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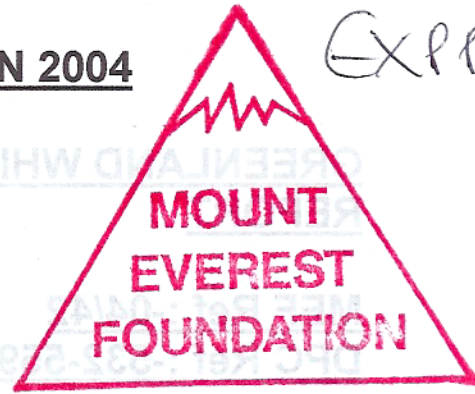
GREENLAND WHITE SEA EXPEDITION 2004

Exp 19

REPORT

MEF Ref :-04/42

DPC Ref :-532-559



Elizebeth Victory in Mikis Fjord

18	Distribution List
18	Maps & Aerial Photos
17	Books
17	Websites
17	Bibliography-
17	Address List
16	Accounts
16	Appendices-
16	Acknowledgements
16	Conclusion
15	Expedition Diary
15	Photography
9	Environmental Impact Assessment
9	Medical Arrangements
9	Notes of Itinerary

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Expedition Aims

The aim of the expedition was to sail, by yacht, from Portsmouth to Kangerdlugssuaq Fjord on the east coast of Greenland (68 degrees north, 32 degrees west), and then to climb unclimbed peaks.

Author

Peter Watson peterwatson@ktdinternet.com
The Bield, Ingleton, Carnforth, LA6 3DE

Contents

	<u>Page</u>
Summary	3
Introduction	3
Area Map	4
Route Map	5
Expedition Members	6
Administration & Logistics:-	6
Permits	6
Fund-raising	6
Finances	7
Insurance	7
Travel & Transport	7
Communications	7
Risks & Hazards	7
Medical Arrangements	8
Environmental Impact Assessment	9
Photography	9
Expedition Diary	9
Conclusion	15
Acknowledgements	16
Appendices:-	16
Accounts	16
Address List	17
Bibliography:-	17
Websites	17
Books	17
Maps & Aerial Photos	18
Distribution List	18

Summary

The expedition left Portsmouth in May 2004 by yacht and reached northern Iceland in late July. We set off across the Denmark Straits 30 July and reached on Greenland on 2nd August 2004.

Kangerdlugssuaq Fjord proved to be too dangerous because of sea ice, but we were able to enter nearby Mikis Fjord. Climbing opportunities were limited by bad weather, but the team attempted two peaks. The first attempt was abandoned not far below the summit, the second was successful.

Introduction

Ron, Steve, Luke and I met in the late 1970s while playing rugby for Cheshunt RFC. We 'diversified' into mountaineering & sailing, collecting promising youngsters Stewart, Rob and Tim along the way. The climbing & sailing trips listed below in the expedition members' 'CVs' have been undertaken by various combinations of the people who subsequently made up our Greenland team.

The idea for the expedition came from Ron, who was looking for a project that involved both sailing & mountaineering. Chris Bonington & Robin Knox-Johnson's account of their 1991 expedition to Kangerdlugssuaq Fjord, in the yacht Suhaili, provided the inspiration.

The motivation for Ron was to sail in waters rarely, if ever, visited by yacht. For the climbers it was the opportunity to climb an unclimbed mountain. In researching the trip, it became apparent that previous expeditions to the general area had tended to operate inland. We found no evidence of expeditions to the mountains near the coast. The map reprinted in this report does show marked some anchorages, a sign of some human activity. We also established that the Uttental Sound area, to the east of Kangerdlugssuaq Fjord, has been visited by parties of geologists. Their interest has primarily been in the Skaergaard Intrusion, an ancient geological feature. More recently, their interest has been in traces of gold.

The 1991 expedition landed at the southern end of the Sidegletscher, and passed through it on their way into the Lemon Mtns. Chris Bonington kindly gave us photos he had taken, showing unclimbed peaks lining the glacier. We chose the Sidegletscher as our objective. If we could make it through the ice floes, then we would be climbing comparatively close to our boat. This would reduce logistical effort and increase the margin of safety.

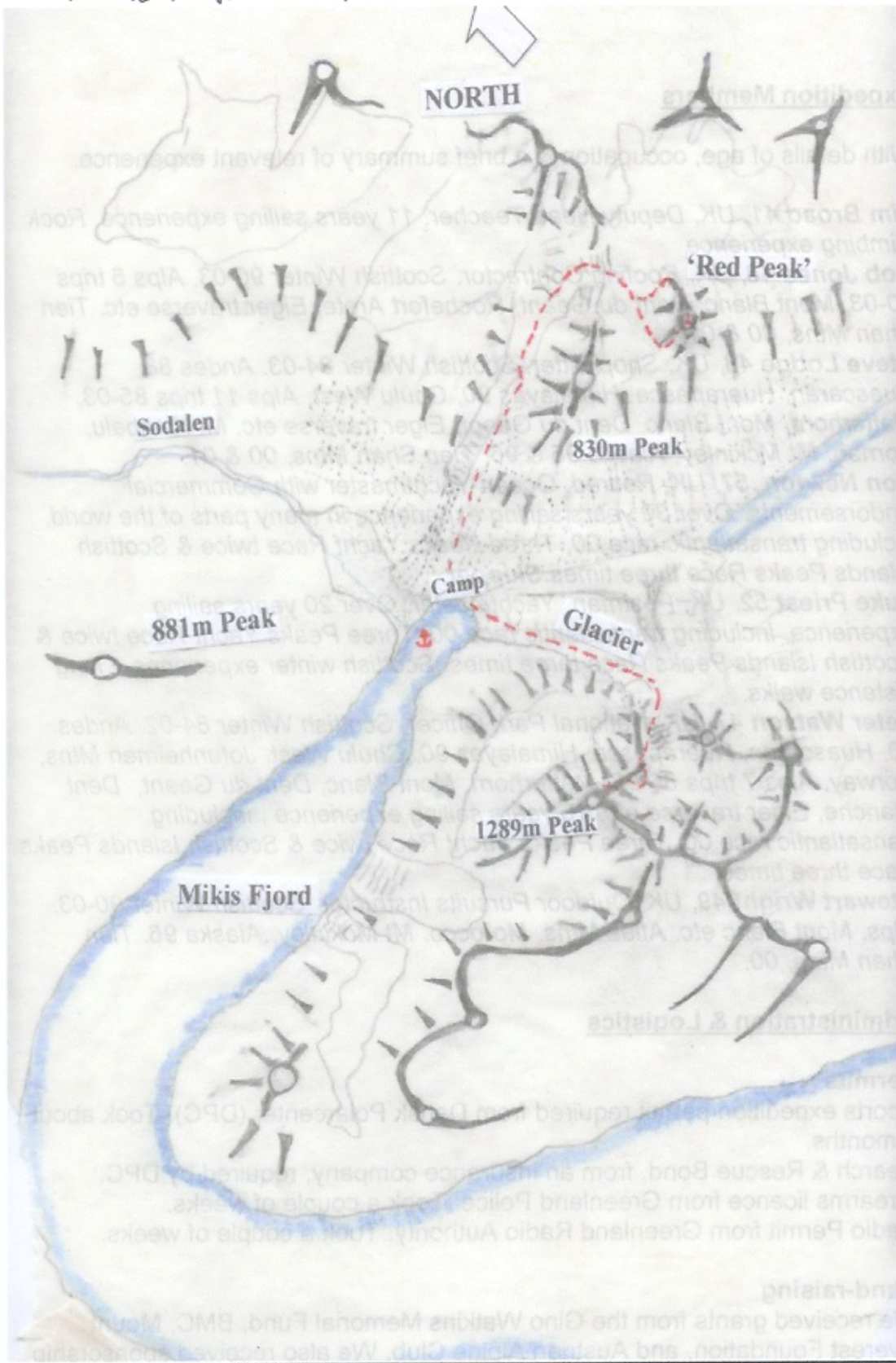
However, sea ice records indicated that access to the upper Kangerdlugssuaq Fjord would be difficult, and even reaching the coast may be impossible. The best chance is in August, but we were advised that we really needed to be south of Icelandic waters by the end of August, before bad weather sets in for the winter. This left a fairly narrow window of opportunity, with plenty of scope for failure.

Plan B was to head for Mikis Fjord, immediately to the east of Kangerdlugssuaq. Unlike its neighbour, it is not fed by any major glaciers and is more likely to be accessible. From the head of Mikis, it is possible to portage to the Sidegletscher, via the Fredericksborg Glacier, a distance of about 20 miles. Failing that, in our grant application, we identified the coastal ranges as 'Plan C'.

Area Map :- 1:250,000



ROUTE MAP 1:45,000



Expedition Members

With details of age, occupation & a brief summary of relevant experience.

Tim Broad 41, UK, Deputy Head Teacher. 11 years sailing experience. Rock climbing experience

Rob Jones 48, UK, Roofing Contractor. Scottish Winter 90-03. Alps 5 trips 90-03, Mont Blanc, Dent du Geant, Rochefort Arete, Eiger traverse etc. Tien Shan Mtns, 00 & 01.

Steve Lodge 48, UK, Shop Fitter. Scottish Winter 84-03. Andes 88, Huascarán, Huarapasca. Himalayas 90, Chulu West. Alps 11 trips 85-03, Matterhorn, Mont Blanc, Dent du Geant, Eiger traverse etc. Mt Kinabalu, Borneo. Mt McKinley, Alaska 95 & 96. Tien Shan Mtns, 00 & 01.

Ron Newton 57, UK, Retired. Ocean Yachtmaster with Commercial Endorsements. Over 30 years sailing experience in many parts of the world, including transatlantic race 00, Three Peaks Yacht Race twice & Scottish Islands Peaks Race three times. **Skipper.**

Luke Priest 52, UK, Postman. Yachtmaster. Over 20 years sailing experience, including transatlantic race 00, Three Peaks Yacht Race twice & Scottish Islands Peaks Race three times. Scottish winter experience + long distance walks.

Peter Watson 47, UK, National Park Officer. Scottish Winter 84-02. Andes 88, Huascarán, Huarapasca. Himalayas 90, Chulu West. Jotunheimen Mtns, Norway. Alps 7 trips 86-03, Matterhorn, Mont Blanc, Dent du Geant, Dent Blanche, Eiger traverse etc. 15 years sailing experience, including transatlantic race 00, Three Peaks Yacht Race twice & Scottish Islands Peaks Race three times.

Stewart Wright 49, UK, Outdoor Pursuits Instructor. Scottish Winter 90-03. Alps, Mont Blanc etc. Atlas Mtns, Morocco. Mt McKinley, Alaska 96. Tien Shan Mtns, 00.

Administration & Logistics

Permits

Sports expedition permit required from Dansk Polarcenter (DPC). Took about 3 months.

Search & Rescue Bond, from an insurance company, required by DPC.

Firearms licence from Greenland Police. Took a couple of weeks.

Radio Permit from Greenland Radio Authority. Took a couple of weeks.

Fund-raising

We received grants from the Gino Watkins Memorial Fund, BMC, Mount Everest Foundation, and Austrian Alpine Club. We also received sponsorship from Hertford Shelving and others. These were firms with which a team member already had a personal relationship. We have never had much success 'cold calling' for sponsorship for trips.

The rest of our costs were split between the team.

North to the Night by Alvah Simon. By Mainstream Publishing. An account of a winter spent frozen in Greenland sea ice in a small yacht. Don't do it!

Maps & Aerial Photos

We used Geodaetisk Institut 1982 series 1:250,000. We found these useful for general navigation, but quite inaccurate in respect of mountains and ridges. Available from Stanfords.

We found aerial photos at 1:150,000 more useful, although shadows can obscure some features. Available from Tangent Expeditions.

Distribution List

Gino Watkins Foundation, BMC, MEF, Austrian Alpine Club, team members and Dansk Polarcenter.



Peak 1289 metres from the north. Our route followed the left hand skyline ridge.

Finances

For expedition accounts, we used a special bank account that we established some years ago for the purpose. Steve managed the account, paying out for expenses and organising team contributions to cover debts as necessary.

Insurance

It was a condition of our expedition permit that we obtain a Search & Rescue Bond. We approached the companies we have used before for expedition insurance, including the BMC's insurers, but all refused to cover us, because of the combined sailing/climbing elements.

For a time it looked as if this might be an insuperable obstacle. However, on the DPC's recommendation I contacted If P&C, a Danish insurance company, who readily provided the necessary cover, for c£400 per head. This covered the team while onshore in Greenland.

The yacht was separately covered against loss.

We made no claims.

Travel & Transport

For future reference:- it was apparent that a minerals company were carrying out exploratory operations in the general area. From high on 'Mikis Peak', we could see that they had formed a rough airstrip on an area of flat glacial gravel in Sodalen, to the north. This could be of use by other climbing teams.

Communications

The Elizebeth Victory was equipped with VHF radio for ship to shore communications. This was used to contact harbour masters etc on entry to Icelandic ports, and for local weather forecasts when in Icelandic coastal waters. It could not be used for long distance communications when in Greenland.

For this we carried two satellite phones, one on the yacht, and one carried by the climbers on shore. These were used to communicate with the Greenland Authorities, to report our arrival & departure. They were also used for communications with England. Their greatest benefit was in acquiring localised long range weather forecasts prior to crossings of the Denmark Straits and other long open water passages.

Satellite phone costs:- £1k deposit per phone, £1 per day hire charges per phone, £3 per minute call charges.

We also carried two hand-held VHF radios, on shore, for line of sight communications between climbers, camp & yacht.

We were equipped with two EPIRBs, one on shore, one on the yacht, for emergency use. This was a requirement of the expedition permit.

Risks & Hazards

Sea ice, crevasses, loose rock & Polar Bears

Sea ice – while crossing the Denmark Straits, we saw a number of large icebergs. Given the 24 hour daylight, these were easily spotted. They also showed up clearly on radar. However, what isn't apparent until you get close to them is that they are accompanied by a floating debris field of 'growlers'

and other chunks of ice that have broken off them. These generally extend in a line downwind. They are often low lying and difficult to spot until close. Once we got within about five miles of the Greenland coast, we entered a belt of scattered sea ice. This mainly comprised chunks of ice the size of cars, and smaller. They were thinly spread and we were able to weave through them quite easily. However, they were made of hard ice and were more than capable of holing a yacht. They were low lying, often transparent and required constant vigilance to avoid.

Once we entered Kangerdlugssuaq Fjord, the size and quantity of sea ice increase rapidly. In a flat calm it would have been possible to have manoeuvred slowly between bergs and got further up the fjord than we did. However, there was a considerable swell running when we arrived, which made the operation much more hazardous. Bergs were plunging up & down, and rolling. The bigger ones caused a considerable backwash. We had to keep the revs up to manoeuvre in the swell and were consequently moving too fast to easily pick the best line through the smaller ice debris. As the amount of sea ice increased it became more dangerous. In manoeuvring to avoid the bigger ice floes we increased the risk of swerving into smaller ones. While we had put a considerable amount of time into researching the pattern & distribution of sea ice in this area, I for one had not anticipated how much difference sea state might make to safety.

Crevasses – at sea level the glaciers were bare of snow and crevasses were easily seen & avoided. However, above 500 metres they were covered in soft snow. This was sufficiently deep to hide them but not firm enough to bear weight. Consequently, despite proceeding cautiously, on perhaps half a dozen occasions, climbers went through into crevasses. We were roped for glacier crossings and these were all minor incidents. Nonetheless, there was a clear hazard. Moving carefully and probing for crevasses slowed us down considerably in some areas.

Loose Rock – the rock in the Mikis area was generally poor. It was badly fractured and very loose. Apparently sound buttresses crumbled when breathed on. Slopes were covered in unstable scree. Gullies were particularly dangerous. Rocks were easily dislodged by feet & ropes. Holds needed to be pinched in place rather than pulled on. I hit Stewart with a boulder when leading a particularly loose gully, unfortunately he wasn't filming at the time!

Polar Bears – the DPC provide a lot of information on their website about Polar Bear behaviour & deterrents. We expected bears to be potentially a serious hazard. We took a rifle, as required by our permit. We also carried mini-flares as a deterrent. We carried the rifle while at low level, but left it at the foot of climbs. Other than the glaciers, the terrain around Mikis Fjord was bare rock & scree and bears should have stood out. However, we saw no bears, nor any sign of them.

Medical Arrangements

None of the team had a medical background, but five of us were qualified first aiders. Stewart was the most experienced in expedition first aid and took charge of assembling equipment and drugs. We took an emergency kit, which

included a folding stretcher, splints etc. We also took a basic drug kit. These remained at camp. On the mountains we each carried small personal first aid kits.

No-one suffered any illness, other than sea sickness, and we had no injuries.

Environmental Impact Assessment

The expedition was planned to minimise any impact on what was assumed to be a pristine natural environment. Use of a yacht made it comparatively easy to handle waste to minimise any pollution. All waste was bagged and shipped back to Iceland for disposal. Human waste was disposed of at sea. Gas was used for cooking. All food was brought in on the yacht. Other than water, no local resources were consumed.

However, it was apparent that, even in this remote area, pollution is building up. Along the shoreline, we found a significant amount of shredded plastic. Typically this comprised strands of polypropylene rope, presumably from fishing nets, together with other plastic fragments, that had been washed into the fjord from the open sea. We collected & disposed of some of this during our stay, but such rubbish must presumably line the whole coast.

Photography

Both film & digital formats were used. No special equipment or film used. The conditions experienced were typical of those found in mountains, ranging from mild & wet to dazzling glare. We did not experience very low temperatures. Dampness was the main problem encountered, although only our digital camera actually failed, and that was temporarily.

We each carried a still camera for personal use, the digital camera was used to produce a DVD record of the expedition, expertly recorded & produced by Stewart Wright.

Expedition Diary

The expedition officially started on 19 May 2004, when Ron & Luke set sail from Fareham harbour, Portsmouth. They sailed around Land's End, up the east coast of Ireland, and the west coast of Scotland, to the Faroe Islands. From there, weather conditions pushed them around to the east coast of Iceland, where they made landfall at Seydisfjordur on 15 July. They had invaluable assistance from volunteers on some legs, Rod Blake, Les Allen, Grace Newton and Bill Baird.

The voyage to Iceland, over 2,000 miles, is well covered in an account written by Luke and available separately to this report.

This report covers the period 24 July to 13 August, when the whole team was together.

The rest of the team flew in to Akureyri, via Keflavik on 23 July, before joining the Elizebeth Victory in Dalvik, in the middle of Iceland's north coast on 24 July.

25 July

Left Dalvik for Isafjordur on the north west tip of Iceland, our jumping off spot for the crossing to Greenland. Good sailing, however we stopped at Siglufjordur, after 30 miles, to relieve an outbreak of sea sickness.

26 July

Set off from Siglufjordur for Isafjordur, a distance of approximately 115 nautical miles. Contrary to the forecast we were met by winds which moved around to head on and strengthened to gale force during the afternoon. We tried to find shelter behind a headland, but could make no progress towards it. The north coast seems to be a continuous series of cliffs and there was no where to go, other than to turn around and run before the wind, back to Siglufjordur. We arrived back where we started after 80 miles and 12 hours of 'interesting' sailing.

27 July

Spent a gale bound day in Siglufjordur waiting for the weather to change.

28 July

Left at midday, timed to coincide with the best of the weather over the route. Passed the impressive headland of Hornstradir during the night.

29 July

Weather deteriorated with head winds strengthening, but we finally reached Isafjordur at 2 pm. 115 miles in approx 26 hours, an average of 4.5 knots, fairly typical for the trip.

30 July

After studying detailed weather forecasts, storing food & fuel and collecting our rifle from the police, we left at 8.30 pm. Next stop Greenland.

31 July

At 1 am part way across the Denmark Strait disaster struck. The boom snapped in two, near to its junction with the mast. Without the mainsail we could not go on. We returned to Isafjordur on the engine, arriving at 8.30 am. It felt like, after many months of effort, the expedition was over before we'd even seen our first iceberg. We assumed that the time it would take to repair or replace the boom would rule out going further.

However, after we had dismantled the boom and got it up on the quay side to inspect, our gloom was interrupted by an Icelandic sailor. In a gesture typical of the helpfulness we found in Iceland, he immediately said he would get it fixed, even though we were now in the middle of a Bank Holiday weekend. He contacted a friend with a nearby engineering workshop, and by 6.30 pm, after two hours sleep, we were able to turn around and head out back to sea, with a shorter but still functional boom.

1 August

At 5 am, on a glorious sunny morning, we sighted our first iceberg. Spirits soared as continued on past whales, dolphins and more icebergs.

At 10.30 pm we sighted Greenland from 65 miles out, a jagged mountainous coast raised above the horizon by refraction.

2 August

We closed on the coast which grew increasingly forbidding as the view of it improved. Steep mountains and glaciers right down to the sea, clearly nowhere to land, unless we could get up a fjord. Scattered sea ice formed a band about five miles out from the coast. We entered Kangerdlugssuaq Fjord, and weaved our way up it. However, close to Kraemer Island, as noted in Hazards section above, ice conditions and sea state eventually proved to be too dangerous to proceed. 15 miles from our intended landing spot conditions were already dangerous. Ahead, the fjord narrowed considerably and the density of ice consequently increased rapidly. The way on was too dangerous in these conditions.

We turned around and headed for Mikis Fjord 10 miles to the east, Plan B. The entrance to Mikis Fjord was guarded by towering cliffs. These amplified the sound of waves breaking on their walls to create an unearthly roaring sound as we passed through the narrow entrance. We motored to the far end of the Fjord, approximately 10 miles from the sea. At 21.00 we dropped anchor in Greenland for the first time. Downed a beer to celebrate a safe arrival after all the difficulties and effort.

The Fjord was home to a substantial collection of icebergs, which drifted up and down it on the tide. However, it was very sheltered and these only occasionally gave us trouble, when they drifted too close.

Mikis Fjord is surrounded by mountains & glaciers, a stark but beautiful setting.

3 August

Unloaded the climbing & camping gear/supplies by dinghy. Set up camp on the beach below Peak 830 m.

Position : North 68 degrees 10.086' West 31 degrees 19.551'

(All positions & altitudes referred to are as recorded on GPS- Garmin Etrek)

Our initial impression was of a barren landscape of broken rock, but we subsequently found small patches of alpine flowers, grass & lichens scattered thinly. We also saw 'forests' of Arctic Willow towering a few centimetres above the ground. There were occasional specimens of heather, fern & fungi. Although this seemed to us a wet environment, such plants as existed were limited to the margins of water courses, suggesting that conditions are normally arid, a frozen desert.

We occasionally saw seals, and small numbers of birds, including Greylag Geese, Turnstones, Snow Bunting, & Arctic Gulls.

A few insects visited us, including a red spider mite, small flies and a rust coloured butterfly. No biting insects.

We needed to leave on 10 August to meet our timetable for a safe return. We felt that the delays we had experienced left insufficient time for a portage around to the Sidegletscher. We opted to attempt peaks adjoining the Fjord.

Set off for a reconnaissance trip in light rain, to look for a route up the shapely peak marked as 1289m on the map. This is the highest peak beside the Fjord, we referred to it as Mikis Peak for convenience. The rain increased and reduced visibility. We had to settle for a close view of the base of an icefall and buttresses which guarded the base of the mountain. A view of the peak from high up on the northern side of the valley, from Peak 830m, would have made route selection easier, and increased our chances of success.

It rained all night.

4 August

Continuous rain, low cloud, poor visibility, very mild. Conditions too poor for climbing. Very frustrating. Retreated to the yacht to wait for the rain, to stop. It got heavier instead.

5 August

Rain finally stopped in the morning, after approximately 36 hours of continuous rain. The clouds were clearing sufficiently for us to set out for Mikis Peak by noon. Climbing party consisted of Rob, Steve, Tim, Stewart and me. We had decided to climb the icefall, as from its base it looked to be possible to link a line of ramps & short walls together to the top, and it seemed stable. We approached this via a glacier which rises gently from Mikis Fjord to the foot of the mountain.

The rocky shoulder immediately to the west of the icefall also looked possible, but it appeared to be guarded by a series of buttresses and therefore harder. The icefall soon proved to be more complex, and much higher, than we could see from below. We spent a lot of time route finding, weaving our way upwards through a maze of interlocking crevasses, teetering along the top of narrow walls between crevasses and climbing ice walls.

However, the ice was in excellent condition and we enjoyed pitch after pitch of superb ice climbing, over 1,000 feet in all. It proved to be the best climbing of the trip (Scottish Grade I -IV). We arrived at the top of the rocky shoulder after about 4.5 hours on the icefall. 18.00 hours.

Position : North 68 degrees 8.632' West 31 degrees 19.575'

From there a glacier extended at an easy angle up and around to the west, between ridges coming down from the summit of Mikis Peak. The glacier contained a number of crevasses hidden by soft snow and therefore required caution, but was otherwise easy going.

Ahead of us, the upper glacier split into two. The main arm ran straight towards the peak, while a smaller southern arm looped around a subsidiary ridge to the south. See Route Map.

Immediately to our right (north) the main ridge appeared to run straight to the summit. This was the eastern ridge clearly viewed from the Fjord. It would have been possible to have bypassed the eastern ridge by walking to the top of the glacier, crossing the bergschrund and then attempting a yellowish gully in the face between the eastern ridge and the subsidiary ridge to the south. However, in view of the crevasse problems we were experiencing, we decided to take to the eastern ridge. Stewart, Rob & I climb onto it via an obvious gully line on its southern side, near its eastern end.

Foot of gully : North 68 degrees 8.420' West 31 degrees 20.142'
Elevation 876m.

The gully led to the ridge about 100m above. Although it was at a reasonable angle, it proved to be desperately loose (see section on Hazards). It took an hour to climb.

Meanwhile Steve led Tim up a steeper buttress & ramp route immediately to the west of the gully. This still contained loose sections but proved to be both quicker & safer than the gully.

We all then headed up the ridge, with Steve in front.

The ridge felt high and exposed. It was pretty straight, generally 1 to 3 metres in width and crumbling, although it felt far safer than the climb up to it!

Progress was by a mixture of walking & scrambling. We encountered one significant rock step which required some short but exposed climbing, on its right, to surmount (Diff). Not technically difficult, but large blocks came away when weighted.

Wonderful views, both straight down the north face to the turquoise fjord far below, and out to the north to the impressively jagged peaks of the Sidegletscher, with the Lemon Mountains beyond.

We pushed on until midnight, when by unanimous agreement we decided to call it a day.

Highest point: North 68 degrees 8.461' West 31 degrees 20.673'
Elevation 1,097m.

6 August

We still had some distance ahead of us to the summit, and some rock steps to surmount. There is also a summit ice field which appears to cover the ridge. After 12 hours of climbing we were tired, we were just about out of water & food, and we had concerns about how we were going to get down again. We anticipated it taking a similar time to descend and decided to turn around while we still had a reasonable safety margin.

We abseiled the rock step, but otherwise descended the ridge by walking/scrambling, to the point where we had first climbed it.

Most of the south side of the ridge looked too loose to contemplate down climbing or abseiling. (The north side is much higher and more dangerous).

The risk of kicking rocks down on each other was too great. After some debate we decided to abseil Steve's & Tim's buttress route.

We accomplished this successfully in two 50 metre abseils. Although, because of the need for caution, it took about two hours before we were all safely back on the glacier.

We proceed safely down the upper glacier, reaching the rocky shoulder (*North 68 degrees 8.632' West 31 degrees 19.575'*) at 06.00.

Our major concern was the descent from here to camp, as we wished to bypass the icefall if possible. We decided to try to descend the rocky shoulder itself. This proved to be easy going for much of the way. We moved un-roped, linking boulder slopes & gullies, without technical difficulty for much of the way. As we got lower, the shoulder got steeper and buttresses more frequent. We had moved to the eastern side of the rocky shoulder by now and made two abseils over buttresses to reach the lower icefall. From here we were able to regain the main glacier and walk back to camp, arriving at 10.30 am after 22.5 hours on the move.

Recommendations

Although the icefall made for enjoyable climbing, the quickest way up would be by the shoulder. It looks like it should be possible to outflank the lower buttresses by climbing the shoulder's north west corner.

Once on the upper glacier, the ridges could be bypassed and a route sought up the face between the eastern ridge and the subsidiary ridge to the south.

The north face of Mikis Peak (Peak 1289m) looks very loose, as does its western ridge. While I can't comment on the summit section, the route we followed has the advantage of getting close while bypassing the most obvious technical difficulties.

7 August

The rain returned. Miserable conditions with cloud down to 100m, mist. Went for a long walk.

8 August

A dazzlingly bright & sunny day. This was, realistically, our last chance to reach a summit. We decided to ascend the glacier immediately above our camp. Aerial photos showed a number of peaks in this area and we set off with an open mind as to which one we would attempt.

As before, the climbing party consisted of Rob, Steve, Tim, Stewart and me. It took us about three hours to reach the glacier bowl immediately north of Peak 830m. The view was dominated by an interesting peak to the north east, clearly the highest in the group. (This is the peak below the north point on the Route Map) However, we could not see an easy route up it. Its southern ridge looks attractive, but has a deep gash in it just short of the summit. Its western ridge is overhanging, and the face in between is heavily crevassed low down, with a loose looking cliff at half height. (Nonetheless, this looked the easiest approach from below)

After some debate, we climbed to the col between this peak and Pk 830. From here, we spotted a peak to the south east which intriguingly did not appear on the map, despite obviously being higher than the adjoining Pk 830m. We decided to make for it. There were no technical difficulties en route, other than hidden crevasses.

The peak itself proved to be straightforward. It was climbed by two routes, first a gully on its south western flank (*Position : North 68 degrees 10.161' West 31 degrees 15.029'*), and then its north ridge. The gully was, as usual, dangerously loose. The ridge was much more stable. Tim was the first to the summit, recorded as 870m on GPS (890m on Steve's altimeter).

Summit Position : North 68 degrees 10.152' West 31 degrees 14.874'

We referred to it as 'Red Peak' on account of its colour, oxidised gabbro. We built a small cairn and descended by the north ridge.

9 August

Spent the day packing up the camp

10 August

Raised the anchor and left at 09.00, in dazzling sunshine. Beautiful views of the Greenland coast as we left.

11 August

In the bright sunshine, we experienced bizarre refraction effects. Icebergs appeared to balance on pinnacles or sprouted wings, and the mountains of Greenland were still visible after 160 miles, floating in the air, long after they were below the horizon.

Our apparent view of them was only cut off when we entered a dense fog bank which extended 100 miles to the coast of Iceland. Despite numerous dolphin sightings and the excitement of a near whale collision, this was the coldest, wettest and most miserable part of our trip.

12 August

After approximately 20 hours of feeling our way through the fog on radar, we finally crept into Isafjordur Harbour at 06.15. (Shared half a lager between us, as if!)

13 August

Rob, Steve, Stewart, Tim & I flew out of Isafjordur to Reykjavik and home.

Post script

Assisted by a volunteer crew of Kit Burgess, Bruce Shairp, John & Greg, Ron & Luke left Isafjordur on 16 August, arriving in Keflavik on the evening of 18 August. However, a series of gales prevented further safe progress this year. By the end of August, the last of the crew were home, leaving the Elizebeth Victory safely moored in Keflavik for the winter.

Conclusion

Sailing - Using a yacht added considerably to the sense of adventure on the trip. However, actually getting ashore in a Greenland fjord became a major achievement in itself and climbing something was only a bonus.

On the plus side, it meant we didn't have to worry about the amount of food and equipment we took, and managing waste was easy. We were entirely self sufficient and had the flexibility to go where & when we wanted. The yacht also gave us a secure and well equipped base, which was very welcome in the miserable conditions we encountered at times.

Having researched the alternative of hiring a plane to fly in, we found that our approach was very much cheaper. However, you need to have a yacht available!

On the down side, we had a narrow window of opportunity. Sea ice conditions only became acceptable a few weeks before weather conditions became unacceptable for the voyage home.

We had to worry about the weather at sea as well as weather in the mountains. Since both seem unfavourable in the Arctic, we increased the risk of failure.

Sailing also adds considerably to demands on the team. Both getting there, and getting back proved tough at times, not ideal preparation for climbing.

Overall though, it gave the expedition a special character, and the encounters with icebergs, dolphins and whales will live with us for ever.

Climbing – Presumably for the reasons identified above, there seems to have been little climbing in the mountains on the coast in this part of Greenland. However, there is clearly a lot of scope. Most expeditions have flown in to the higher glaciers, bypassing the coastal mountains and leaving them largely untouched.

We had excellent views of the Sidegletscher mountains, our intended destination, and they looked steep, jagged and inviting. Chris Bonington confirmed that they were granite and in photos they looked to be much more sound than the shattered rock we encountered.

The loose nature of the mountains we explored would put you off face routes. However, we could see a lot of attractive ridges, and in our experience these were somewhat better.

Given that air access to the Mikis area should now become easier, this is an area that may see significant exploration by climbers in the near future.

Acknowledgements

We would like to thank our main sponsors, Gino Watkins Foundation, BMC, Mount Everest Foundation, Austrian Alpine Club and Hertford Shelving.

We are also indebted to all those who helped us out by assisting in getting the boat ready, volunteering to crew en route to Iceland or back, or in other ways, including Bill Baird, Rod Blake, Mo Philips, Les Allen and particularly Grace Newton.

Appendices

Accounts

Expenditure

Aerial Photos/maps	120
Charts	520
Rifle Hire	350
Insurance	2,607
Boat Insurance	370
Epirbs/Liferaft	512
Dinghy	464
Aluminium Poles	70
Battery/Medicine	114
Boat Banner	80
Flares	54
Boat food	334
Mountain Food	141
Gas/Cookers	125
Radio Permit	46
Yamaha Tank	23
International Air fares	1011
Internal Air fares	650
Total	£7,591

Receipts

Gino Watkins	800
BMC	600
MEF	350
AAC	350
CPTimber	200
Tesco	150
M Docherty	100
Nabco	50
<u>Woodstyle</u>	<u>40</u>
Total	£2,540

Contributions from
team members £5,051

Address List

Dansk Polarcenter, Strandgade 100 H, DK-1401 Kobenhavn K, Denmark.
Tel +45 32 88 01 00 www.dpc.dk email dpc@dpc.dk

(Radio) Radioadministration, PO Box 504, DK-3920 Qaqortoq, Greenland.
Tel +299 64 31 22 email RFV@tele.gl

(Police) Island Command Greenland Tel +299 69 19 11

(Equipment hire & aerial photos) Paul Walker, Tangent Expeditions, 3 Millbeck, New Hutton, Kendal, Cumbria, LA8 0BD.

(EPIRB hire) Premium Liferrafts, Liferaft House, Burnham Business Park, Burnham-on-Crouch, Essex. CM0 8TE.
Tel 01621 784858 www.liferrafts.com email info@liferrafts.com

(Insurance) If P&C, Stamholmen 159, 2650 Hvidovre, Denmark
www.if-insurance.com email lizzi.johansen@if.dk
tel +45 3687 4274

(Maps) Stanfords, 12 Long Acre, London, WC2E 9LP. 0171 8361321

Bibliography

Websites

Understanding sea ice conditions was crucial to the success of our expedition. I used a US website run by the National Oceanographic & Atmospheric Administration www.natice.noaa.gov which provides a weekly record of extent & thickness of sea ice across the arctic, broken down into regions. It includes searchable records going back about five years. The current information is always at least a week out of date, so it doesn't confirm what sea ice conditions are like at the moment. However, by studying records for our intended destination, over five years, I was able to build up a picture of the likelihood of access around particular dates. Comparing the pattern & speed of sea ice break-up in previous years, with what we could see developing this year, was useful in forming the judgement that 2004 would be a 'normal' year in which there would be a window of opportunity sometime in August. This proved to be correct.

In Iceland we used a local website which provided computer modelled weather charts, to assist in planning sailing stages.

Books

We modelled our trip on that undertaken by Chris Bonington & Robin Knox-Johnson in 1992, as described in 'Sea, Ice & Rock' published by Sheridan House. Out of print but can still be found in second hand book shops. Recommended reading for anyone considering access by sea.