal first aid kits were also taken.

All but Jeremy had stills cameras. Three SLR's and four compacts were taken. One of the SLR's, a brand new manual model specifically purchased because it was less likely to be affected by the cold, broke quite early on. One of the compacts also stopped working. Neither of these breakages were definitely caused by temperature, but it is essential to take a spare battery and keep the camera as warm as possible. Attempts at fixing the compact during the long storm provided some mild amusements (and electric shocks) but failed to fix the problem. Exposure compensation for snowy conditions needs to be applied with care – 2 stops produced over exposed results with a Canon SLR, whereas no compensation (by accident) gave only marginally under-exposed shots on a Minolta SLR. Jeremy took a very compact Sony Digital Camcorder, which also had stills capability - see the separate section on his filming project.

Binoculars helped in spying out routes, though allowance has to be made for foreshortening. Radios were taken so that the different pairs could keep in touch. Jeremy took a solar panel to recharge the batteries for both these and the camcorder.

FOOD NOTES

Planning the food was left to each pair although various menu suggestions were passed around. We felt it easier to cater like this, as there was a wide range of tastes and preferences among the group. This probably increased the total weight of the expedition however.

Unfortunately the Foot & Mouth crisis in the UK made exporting meat or dairy products rather more difficult and caused last minute rethinks to replace high calorie and tasty items like butter, hard cheese, paté and salami with rather less appetising items.

Virtually all the expedition food was freighted in advance to Iceland. Fortunately we had a couple of hours stop in Akureyri en route to Greenland, and we were able to supplement some of the missing items in a local supermarket.

Generally everybody over-catered. This was mainly due to the climate being less harsh than we had expected; we estimated a daily calorific requirement of 4000/4500 but we didn't burn as many calories as expected.

COOKING

To save fuel various methods were employed to melt snow. Pans of snow left inside a closed tent or underneath the fly for the day seemed to be the most successful, however bin bags left in the sun on pulks or rocks also worked. A side effect of melting the snow was that a drink and meal were soon prepared after a day out on the hill. *(Large water tight bottles very useful i.e. Nalgene)*

Each pair used various models of MSR stoves (with full spare kits). The one stove without a 'shaker jet' suffered continual blockages. We budgeted on using half a litre of fuel per pair per day, which amounted to 50 litres in total, but we only used just over half this amount. This was probably due to switching from cooking outside to in the tent after the first couple of days and considerable efforts to melt snow using just solar energy.

A quick poll of the group reported the following:

Should have taken more

Egg Powder, Sausage mix, Burger mix, Cheese, Couscous

Took too much

Chocolate, pasta, biscuits, milk powder, margarine, soup, rice

Didn't take but should have

Mustard powder, Tomato sauce

Liked

Bannock bread, Dried egg, Hard cheese, Fudge, Custard, Burger mix, Nut rissoles (but messy)

Didn't Like

Large Soya chunks – take too long to re-hydrate then taste like sponges

Beanfeast – edible but making your own mix was generally better

Soya Burgers

TYPICAL MENU

Breakfast (on hill days)

Crunch cereal or porridge (with jam or golden syrup)

Tea

Fruit drink

Biscuits

Breakfast (Days off)

Omelette – cheese, salami

Pancake – with golden syrup/jam

Bannock Bread

Lunch (on hill days)

Chocolate/Fudge bars

Cereal crunch bars (note: chewy cereal bars go very hard when cold)

Nuts

Dried Fruit

Cheese, hard or tube

Biscuits

Salami

Lunch (Days off)

Pancake

Soup

Pasta

Bannock Bread

Main Meal

Carbohydrate: Rice, Pasta, Couscous or Smash

Vitamin/Protein: Beanfeasts (not too popular but edible)

Soya chunks

Burger mix

Dried Vegetables (Tomatoes, Onion, Pepper, Mixed veg., Aubergine, Mushrooms)

Nuts

Salami

Tinned: corned beef, tuna, salmon and sardines

Deserts:

Dried fruit and custard

Semolina

Crunch pudding

Biscuits and Jam

Useful flavourings:

Chilli powder

Shepherds Pie mix

Stock cubes

Soup

Garlic powder

Golden syrup in squeeze bottle

Jam in squeeze bottle

FILMING THE EXPEDITION

As a personal project Jeremy undertook the filming of the trip. Things started badly when the camcorder he tried to buy 'online' failed to materialise, then got progressively worse when he found out that the Sony DCR PC5 camcorder, which he finally managed to acquire (from a shop), could not be powered by externally mounted alkaline batteries. Sony have introduced a feature where if you don't use Sony batteries the camcorder simply powers up, tells you that you are using the wrong battery, then powers down again. Hence the hugely over budget powering of the camcorder project began.

After much research a £660 military grade 'Unisolar' folding 30-Watt solar panel (2.2Kgs) was acquired. Then with only a few weeks to go before the team's equipment was due to be shipped to Greenland it was decided to introduce a small lead acid battery (3.5 AH, 2Kgs) into the equation in order to provide a power reservoir. Luckily R&D Solutions (a.k.a. Richard Bungay) helped sponsor this part of the project by putting together a charging circuit and battery unit for only the cost of the materials (~£60). Finally there was more expenditure on a Sony DC charger for S-series batteries at the bargain price of £120!

In Greenland the camcorder performed very well. It was small enough to be easily carried and provided very good quality video images as well as capturing over 400 still images on the removable memory card.

The camcorder was kept as warm as possible however due to the cold there was a noticeable reduction in the runtime of batteries. It was not uncommon to only obtain 10minutes of filming from a battery, which was meant to last 60-70 minutes at normal operating temperatures.

The solar panel proved to be complete overkill in terms of the amount of power it generated in the very bright conditions we experienced in Greenland. For example, it proved to be feasible to film in cloudy conditions using only the solar panel in combination with the DC-charger as the only power supply. In retrospect the battery and charging circuit in combination with a 5 or 10-Watt flexible solar panel (the type used on yachts (~£90 to £140)) would have been adequate.

The entire filming project cost almost £2000, however this expenditure could have been dramatically reduced if Sony had not locked out all non-Sony batteries or if a lower powered (cheaper) solar panel had been selected.

MEDICAL

We took one full first aid kit for the whole group. Individuals also took personal kits containing “consumable” items such as plasters, blister kits, athletes foot cream etc. As one of the pairs intended to go off ski-touring on their own they took a more comprehensive personal first aid kit. All members had attended first aid courses at various times.

The first aid kit included both drugs and wound dressings etc. Only oral drugs/pain killers were taken as no members of the expedition had the experience to administer intravenous/intra-muscular injections. Most of the drugs had to be obtained on private prescriptions as they are not available over the counter.

Item	Usage
<i>Pain Killers</i>	
Codeine phosphate	Analgesic to treat pain
Voltarol	Non-steroidal anti-inflammatory drug
Paracetamol	Used to treat pain and headaches
	All the above three can be taken together to treat severe pain
Amethocaine Eye drops	Snow blindness
<i>Antibiotics/infections</i>	
Ciproxin	Bacterial infections – Chest, urinary and intestinal
Amoxycillin	General purpose antibiotic
Erythromycin	General purpose antibiotic where known allergy to penicillin
Flucloxacillin	Soft tissue & skin infections
<i>Allergies</i>	
Piriton	Skin allergies & reactions to food etc.
<i>Sickness/Diarrhoea</i>	
Buccastem	Used to treat nausea & vomiting
Dioralyte	Diarrhoea and loss of body fluids
<i>Dressings</i>	
Various bandages	Dressing open wounds/minor fractures
Melolin/Gauzes	Dressing wounds/burns
Finger dressings	Finger wounds
Steri-Strips	Closing large cuts
Antiseptic wipes	Cleaning wounds
Micropore tape	Securing dressings
Elastoplast	Small wounds
Foam padding	Blisters and sores
Blister kit	Blisters
Elastoplast strapping	Strapping strains etc

<i>Other</i>	
Foot cream	Athletes foot
Anbesol	Mouth ulcers
Scissors	
Scalpel blades	
Safety pins	
Needles	

Luckily no items were used from the main first aid kit during the month away. Items from personal first aid kits were used to treat blisters from pulking, Athletes Foot and split fingers from the cold.

WEATHER AND TEMPERATURE OBSERVATIONS

DATE	ALT.	TEMP OUTSIDE (° C)		TEMP IN TENT (° C)		WEATHER
		MIN	MAX	MIN	MAX	
3rd	2073m	-15.0	-6.7			Low cloud and light snow
4th	2073m	-12.7	-7.1	-4.7	22.8	Sunny but some cloud - very windy
5th	1789m	11.2		-4.5		Sunny, little cloud
6th	1706m					Sunny AM. Cloudy with sunny intervals PM, light winds
7th	1559m					Sunny with some wind on glacier
8th	1559m	-14.9	5.8	-4.0	41.9	Sunny, more cloud late PM, wind becoming quite strong
9th	1559m	-12.5	3.8	-0.9	37.7	Sunny, light winds
10th	1559m	-13.2	2.8	-1.2	36.2	Sunny, some high cloud, very little wind
11th	1539m	-8.1		-0.9	27.7	Sunny, wind became much stronger later in day
12th	1539m	-9.4	3.4	-2.3	39.5	Some cloud, quite windy
13th	1964m	-14.6		-7.6	25.0	Sunny but windy, clouded over at 20.30 with light snow
14th	1964m	-11.0	-4.1	-0.2	23.0	Low cloud and windy, light snow
15th	1964m	-7.2	1.5	1.2	25.8	Low cloud but less windy, light snow
16th	1964m					Low cloud, gusty wind, light snow
17th	1964m	-3.2	0.7	5.6	22.3	Low cloud, no wind, light snow
18th	1964m	-6.4	6.3	1.5	29.9	Low cloud, no wind, light snow cleared later
19th	1964m	-14.4	6.2	-2.2	38.1	Cloudy, very light snow AM, sunny & windless PM
20th	1964m	13.8	2.5	0.6	36.5	Sunny - warm in sun and not much wind
21st	1964m	-9.5	2.6	2.5	27.6	Sunny, a little cloud at first then clear. Windier later
22nd	1900m	-16.0		-2.9		Sunny, no wind
23rd	1900m	-7.9	8.3	-0.8	38.5	Sunny, some cloud, light wind, warm
24th	1900m	-11.6	3.0	-3.6	43.2	Sunny start, light wind, layer of high cloud & windier PM
25th	1900m	-8.4	4.2	-1.9	30.1	Sunny, very light breeze
26th	1900m	-21.6	0.7	-1.6	38.6	Sunny, very light breeze
27th	2012m	-9.7		2.6		Sunny, some high cloud, breezy
28th	2012m					Sunny, cold breeze

Note : Temperature inside tent shown to illustrate the perils of having a lie-in (although Jeremy seemed immune to the heat!)

PERMIT REQUIREMENTS

Our permits were organised by Tangent Expeditions, however the Danish Polar Authority web site has all the relevant information and forms available. On the DPC website (dpc.dk) go to Services/Expedition planner /Paperwork.

Below is an overview of the paperwork required.

Application for Sport Expedition
Radio Licence
Firearm Licence
Insurance statement (see section on Insurance)

The application form must be completed and submitted to the Danish Polar Centre by the leader of any expedition operating in Greenland

Expeditions in the National Park in North and East Greenland must submit the completed application form no later than 3 months prior to planned activity in the National Park.

The DPC will then issue a permit provided:-

- a. that all required material (i.e. radio license, insurance statement, and firearm permit etc.) is submitted to the authorities within the stated deadlines, and
- b. that the planned project or expedition does not involve obvious hazards for the participants or third party, and
- c. that the planned or expedition project does not interfere with or counteract public interests in Greenland

the Danish Polar Centre will issue an official permit given on certain general conditions and in some cases subject to fulfilment of a number of additional specific requirements.

Visitors to the National Park must be prepared to prove possession of a valid entry permit before they travel to any destination within the National Park.

EXPEDITION FINANCES

The fees paid to Tangent principally covered the following:

Scheduled flights from Stansted to Keflavik, and from Reykjavik to Akureyri.

Charter flight from Akureyri to Constable Pynt (Greenland).

Twin Otter charter from Constable Pynt to Martin Knudsen Nunatakker.

Freight costs.

Permits

Specialist equipment hire

Accommodation in Iceland

Fuel

Breakdown of costs :

Tangent Expeditions Fees (Logistics) (8*£3200)	£25,600
Insurance (8*£200)	£1,600
Food	£1,120
Surplus freight charges, UK to Iceland	£350
Transport of freight to Tangent in Cumbria	£80
Medical kit	£65
Fuel containers	£27
Local airport taxis in Reykjavik	£25
Excess Baggage on return flight	£336
Total Expedition Cost	£29,203

Funded by :

Personal contributions	£27,863
British Mountaineering Council Grant	£700
Mount Everest Foundation Grant	£640

USEFUL ADDRESSES

Tangent Expeditions - Logistics packages & commercial expeditions

3 Millbeck
New Hutton
Kendal
Cumbria LA8 0BD
Tel 01539 737757
www.tangent-expeditions.co.uk

Mount Everest Foundation - Expedition advice (through the RGS) & grants

Hon. Secretary
W H Ruthven
Gowrie
Cardwell Close
Warton
Preston PR4 1SH
Tel 01772 635346
www.mef.org.uk

British Mountaineering Council – Expedition advice & grants

177-179 Burton Road
Manchester
M20 2BB
Tel 0161 445 4747
www.thebmc.co.uk

Danish Polar Centre – Permits and general advice on Greenland expeditions

Strandgade 100 H
DK-1401
Copenhagen K
Denmark
Tel +45 3288 0100
www.dpc.dk

Kart & Matrikelstyrelsen – Aerial photographs

Rentemestervej 8
DK – 2400
Copenhagen NV
Denmark
Tel +45 35 87 50 50
www.km.dk

Stanfords - Maps

12-14 Long Acre
Covent Garden
London WC2E 9LP
Tel 020 7836 1321
www.stanfords.co.uk

Braemar Mountain Sports – Nordic & Ski Mountaineering equipment
Invercauld Road
Braemar
AB35 5YP
Tel 013397 41242
www.freeheeldirect.com

Needle Sports – Specialist equipment & Greenland experience
56 Main Street
Keswick
Cumbria CA12 5JS
Tel 017687 72227
www.needlesports.com

Base Camp Ilkley - Nordic / Ski Mountaineering gear. Greenland articles on website
113 Leeds Road
Ilkley
West Yorks LS29 8DH
www.basecampilkley.co.uk

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