

# The Southern Ocean Mountaineering Expedition



Terra Nova



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SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

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SOUTH GEORGIA 1989-1990

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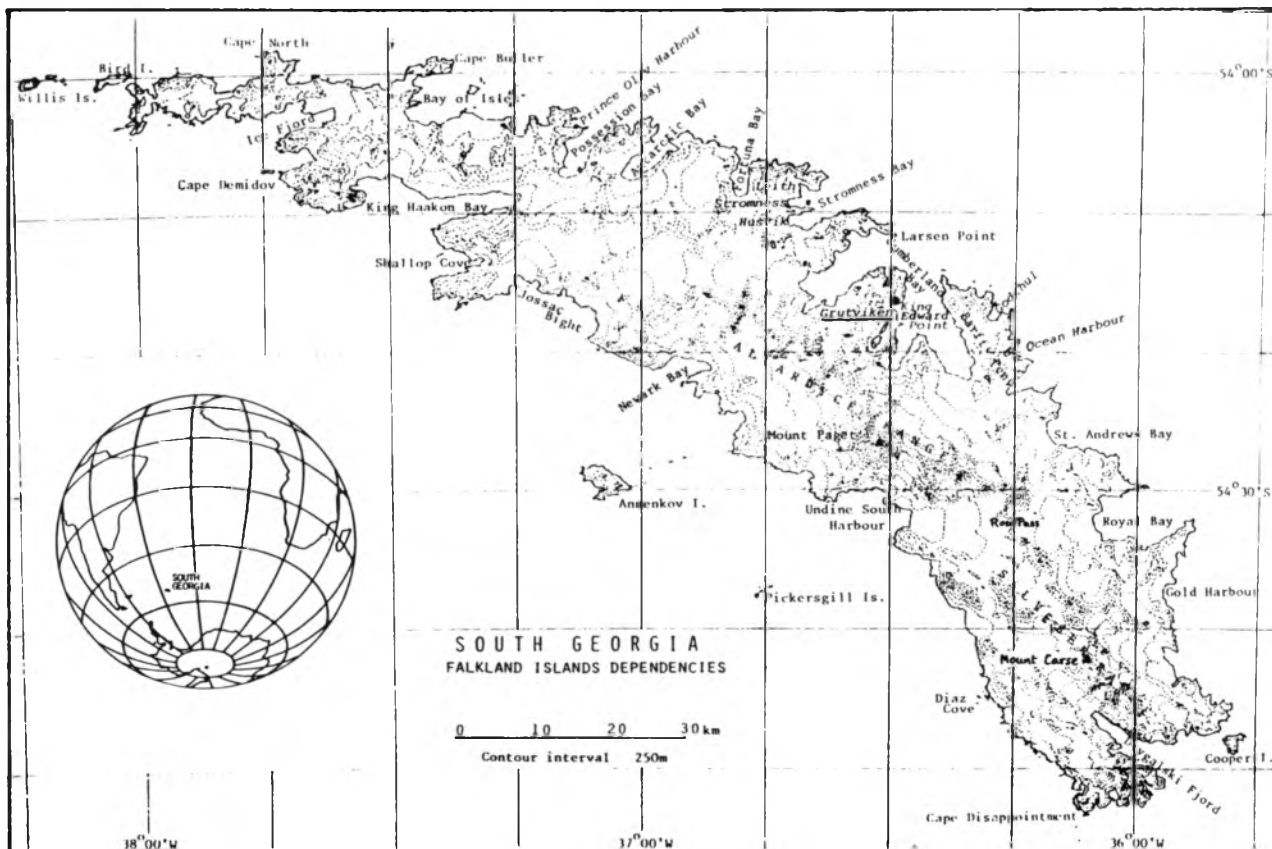
## SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

### SOUTH GEORGIA

South Georgia is a remote island in the South Atlantic, approximately 900 miles east-south-east of the Falkland Islands. It is no further south of the equator than Scotland is north; however, the climate in South Georgia is much colder, because it lies within the icy waters of the Antarctic Convergence. The first recorded landing was in 1775 by Captain Cook, who went ashore in Possession Bay, claimed the land for Britain and named it after King George III.

The island is crescent shaped, about 100 miles long by 20 miles wide and orientated north-west to south-east; all the natural harbours are on the more sheltered north-east coast. In the 19th century elephant and fur seals were hunted; then in the 20th century the island became the centre of the much more profitable southern whaling industry, with six permanent whaling stations operating in its heyday.

The entire island is mountainous, with large glaciers flowing into the sea and permanent snow cover above 2000 feet. The highest peak, Mt Paget (9625 ft) is in the Allardyce Range, which is separated by the Ross Pass from the Salvesen Range at the southern end of the island.



Map reproduced from South Georgia - A Concise Account, by kind permission of Robert Headland and the British Antarctic Survey. [See also detailed map on page 8]

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### ORIGINS OF THE 1989-90 EXPEDITION

The four members of the climbing team had all met during the 1987 Jade Venture expedition to Tibet. We had all wanted for many years to visit South Georgia and, through our honorary director, Colonel John Blashford-Snell, we had an introduction to Captain Nicholas Barker, former captain of HMS Endurance during the Falklands conflict. He put us in touch with the present captain, Captain Norman Hodgson, who agreed to take 1½ tons of expedition supplies to South Georgia via the Falklands, where the expedition was to join the ship. He also promised that, if his busy schedule allowed, while dropping us at the island's central base at King Edward Point, he would helicopter half our supplies to Royal Bay, establishing a cache within reasonable distance of the southerly Salvesen Range.

Numerous past explorers gave valuable advice, but we were helped particularly by the acknowledged South Georgia expert, Duncan Carse, who led several survey expedition during the fifties and sixties, and by General Patrick Fagan MBE, who was on the 1964-5 Joint Services Expedition. Finally, our project was given the necessary permission by His Excellency W.H.Fullerton, the Governor of the Falkland Islands, and General Paul Stevenson OBE, Commander of the British Forces in the Falkland Islands. Without their support, and the generous help of so many people in the armed services, the expedition would never have happened.

### AIMS OF THE EXPEDITION

We hoped to attempt as many unclimbed peaks as possible, but our main objective was to make the first ascent of Mt Carse (7649 ft), the highest peak in the Salvesen Range. The other main aim was for Kees 't Hooft to make a film about our expedition, the island and its magnificent wildlife.

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### THE JOURNEY OUT

The expedition supplies were loaded aboard HMS Endurance at Portsmouth on November 1, 1989. On December 4 the five of us flew from RAF Brize Norton, arriving the next day at Mount Pleasant Airport, East Falkland, where for five days we enjoyed the hospitality of the officers' mess. In Port Stanley we met the Governor, visited both the two pubs and gave a lecture at the school.

On December 10 we embarked on HMS Endurance, for the three day passage to South Georgia. The weather was beautiful and, together with the other civilian guests on board, we were welcomed in the hospitable tradition of the ship. On December 14, the day we landed at King Edward Point, Captain Hodgson and the flight commander kindly agreed to one of the ship's helicopters making two flights 25 miles south-east to Royal Bay, to cache half our supplies, specially packed in Bowater waterproof barrels. With this vital cache in place, our plans for the Salvesen Range could now be carried out. The rest of our supplies were either left in reserve at KEP or taken with us the following day in one of the ship's boats (the Stancombe Wills) across Cumberland East Bay to the hut at Sörling Valley. Having spent only one night with the army garrison at KEP, we were now to be out of touch for the next 43 days.

### THE WALK TO ROYAL BAY

After a recce on the 15th we made our way in two days south-east to Royal Bay. From Sörling Valley, the route crosses a pass to Hound Bay, then a higher pass to St Andrew's Bay, where we stayed overnight in the hut built by Cindy Buxton and Annie Price. From there it is possible to follow the beach, then a rock platform (swept by waves at high tide), round to Doris Bay and Kelp Bay, from where we crossed another pass, leading south to Whale Valley. (On the return we found it better to take a direct line between Whale Valley and Doris Bay). Whale Valley leads down to Moltke Harbour, the corner of Royal Bay decorated with a tiny, old, leaking, British Antarctic Survey hut, where our cached supplies were waiting.

The two day walk to Royal Bay was plagued by grey drizzly weather, our ruksacks (including heavy filming equipment) were uncomfortably heavy, and two members of the team nearly drowned in the sea; however, these minor nuisances were offset by the pleasures of our introduction to the island's prolific coastal wildlife - arctic terns, pintail ducks, skuas, giant petrels, sheathbills, blue-eyed cormorants and light-mantled sooty albatrosses. The only land mammals are non-indigenous: the nocturnal rats, originally stowaways on whaling ships, and the reindeer herds introduced for sport by the Norwegians. At St Andrews Bay we saw our first fur seals and vast numbers of sea elephants, but the most startling sight and sound was the king penguin colony - one of the largest in the world. We had

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previously seen one solitary chinstrap penguin and at Royal Bay we were to see many gentoos.

### ROYAL BAY TO THE ROSS PASS

We arrived at Molkte Harbour on December 17 and pitched two tents to supplement the cramped, leaking accomodation in the BAS hut. Over the next five days we carried loads daily round the bay to Little Molkte Harbour and up the snout of the Ross Glacier to 'Moraine Depot'. The whole period was one of high winds, sleet, snow and rain. On one occasion two members of the party had to abandon a load carry because 'sand-blasting' on the beach made progress into the wind impossible. One of the tents at Molkte Harbour was destroyed on December 21, but our spare tents, of a better design, survived much stronger winds on Boxing Day.

On December 23 all the team except 't Hooft carried loads right up the glacier to the Ross Pass (10 hours), encountering a solitary leopard seal on the beach on the way up. Freeman-Attwood and Venables returned that night to the hut, leaving Davison and Griffin to dig a snow cave into the wall of a huge windscoop beneath the rocky ridge on the south side of the Ross Pass.

One of the Endurance helicopters appeared briefly at the hut on December 24 and the pilot offered kindly to transport the rest of the Ross Pass loads and most of the supplies at Moraine Depot to a higher depot on the glacier, saving us days of load-carrying and putting the bulk of our supplies within 1½ hour's reach of the Ross Pass. On Christmas Day - a day of brilliant warm sunshine and blue skies, with sea and ice a deep turquoise, Freeman-Attwood, 't Hooft and Venables walked up the glacier to secure and mark Helicopter Depot.

Katabatic winds gusted to well over 100 mph on Boxing Day. At the Ross Pass the temperature rose dramatically, with pouring rain. On the morning of the 27th Davison and Griffin woke to find the wind scoop filled with a lake, which was rising rapidly and lapping the door of their laboriously excavated snow cave. Griffin had nearly been drowned already once on the expedition, so they left, caching the equipment at a safer altitude and returning late that night to the hut.

The weather remained appalling for the next two days, then improved on the 30th and that evening Davison and Venables set off to dig a new snowcave at the Ross Pass.

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### THE ROSS PASS

Our whole strategy for the Salvesen Range depended on a reliable base at the Ross Pass. Tents were hardly suitable for the conditions and the first snow cave was under water, so we now had to dig a new cave near the top of the scoop wall, well clear of the high tide mark. Davison and Venables started work on the morning of December 31 and by the time the others arrived that evening there was room for them to sleep in the cave.

Over the next four days, using a steel spade and snow saw, we enlarged the cave until we had two chambers, each seven feet high, with room to pitch the two man tent and the remains of the three man tent inside. We also excavated a kitchen dresser and shelves, further storage cupboards, ornamental Romanesque columns and a late Gothic niche. The weather at this time was generally bad, but when wind and visibility allowed we took turns to fetch loads from Helicopter Depot and Moraine Depot, using skis or snowshoes to travel on the glacier.

On January 4 there was a brief evening clearing and all five of us made a recce towards Vogel Peak. Davison and Griffin made the first ascent of a bump on the ridge. Then for the next week we were confined to the cave by blizzards, with just a brief respite on the 7th to collect the remaining supplies from Helicopter Depot. Life in the cave was a little monotonous, but we had good stocks of food and gas, a large book of crosswords and an eclectic range of books from W.H.Smith.

### PT. c.3200

Dreams of climbing Mt Carse were now diminishing rapidly and we were grateful for a chance to climb anything, however close and small. A brief clearing at dawn on January 12 gave us the chance to find our way across the Brögger Glacier to attempt a small but shapely peak about 3200 feet above sea level. All five of us reached the summit in fierce winds and then made our way back to the cave in a white-out, navigating by the compass.

The weather reverted to blizzard conditions, confining us to base again for another two days.

### VOGEL PEAK (4436 ft)

On January 15 there was a dramatic improvement. The wind dropped and veered round to the east, the sun shone and everything was taken out of the cave to dry. 't Hooft shot several rolls of film. Freeman-Attwood and Venables made a ski reconnaissance to a pass crossing the nunatak ridge between the Brögger and Spenceley glaciers, spotting a feasible route up the SW flank of unclimbed Vogel Peak (Vogel is German for bird, and the name originated, presumably, from the 1982 German expedition).

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On January 16 all five of us left the cave at 2.30 am in fine weather and reached the foot of Vogel Peak at 4.00 am. The four climbers started the climb at 5.00, leaving 't Hooft filming at the base. The route up the SW flank was enjoyable, with perfect neve conditions underfoot, following 45 degree slopes, terraces, and steeper ice walls between crevasses - typical glacier terrain comparable to an alpine PD sup climb. The summit was reached at 7.45 am in deteriorating weather and we flew the expedition flag stating our support for Antarctica as a World Park.

We retreated in poor visibility to the snowcave, reaching it at midday. On the way back Davison made the first ascent of a nunatak (Pt 3459) NW of Vogel.

The wind veered back to the west, bringing more bad weather and we were confined to the cave for another three days. On the 20th a marginal improvement allowed us to do some filming, start the laborious process of burning all our accumulated rubbish and, in the evening, to ski two miles down the Brogger Glacier and make the first ascent of a steep nunatak (Pt. 2442). On the return Davison and Griffin climbed Pt. 2395.



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### MT KLING (6059 ft) & MT CARSE (7649 ft)

After three weeks at the Ross Pass, our allotted time was almost up and we were now down to two days food, so we decided that if the weather was not fine on January 21 we would have to return to Royal Bay. However, we were lucky: dawn was fine with the wind in the east.

The original plan had been to establish a forward base near Mt Carse, but bad weather had stopped us achieving this. The only hope now was to travel fast and light and climb the peak in a 'quick dash'. Davison and Venables, the best skiers, set off at 7am to attempt this. At 7.30 Freeman-Attwood, Griffin and 't Hooft set off in the opposite direction to attempt one of the major unclimbed peaks of the Allardyce Range - Mt Kling. 't Hooft remained at the base of the mountain to film with a long lens. Freeman-Attwood and Griffin proceeded up a wide couloir on the south flank of the mountain and, after a steep pitch of Scottish Grade 3/4, gained the south-west ridge. The final 1500 feet steepened to 65 degrees hard blue ice and the top pitch required some steep mixed climbing on rotten rock (Scottish 4). They reached the summit at 3.30 pm, although a rotten, crumbling blade of ice perched 25 feet above the summit rock was too dangerous to attempt. They had fine views south down the whole of the Salvesen Range and, immediately to the north, the 5000 ft high south face of Mt Nordenskjöld.

Freeman-Attwood and Griffin abseiled off the summit from a snowstake and, after retreating down the SW ridge, climbed a subsidiary summit of about 5000 feet. Having rejoined the cameraman, they returned to base, navigating by compass in low cloud, reaching the snow cave at 8.00 pm.

Meanwhile Davison and Venables had been travelling south-east up the Spenceley Glacier on ski, crossing a pass east of Pt. 4792, descending to the basin below Mt Paterson and then climbing up to another pass immediately south-west of Paterson, from where they had a clear view of Mt Carse and what was obviously the most feasible route up its north-west flank. A final ski down and across the Novosilski Glacier took them to a reasonably sheltered wind scoop at 3500 feet, right at the foot of Mt Carse, where they pitched the two man tent at 2.30 pm.

After a meal and a rest, they set off at 5.00 pm on the 4000 feet climb. The route did not have the technical difficulties of Mt Kling, but there were some steep, exposed ice slopes and the 4000 ft height gain felt tiring after 13 mile journey from the Ross Pass. Cloud was banked up against the east side of the mountains for the length of the Salvesen and Allardyce ranges, but to the west the sky remained clear with the setting sun reflected in the Southern Ocean and deep blue shadows lengthening on the Novosilski Glacier.

The final 2000 of the route weaved up through a series of false summits - the great mushrooms of hoar frost which tend to festoon the ridges on South Georgia above 4000 feet. The surface was a crunchy texture of ice feathers and little flower-like formations, glowing a deeper purple as they approached the top. The sun had already set when they finally

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stood on the summit at 9.45 pm.

The wind on the summit was bitter and after just five minutes on top Davison and Venables started down in the dark. Two hours later they were back in their tent, just staying awake long enough to drink a mug of soup.

Early the next morning they packed up the tent and set off back for the snowcave. The weather remained fine for the fantastic trundle back down the Spenceley Glacier, but coming round into the bay below Vogel they were hit by cloud and vicious katabatic winds. Climbing up to the final pass, to get back over to the Brögger Glacier, they were knocked repeatedly out of their ski bindings and had to exchange skis for crampons. At one point Venables could not make forward progress and resorted to crawling on hands and knees. At this point Davison came to the rescue and dragged him over the pass by the scruff of the neck. The final mile back to the marker wands at the snow cave was done in the traditional white-out.

At 2.30 pm on the 22nd they reached the snowcave. The 30 mile trip to the summit of Carse and back had taken 31 hours. A note informed them that the other three had just set off down to Royal Bay, carrying the bulk of the luggage on an improvised sledge. Davison and Venables set off the following day with the rest of the luggage, in deteriorating weather.

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JULIAN FREEMAN-ATTWOOD ON THE SUMMIT OF MT KLING (6059 FT). MT CARSE IS VISIBLE ABOVE THE CLOUDS, FIFTEEN MILES TO THE SOUTH.



BRIAN DAVISON, DWARFED BY THE NOVOSILSKI GLACIER, STARTS THE JOURNEY BACK FROM MT CARSE (7649 FT). THE ROUTE UP CARSE TOOK THE GLACIER SLOPES JUST RIGHT OF THE ROCKS.



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### THE RETURN TO SÖRLING VALLEY

At the very last moment we had achieved our objectives in the Salvesen Range and southern end of the Allardyce Range. The plan now was to spend the rest of our time based further north at the Sorling Valley hut and attempt new routes on the north-east side of the Allardyce Range, in particular the unclimbed peak of Mt Roots.

Before leaving for Sörling Valley, we had to bring down to Royal Bay the remaining luggage from Moraine Depot and from further up the glacier, where the makeshift sledge had been abandoned on January 22, after hours of slow, lurching manhauling and numerous falls in crevasses. So, on the 25th the offending loads were finally brought down to the hut at Molkte Harbour and the next day we began the long process of ferrying equipment back to Sörling Valley. The journey was done with intermediate dumps between Royal Bay, St Andrew's Bay and Sorling Valley huts, so that there were four manageable stages in all. The job took from January 26 to February 4 and during that time 't Hooft did a lot of successful filming, particularly at the vast St Andrew's king penguin colony, where the midsummer batch of chicks was just hatching.

On January 27 we met an army patrol, who radioed news of our safe return to the garrison commander at KEP, Major Matt O'Hanlon. Although we had made careful contingency plans for coping with a possible accident, Major O'Hanlon felt technically responsible for us while we were on the island, and was clearly relieved to have us back in radio contact.

### FINAL FORAYS FROM SÖRLING VALLEY

Fifteen days remained before we were due to return to King Edward Point. At Sörling Valley we had a comfortable base, well stocked with food, Famous Grouse and Marks & Spencer wines and champagne. A generous re-supply by the garrison boats added Guinness, cigarettes and our long-awaited mail (Hercules aircraft do a mail drop from the Falklands every two weeks).

We also had much better weather during February. This was partly a localised phenomenon, for, unlike the great wind tunnel of the Ross Pass/Royal Bay region, the Barff Peninsula, where the Sörling Valley hut is located, lies well to the leeward of the mountains and enjoys some lovely weather. Even up on the mountains the weather appeared to be better. However, tired of snowcave living, we decided to base ourselves at the hut. Three times we set off in reasonable weather, carrying mountaineering equipment and a tent up the Nordenskjöld to camp at the foot of Mt Roots, only to have the weather deteriorate and send us back to base. On the second attempt, Griffin (who was unfortunate enough to be on the windward side) had to spend the whole night propping up the tent against violent katabatic gusts.

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Our proposed route up the virgin peak of Roots, taking the north buttress of the main summit, looked a feasible interesting line; likewise an unclimbed line on the island's highest peak, Mt Paget. Alas we never set foot on either, in spite of travelling a total of forty miles up and down the Nordenskjöld Glacier during our three attempts.

Apart from our attempts on Roots, we explored the coastline of the Barff peninsula - delightful walking country reminiscent of North-West Scotland. We visited the whaling station ruins and shipwreck at Hound Bay; Davison and Griffin climbed some peaks above the dwindling Szelasko Ice Cap. We were also kept busy filming skuas, light-mantled sooty albatrosses, petrels, fur seals and our own antics on the glacier.

### RETURN TO KING EDWARD POINT

On February 20 we were collected by the Marines boatswain and taken back across Cumberland East Bay in 'rigid raiders' to the army base at King Edward Point, which we had left 68 days earlier.

For our final week we enjoyed the hospitality of the officers' mess. 't Hooft did some final filming at Grytviken whaling station and produced a group photo for the departing garrison. Davison and Griffin climbed every minor bump for miles around; Freeman-Attwood and VENABLES watched countless videos in the mess. During the last four days, when we were powerless to go and attempt any big peaks, the weather was, needless to say, immaculate.

On March 1 we sailed in RFNA Diligence, arriving back in the Falklands on March 4. On March 10 we flew home.

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EXPEDITION DIARY

1989

- JANUARY First approach to Navy, through Captain Barker
- NOVEMBER Stores loaded on HMS Endurance at Portsmouth
- DEC 4 Fly from Brize Norton  
5-9 In Falkland Islands  
10 Embark on HMS Endurance  
14 Disembark at King Edward Point. Helicopter cache at Royal Bay
- 15 Cross Cumberland East Bay to Sörling Valley  
16-17 Walk to ROYAL BAY  
18-22 Establish depot on Ross Glacier  
23 Climb to ROSS PASS. Davison & Griffin left to dig first snowcave  
24 Helicopter Depot on Ross Glacier  
26 Worst winds of expedition  
27 Snowcave flooded. Davison & Griffin descend.
- 30 Davison & Venables depart in evening for ROSS PASS  
31 Start new snowcave. Rest of team arrives.

1990

- JAN 1-4 Completion of snowcave. Load carries from Glacier and Helicopter Depots.  
4 Evening recce towards Vogel Peak  
5-6 Confined by bad weather to cave  
7 Brief clearing. Final load carry.  
8-11 Confined to cave  
12 Brief clearing at dawn. Full team climbs PT. C.3200  
13-14 Confined to cave  
15 Sunshine! Drying, filming and recce to Vogel Peak  
16 Four climbers climb VOGEL PEAK, filmed by 't Hooft  
17-19 Confined to cave  
20 Weather improves. Ascent of PT. 2422 in evening
- 21 Freeman-Attwood & Griffin climb MT KLING  
Davison and Venables climb MT CARSE  
22 Freeman-Attwood, Griffin & 't Hooft descend to Royal Bay. Davison & Venables return from Mt Carse  
23 Venables & Davison descend to Royal Bay

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26-30 Relay loads back to St Andrews Bay  
27 Meet army patrol at St Andrews - first contact since  
December 15  
31- Relay loads from St Andrews to Sörling Valley  
FEB 4  
6-8 First attempt on MT ROOTS  
9-11 At Sörling Valley. Walks to Ocean Harbour etc  
12-13 Second attempt on Mt Roots rained off  
14-16 Filming around Sörling Valley  
17-19 Positively the last abortive attempt on Mt Roots,  
ending with heavy snowfall  
  
20 Return to KING EDWARD POINT  
27 RFNA Diligence arrives. Visit to Leith  
MAR 1 Diligence sails for Falkland Islands  
4-10 In Falklands  
11 Fly back to Britain



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### EQUIPMENT

South Georgia is about as exacting a testing ground for camping and mountaineering equipment as one could hope to find. Contrary to popular belief, cold is not the problem. Conditions are nowhere near as cold as on the Antarctic mainland; the climate is a coastal one, with temperatures rarely dropping below -5c in summer, even on the summits. The main problems are wind and what we called the APD syndrome - all pervading damp.

### SHELTER

At Royal Bay and Sörling Valley, we supplemented the existing huts with two Wild Country tents - a Mountain Super Nova and Mountain Quasar. The former is a more spacious dome, can sleep three in reasonable comfort and on one occasion accomodated all five of us. The Quasar is smaller and less luxurious, but because of its low profile even stronger in the wind. It hardly moved in 100 mph gusts, whereas the Super Nova did flex a little. Both are superbly designed and have the features essential for a serious mountain tent: strong poles, properly proofed flysheet, ample porch entrances at both ends, sufficiently robust groundsheet and multiple guylines.

Another dome tent, of a different make, did not have these features and only survived four days at Royal Bay before imploding. As one member summarised after a night of inclement weather: 'We would have been marginally better off without it.'

Even the Wild Country tents were not robust enough for prolonged living at the Ross Pass and probably the only tent suitable for sustained glacier travel on South Georgia is the traditional Antarctic pyramid, which is very expensive and very heavy, necessitating sledge transport.

We settled for a snowcave, which was well worth the effort of excavation. The essential equipment for serious snowcave building is a snow saw and a strong shovel. Our three collapsible alloy shovels all developed metal fatigue and we were very grateful for the Royal Bay heavy steel spade.

On the 'quick dash' to Mt Carse, Davison and Venables carried the Wild Country Quasar tent, which gave a secure temporary base at the foot of the mountain.

### CLOTHING

It would be tedious to relate here the long discussions we had about the problems of keeping dry and warm. No clothing is ideal in such a wet climate. The only genuinely waterproof fabric is pvc, as used by sailors, but that would hardly be practical for strenuous uphill climbing.

Karrimor provided excellent fibre inner garments, including the cleverly designed Baltoro vest and Alpiniste salopettes. The Baltoro overtrousers and anoraks were also excellently designed, with good cut and zips in all the right places, but the material, Sympatex, did not live up to its claims to be waterproof. Two members of the team also had Mountain Equipment one-piece windsuits made from Goretex. In

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South Georgia conditions they are not 100% waterproof, but they do make an excellent protective overall, with the sort of hood which can shelter the head and face against driving spindrift.

Climbing conditions were too warm to need down gear, but at base most of the team were glad of Mountain Equipment down jackets; one member wore a Durham Mountaineering synthetic duvet. Mountain Equipment Down sleeping bags with Goretex covers stayed reasonably dry in the snow cave.

Above the snowline everyone wore either Koflach or Asolo plastic mountaineering boots. Below the snowline we wore much more comfortable leather walking boots, Scarpa being the best.

Wild Country provided Goretex pile lined mittens, which had often proved invaluable in the Himalaya. However, in the South Georgia climate, traditional woollen Dachstein mits were probably more suitable.

### COOKING

In the interests of cleanliness and simplicity, we decided to do all our cooking on gas. Taymar provided four Epigas burners, two of which we fitted to Markill hanging stove sets - ideal for tents and snowcaves. Taymar also gave a generous discount on gas cylinders. We took two hundred 250g propane/butane cylinders and seventy 500g pure butane cylinders. For much of the time, at sea level, we did not have to melt snow, and two hundred 250g cylinders would have been sufficient for the three months.

The 250g butane/propane mix cylinders proved far more efficient than the larger pure butane ones. However, there is a drawback: the problem of disposal. The small cylinders are extremely tough and require a lot of burning (to remove preservative paint) and hammering flat, before they are ready for biodegradable burial.

### PACKAGING FOR TRANSPORT

All the expedition food and gear, bar our weight allowance on the flight, had to be packed safely for transport on HMS Endurance through the tropics to the South Atlantic, a potentially wet crossing of Cumberland East Bay, helicopter drops in Royal Bay and several weeks storage around the rat-infested coast, subjected to rain, wind and snow.

Bowater Industries plc provided the perfect answer - Harcostar 120 litre plastic storage drums, with sealed lids secured by sprung metal hoops. A total gross weight of 2830 lbs was delivered to HMS Endurance, all packed, apart from skis and marker wands, in 35 barrels. Another 500 lbs of film and personal gear was later taken out on the flight to Mount Pleasant, bringing our total weight up to about 1½ tons.

### MOUNTAINEERING EQUIPMENT

The routes we climbed did not require much technical gear. However we were very glad of the Mountain Technology snowstakes, used mainly for supporting tents, but also providing an anchor to enable Freeman-Attwood and Griffin to leave the summit of Mt Kling. Mountain Technology ice axes and

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hammers were also ideal, being light, beautifully designed and suitable for all types of terrain.

For glacier travel we used either snowshoes or alpine skis with Silvretta touring bindings and skins. Skis are of course faster and more fun than snowshoes, if you know how to use them, and they made the eleventh hour dash to Mt Carse possible.

In retrospect, if we had been equipped with sledges and a heavyweight pyramid tent, we might have spent less time in a snowcave and more time travelling on the glaciers at the southern end of the island, but that strategy would have entailed a lot more expense and a greater weight of gear to get up to the glacier in the first place. Given the uncertainty of transport arrangements and the knowledge that, whatever happened, we would have to get ourselves back to Sorling Valley, we opted for a compromise.

### FOOD

The great joy of sea transport was that when it came to choosing food for the expedition, we were not constrained by a strict weight limit. Our diet resembled a normal home diet, except for the obvious lack of fresh fruit and vegetables, which had to be substituted by tins.

It would be tedious to describe our supplies in detail, but we would like to detail those donors who made generous contributions, reducing considerably the actual cost of the expedition.

Marks & Spencer donated £250 worth of groceries, which included their excellent biscuits, jams, pickles, instant mashed potato that was hardly discernible from the real thing, the best Christmas puddings we have ever tasted, wine boxes and some excellent champagne.

The only other alcoholic nourishment was Famous Grouse whisky, donated in generous quantities by Matthew Gloag. Apart from being a perennially popular evening tippie, it was invaluable for making whisky butter to accompany the Christmas pudding. (The main course for Christmas dinner was Fortnum & Mason Goose Quennelles).

Cheese is always a popular ration on expeditions and we were very grateful to the Danish Dairy Board for asking MD Foods Ltd. to donate two gigantic whole Samsøe cheeses, which survived the voyage through the tropics and much ferrying around on the island, to provide delicious nourishment throughout our stay. Unfortunately the Danish Dairy Board no longer import tinned butter to Britain, but we managed to track down a supply of Dutch tins at Harrods. We baked our own bread at Royal Bay, Sorling Valley and in the snowcave.

Simmers Biscuits donated oatcakes and a selection of their excellent sweet biscuits. Daniel Quiggin & Son provided several cases of chocolate-coated Kendal Mintcake.

One of the most valuable contributions was a huge selection of tinned foods from John West. Sardines, herrings

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and shrimps provided the basis for many of our main meals; asparagus, peas, tomatoes, sweet corn and runner beans were used hot and in salads; the tinned fruit, although impractical in weight-to-nourishment terms, was a nice luxury. Another source of main meals was a generous supply of pre-cooked, foil-sealed meals from Bernard Matthews, which were extremely popular.

### METEOROLOGY

Although data has been collected over the years at Grytviken, by BAS and the army, there was no formal data available for the Southern Ocean Mountaineering expedition, based as it was on the Ross Pass. The pass is arguably the worst wind tunnel on the island and the weather there confined the expedition to the snowcave for lengthy spells. For instance, between January 5 and January 14 wind and visibility were continually bad, except for brief respites on two afternoons.

These effects are partially localised and there is no doubt that the weather on the Barff Peninsual, where we were based in February, is better. However, reports from the garrison and comparisons with earlier expeditions suggest that January 1990 was particularly bad all over the island.

On Boxing Day the wind recording instruments at KEP went off the scale and the weather officer estimated gusts of 140 knots. Other experts have questioned this, but it can be said with certainty that visitors to South Georgia should expect unusually violent winds with frequent gusts of over 100 knots.

At the Ross Pass the barometric pressure fluctuated almost continually, often with little apparent relation to the weather, perhaps because the depressions which circle the Southern Ocean follow so closely on each others heels. However, there was one discernible pattern: on the two occasions when we had sustained good weather (1½ days for Vogel Peak; 3 days for the Kling/Carse sortie) the barometer remained comparatively high and the wind remained in the east, with cloud piled up against the eastern side of the main range. As soon as the wind veered back to the west the weather deteriorated.

In summer the night temperature above 5000 feet can drop to about -10c. At our snowcave height of 2000 feet the air temperature usually hovered around zero, although on some days it was much warmer. Snow falls right down to sea level during the summer, but it rarely settles that low for more than an hour or two.

### MOUNTAINEERING CONDITIONS

We never managed to climb on the eastern, leeward, side of the range, where there may be windslab snow conditions. On the western side, on the rare occasions when it was possible to stand up straight and see where you were going, conditions underfoot were superb, with safe, well compacted 'neve' snow.

## SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

Above 4000 feet, all the ridges are encrusted with snow and hoar frost 'mushrooms', which provide entertaining climbing.

### ENVIRONMENT

It is not the purpose of this report to discuss the complex issues of Antarctic conservation versus exploitation. Suffice it to say that it was a great privilege to visit an island that is one of the richest wildlife sanctuaries in the world but which has been markedly affected by man's activities. The fur seal was hunted to supposed extinction in the nineteenth century, before making its dramatic comeback in recent years; the whale stocks were virtually destroyed between 1905 and 1965; the ecology of the coastline has been slightly altered by the introduction of rats and rheindeer; and now the vital fish stocks of the surrounding waters are threatened by factory ships, although it is heartening to hear that the Foreign & Commonwealth Office is now taking serious steps towards controlling over-fishing.

To the casual eye, South Georgia still seems a pristine sanctuary. However, we were sad to find on the eastern shore of Cumberland East Bay a good deal of flotsam emanating from the army garrison at KEP. Now that a proper incinerator has been installed at KEP, perhaps this will stop. Large plastic containers were also dumped on the shore by visiting scientists. One small but poignant example of wildlife threatened by industrial garbage, was the fur seal we found at St Andrew's Bay with plastic packaging band embedded deep in its torso. Luckily we were able to cut the band loose and, after the initial shock at being stood on by three knife-wielding mountaineers, the seal seemed happy.

Expeditions bring their own pollution and we tried to dispose of litter as carefully as possible. The Ross Pass garbage was laboriously burnt, flattened and reduced to one sack of remains for dropping down a crevasse. At Royal Bay and Sorling Valley all plastic (which should be kept to a minimum), paper and tins were burnt, crushed and buried deep between layers of acidic peat, which quickly rots the metal. This sounds easy but takes time - particularly the chore of cutting turf and digging 30 inches down into the underlying peat and gravel.

The only remains we did not destroy were three old pairs of skis, which were dumped in a deep crevasse (after saving the expensive bindings), and the plastic storage barrels that we were unable to carry back from Royal Bay. We left them outside the hut, weighed down with boulders. They will remain in near perfect condition for a few years and we have asked the army or BAS to collect them for their own use when they next have a boat or helicopter in the area.

## SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

### SELECTED HISTORY OF EXPEDITIONS

- 1775 First known landing on South Georgia, by Captain Cook
- 1786 Start of sealing, which was to be the main motivation for many 19th century Antarctic voyages.
- 1882-83 International Polar Year Expedition. German scientific expedition based at Royal Bay.
- 1902-3 Swedish Polar Expedition. The main party, led by Otto Nordenskjöld, was involved in one of the great Antarctic epics on the mainland peninsula. Meanwhile, the expedition's ship, The Antarctic, captained by Carl Anton Larsen, carried out survey work on South Georgia.
- 1904 The start of the whaling industry. C.A.Larsen established the first whaling station at Grytviken. The whaling industry continued here, and at five other stations, until 1965.
- 1916 Shackleton's Rescue Mission. Shackleton's expedition had called at South Georgia in 1915, en route for the attempted Antarctic crossing. Eighteen months later Shackleton re-appeared at Stromness, having survived the sinking of the Endurance, the trek to Elephant Island, the 800 mile voyage from there in an open boat, followed by the first ever crossing of South Georgia.
- 1928-29 Kohl-Larsen Expedition. Ludwig and Margit Kohl-Larsen made some of the first explorations of the island's interior, in particular the huge glacial plateau named after them.
- 1946-47 Niall Rankin's Ornithological Expedition.
- 1954-55 British South Georgia Expedition. George Sutton led the first actual mountaineering expedition to the island. The only major peak climbed was Brooker, but much useful exploration was achieved.
- 1951-57 The South Georgia Surveys. Four expeditions organised privately and led by Duncan Carse. Helped generously by sealing boat crews, Carse was able to land at points all round the island and set off on prolonged sledging journeys, making a comprehensive survey of the interior.

## SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

- 1961 Duncan Carse's solo sojourn at Undine South Harbour. An experiment in living alone. Carse's hut was smashed by a freak surge wave, after which he had to live alone for another 116 days in a tent, before making contact with a sealing ship.
- 1964-65 British Joint Services Expedition. First ascents of Mt Paget and Mt Sugartop. Detailed survey of Royal Bay area.
- 1968 Ice patrol vessel, HMS Endurance comes into operation.
- 1969 British Antarctic Survey (BAS) begins operating at King Edward Point.
- 1980 French Yacht 'Basile'. Second ascent of Mt Paget and the first from the north - from Nordenskjold Glacier.
- 1981-82 British Joint Services Expedition. From a base at Royal Bay, the expedition made the second ascent of Mt Brooker, crossed the Ross Pass and repeated Carse's sledging route to Drygalski Fjord. An attempt on Mt Carse was defeated by bad weather.
- 1982 Argentine Occupation of King Edward Point. Cindy Buxton & Annie Price penguin survey at St Andrew's Bay.
- 1985-86 New Zealand Expedition. From a base at Royal Bay, scientific work was done and minor peaks climbed.
- 1988 Christian de Marliave ('Criquet') landed at St Andrew's Bay by Damien II and makes solo first ascent of Nordenskjold in just two days.
- 1989-90 Southern Ocean Mountaineering Expedition. First ascents of Vogel Peak, Mt Kling and Mt Carse.

For a comprehensive history of all expeditions to the island, see the definitive textbook:

The Island of South Georgia by Robert Headland  
[Cambridge University Press 1984]

## SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

### ACKNOWLEDGEMENTS

#### FINANCIAL SUPPORT

Barclays Bank  
British Mountaineering Council (Sports Council Grant)  
Mr Peter Clarke  
Colonel Henry Day  
Kronospan  
Mercury Rowan Mullens Ltd.  
Mount Everest Foundation

#### EQUIPMENT AND SUPPLIES

Bowater Industries	Harcostar plastic storage drums
Camera Care Systems	Camera cases
First Ascent	Asolo boots. Thermarest sleeping mats
John Gau Productions	Kodak 16mm cine film stock
Matthew Gloag & Son	Famous Grouse whisky
Karrimor	Baltoro & Alpiniste protective clothing
Kodak	Kodachrome, Ektar & Tmax still film
Marks & Spencer	Champagne, wine & assorted groceries
MD Foods	Samsoc cheese
Bernard Matthews	Pre-cooked meals
Mountain Equipment	Down sleeping bag & Goretex windsuit
Mountain Technology	Ice axes & snow stakes
Pietro Negrone	Salami and Parma Ham
Daniel Quiggin & Son	Chocolate coated Kendal Mint Cake
Rowntree Mackintosh	Yorkie bars
Simmers Biscuits	Ginger biscuits & oatcakes
W.H.Smith	Books
Taymar Ltd	Epigas butane/propane mix
John West	Tinned fish, fruit and vegetables
Wild Country	Goretex mittens, tents
Zanzibar Productions	Aaton 16mm film camera and accessories

#### TRANSPORT, ACCOMODATION & ADMINSTRATIVE SUPPORT

His Excellency W.H.Fullerton, Governor of the Falkland Islands, and Mrs Fullerton.

General Paul Stevenson CBE, Commander of British Forces in the Falkland Islands, and Mrs Stevenson.

Captain Norman Hodgson RN, the officers and crew of HMS Endurance.

Major Matthew O'Hanlon, Commander of the South Georgia garrison. The Royal Marines, the Royal Engineers and the Green Howards.

Captain David Pet, the officers and crew of RFNA Diligence.



## SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

THE OTHER INDIVIDUALS WHO HELPED SO GENEROUSLY TO MAKE THE EXPEDITION POSSIBLE, WITH APOLOGIES FOR ANY UNINTENTIONAL OMISSIONS

Mr Norman Abbot  
Mrs Meg Arrol  
Captain Nicholas Barker RN  
Colonel John Blashford-Snell CBE  
Major Anthony Bleakeley  
Mr Christopher Bontein  
Mr Chris Bradley  
Ms Geraldine Buckley  
Mr Duncan Carse CBE  
Lord Chorley  
Mr Cochrane  
Mr Matt Dickinson  
General Fagan MBE  
Ms Elaine Fraser  
Mr Hamish Fulton  
Mr John Gau  
Captain Ian Gemmell  
Mr John Greyburn  
Ms Rosie Grieves-Cook  
Mrs Jan Griffin  
Mr & Mrs Griffith  
Snr Giuseppe Gorradi  
The Earl & Countess of Gowrie  
Mr Peter Holloway  
Mr Luke Hughes  
Mr Martin Kaindle  
Colonel Douglas Keelan  
Major Brian Kerlake  
Mr David Lamb  
Mr David Lyon  
Mr Hamish McDougall  
Mrs E. Mostyn-Owen  
Ms Kirsty McGill  
The Hon. Janet Needham  
Mr John Netherwood  
Ms Jackie Palmer-Jones  
Mr I. Parris  
Captain Pat Parsons  
Mr Tom Price  
Mr Lars Poulsen  
Mr John Robson  
Mr Bill Ruthven  
Ms Siobhan Sheridan  
Ms Cally Southern  
Mr John Stevenson  
Ms Ruth Townsend  
Mr Alan Tritton  
Sergeant John Twist  
Mr Rodney Tyler  
Dr Mark Upton

SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

Sergeant Neil West  
Ms Joe Williams  
Captain Tug Wilson  
Mr Nigel Winser

FILM

Within three days of returning to Britain, Kees 't Hooft was at work in the cutting room at John Gau Productions, where he has been ever since. Negotiations are still in progress, but we hope that the excellent final version will be shown on Channel Four during the spring of 1991.

SOUTHERN OCEAN MOUNTAINEERING EXPEDITION

**ACCOUNTS**

**EXPENSES**

	£	£
<u>TRAVEL</u>		
Return air fares to Mount Pleasant x 5	5900	
Delivery of supplies to Portsmouth	90	
Other UK travel	180	
Living expenses at Mt Pleasant, on HMS Endurance, at KEP and on Diligence	360 <u>6530</u>	6530
 <u>EQUIPMENT</u>		
[tent, snowshoes, ski gear, snowstakes, shovels, cooking pots, stoves, personal gear, mending kit]		2800
 <u>SHORT WAVE RADIO</u>		
		120
 <u>MEDICAL SUPPLIES</u>		
		350
 <u>GAS</u>		
		261
 <u>FOOD</u>		
		950
 <u>ADMINISTRATION</u>		
Letter paper	150	
Telephone	250	
Postage	120	
Photocopying prospectus, maps etc.	120	
Postcards from South Georgia	130	
Photos etc. for presentations & Sponsors	250	
Production and distribution of report	250 <u>1270</u>	1270
 <u>INSURANCE</u>		
		653
 <u>FILM</u>		
Pre-expedition video costs	250	
16mm film stock	650	
Video and audio tape	250	
Protective cases	120	
Batteries	200 <u>1550</u>	1550
 <b>TOTAL EXPENDITURE</b>		 <b>14304</b>

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INCOME

Barclays Bank	750
British Mountaineering Council (Sports Council)	500
Mr Peter Clarke	1000
Col. Henry Day	50
Kronospan	1000
Mount Everest Foundation	1200
Mercury Rowan Mullens Ltd.	100
	<hr/>
	4600
Members contributions	9704
	<hr/>
<b>TOTAL INCOME</b>	<b>14304</b>
	<hr/>



**REXEL**

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