

The Sandalwood Box

(Part 3)

FROZEN IN TIME

**(Three years with the Falkland Islands
Dependencies Survey Years 1956-59)**

by

Peter Gibbs

I know that it is today, and that there was yesterday, and will be tomorrow;
But up there, where the hills are deep in snow, there is eternity
That is out of all reckoning and telling.
You can't measure that proud white beauty,
But you can live with it for a little space,
That will not belong to today, or yesterday, or tomorrow,
But to the time beyond time.

(poem by Margaret Cropper)

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The Voyage South

We Fids were taken on as Supernumery Crew and given tasks such as holy-stoning the decks, painting the ship and helping in the galley to prepare and serve meals. It helped pass the time and get to know one another. The first morning (27th November) Bryan Foote (surveyor) and I were on meal serving duty, which was an easy task as few had found their sea-legs. In between duties there was plenty of time which I spent trying to get familiar with field astronomy notes, writing letters and reading. With the clear night skies as we reached the tropics, Bryan Holmes and I spent evenings with the star chart recognising the constellations and noting how the Pole Star sank lower in the northern sky as we already reached the tropic of Cancer by 2nd December.

For the more energetic, feeling the need for exercise just a week after our departure, we held a competition to see who could traverse around the mess room without touching the floor; another was to jump up and catch the main horizontal boom and try to swing on top of it. A tennis-quoit net was rigged but the quoits were soon lost overboard. Skipping ropes provided excellent exercise. We crossed the equator on the 8th and on the 10th Bryan and I made out the Southern Cross just clearing the horizon. It was an exciting signal of progress as the new John Biscoe on her maiden voyage did a steady 12 or so knots. She was 'ice-strengthened' with reinforced steel plates, a worthy successor to the wooden Old John Biscoe. One cannot deny progress, but I did envy the spirit of the Penola crew who sailed south to Grahamland in 1934. There was a library in the Officers Mess, to which sadly we Fids were denied access by the second officer, John Morely, until we were south of Stanley. But I had read *Southern Lights* by John Rymill and some years later Henry Wyatt gave me a personal copy. The Penola was built in 1905, an old French fishing schooner, 103 feet on the water line and 24 foot beam with gross tonnage of 130 tons.

The Biscoe's engines were proudly maintained by the Chief Engineer who was a character like Kipling's McAndrew.

"From coupler-flange to spindle-guide I see Thy hand, O God -
Predestination in the stride o' yon connectin'-rod."

He came up alongside me on the rail as I was watching a huge tropical cloud build ever bigger. "Looks like we might get a bumpiro, Pete" he said. "What's that?" I asked. "It's what they call these tropical storms off Brazil and you'll know all about it!" He left me to check the engines but apart from some distant lightning we had a smooth passage.

On the 14th December we saw our first albatross although still two days out of Montevideo. We had a day and a night at Montevideo and an interesting and revelling time it was. George McLeod our mountaineer recruit from Aviemore was on the quayside, I presume he had flown down. The doctor, Henry Wyatt, who had hidden himself in his cabin most of the way south so far, came much to life as he,

Dick Brown, Jerry and I sampled thick tender steaks and sweet Uruguayan wine in several eating houses and bars. Dick had a talent for playing boogie on the piano. We frequently moved on without paying our dues and usually at speed. I lost them on one of these chases and spent what was left of the night on a park bench. This outing loosened an entertainment chord in our 'Doc' as Henry Wyatt came to be called. The night we sailed on the second short lap to Stanley he came into the Fiddery (mess) with some dixieland records and we soon had a very happy time dancing and jiving through all the ships corridors behind Doc and the wind-up gramophone playing Chimes Blues and other dixieland numbers. I was to hear much more of these in the second year when he joined us at Stonington. They evoke memory like nothing else.

As we neared Stanley numbers of Petrels, Skuas and Albatrosses followed in the wake. Coming up the estuary on the morning of the 22nd the Scottish-like highland scenery delighted George McLeod and Vince O'Neill who came from Stornoway. Having been kitted out with two-years' worth of cold weather clothes and base windproofs including 24 pairs of close-knit thick woollen grey socks (on the assumed basis of one pair per month!) and myself delighted to find that sizes to fit my length were available, Bryan, George and I enjoyed a good walk out to see some penguins. As it was a starry night leaving one of the pubs at midnight I took a sleeping bag out of town to test its waterproof qualities and digest the news that we would sail on Boxing Day to rendezvous with the Britannia at Base W on the Loubet Coast then escort HRH Prince Phillip and his officers back through some of the bases, returning to Stanley about the 7th January 1957. What an exciting coincidence that Prince Phillip in his tour of the Pacific had decided to see for himself this outpost of empire and risk taking the royal 'yacht' into ice-strewn waters.

The cathedral matins was only attended by some 15 people. Perhaps this reflected the late night welcome the townspeople had given us. Bryan, Henry and I climbed Mount William and found some short slabs for rock climbing. In the evening I met the resident doctor Rob Slessor who had been one of the original Operation Tabarin members at Stonington. He and I discussed the route up the Northeast glacier from his recollection. Also at his house was Crawford Brookes, an American observer going south on the Biscoe. The midnight mass was fully attended by locals and Bryan and Dave Statham. Presents were given and received by the lucky few - from Hugh Noble a box of chocs, from Bryan some Sobrani cigarettes and from John a box of cigars. I gave Henry my copy of *Omar Kyam* and to Bryan *The Donkey* and John *The Snow Goose* and to Vince a box of cigars. (It seems as if my simple reading matter had been severely depleted already).

We sailed south into stormy seas the waves coming green over the bough. Bryan, Vince and I were attracted by the conditions and climbed along the foredeck until soaked by a wave right over us and furiously ordered off the deck from the bridge, and rightly so. The Polar library was at last unlocked by Morely since Johnny Green (Sec Fids) had spoken of its existence in the ward room, provided especially for the use of Fids. It was a bit late to discover but I took out Shackleton's *South* Volume 1 and the Antarctic Pilot for starters. Next day we crossed the Convergence with

the air temperature rapidly falling to 34 F and the sea temperature to 33 F. The issued duffle coat was most welcome as we gazed forward watching for our first berg. They came into sight next day and Bryan was the first to sight land, Brabant Island, which formed an amazing facade of steep ice and rock rising to 5000'. Most of us were up on deck in the afternoon watching this fairy-tale landscape drift by. Henry, by my side, said "Pete, isn't it perfect I can't see a germ anywhere". It was indeed a sterilized scene unreal in its beauty and the weather was rare perfection with not a breath of wind, visibility to 100 miles and ranges of light blues and greens below the glistening white tops of the bergs. Distance was difficult to judge in the clear visibility that pushed features into the same plane whether ten or fifty miles off. Anvers Island came into view and we anchored in a magnificent bay backed by a 100' ice cliff above which a domed glacier sloped away. The evening sun shone full onto this ice reflecting deepening colours. There was a penguin rookery just nearby. A dinghy came out from the base hut steered by a long bearded base leader, Peter Holden. Here we disembarked George McLeod (Mountaineer), Bryn Foote (surveyor) and Denis Goldring (geologist). With no further ado we upped anchor and headed for base 'W' down the Loubet Coast for our rendezvous with the Duke. 'What a magnificent impression of calm and serene beauty this first sight of the Antarctic has been', as I wrote in my diary, though not unaware from all I had read that we would experience its fiercest moods, which for most of the year on the Bellinghausen west coast side of the peninsula are more normal.

There was little sleep that night as daylight reigned and our passage took us down some of the most scenic coast. The weather remained perfect - no clouds, brilliant sun as if arranged to royal order. The summit of Mount Francais on Anvers (9060') dropped away. We entered Martha Strait in the morning then had our first view of Adelaide Island and the mainland south of Cape Ray. Entering pack ice the Biscoe shuddered as she bashed a path through quite heavy floes. Captain Johnson, very experienced in ice, enjoyed putting her to the test and choosing the best passages. A number of Weddel seals were basking on the floes and had we not been keeping to a time schedule he would have stopped to take some for the dog food supply. He cast anchor some quarter mile off Lent Island¹ (Base W) about midday. The motorboat took a party of us ashore to be met by a chap who had not cut his hair or beard for two years, possibly John Thorne. The island is small, some half mile square. Dogs were tethered over a large part of it and howled with excitement. I was impressed by the comfortable and well-kept hut, which had been built one year before. Its situation is superb scenically, but being an island in Lallemand Fjord, dependant on sea ice for sledging. One looks across to the high mountains of the mainland and impressive rocky peaks and glaciers coming down from Cape Ray, southwards to the Brynd peninsula² across which lay Marguerite

¹This name did not last long as Bill Sloman later discovered that it was one and the same island discovered and named Detaille Island by Charcot on his Pourquoi-Pas? Expedition 1908-1910.

²Later named Arrowsmith Peninsula after the following Governor

bay, and the view arrested by the twin 7000' peaks of Mount Gravier, and Liard Island rising to some 5000'. The fjord was filled with great bergs and floes. One tabular berg was estimated at some six square miles in area and had apparently kept breaking up the fjord ice with its movements. I noted that it would take ages to absorb this unreal scenery, which to me was magnificent in every detail.

There was a penguin rookery on the island, which we visited, many still on their nests with young. It was extremely warm with the reflection and glare off the snow. Sadly, I never recorded the number of Adelies estimated on this rookery.

So we landed the next morning to clean up the base and environs to look ship-shape for the Duke's visit on the morrow. By midday we thought it all looked tidy enough, so we excused ourselves to try some ski practice on skis borrowed from the base. It was overcast but calm and felt warm at 34 F with no need to wear gloves and comfortable in shirt sleeves. Being Old Years night there was an impromptu party on board at which Henry (the doc) gave a rendering of 'The Hippopotamus', 'Noah's Ark' and 'Lord Nelsing'. We sailed at midnight for the rendezvous off Adelaide island, passing with some difficulty through packice now more densely packed. So ended a year that had taken me to the Arctic and Antarctic and a prospect of two fulfilling years ahead surveying some of the blank spaces.

New Year's Day 1957 saw the Britannia lying in splendour with her enamelled shining sides in clear water some way off Adelaide island. Her boat brought HRH the Duke and his entourage over to the Biscoe. This included the Governor, Sir Raynor Arthur and Sir Raymond Priestley. As the Duke stepped onto the Biscoe's deck various eager Fids clicked their cameras. He pointed out to Nigel Proctor "Your camera case is blocking the lens, better take it again!". He asked to lunch with the Fids chaps informally and I was fortunate to be at the same table and found his enquiring conversation modest and interesting. It was a four-month round-the-world tour and clearly this was a couple of weeks when he need not stand on ceremony. He was relaxed, doing some painting under the professional eye of Mr Edward Seago the appointed royal artist, and generally thoroughly enjoying the tour. After lunch Mr Seago very kindly took me aside on deck and gave me some most valuable tips on using my watercolour box, a present from JM. In a few deft strokes and mixes he produced a sketch of a seascape with bergs and floes leaving the white of the paper for the sunlit white ice and adding the range of blues and greens above and below the waterline. This sketch later adorned the Blaiklock refuge hut but, regrettably, got ruined in the repeated freeze and thaw. When the party landed at 'W' he did three quick oil paintings in the space of an hour and a half. The base inspection accomplished, and re-joining the Britannia, we headed towards the Argentine Islands, Anvers and the Danco Coast to visit these bases.

The weather stayed good for this second day of the royal tour and all four bases were visited as planned. First 'F' the Argentine Islands where David Simmons and Graham Rumsey left us. I met briefly the doctor, Sandy Imray, whom I was fortunate to sledge with later in the year from Horseshoe Island. We cruised

through the Lemaire Channel to Anvers island base 'A' where Jack Tinbergen left us, very impressive and less than half a mile wide, or so it seemed, with steep ice falls on either side. Base 'O' on the Danco coast was the most isolated looking, a small hut in the snow and looking out on an incredible scene of Antarctic mountains to gladden the hearts of Vince O'Neill and Graham Hobbs who were put ashore here. There the royal party re-joined the Britannia and left us, both ships heading back to Stanley.

Back in Stanley there was talk of a dance for the Britannia crew but Henry, Dick, Jerry, Hugh and I adopted a private plan going across the bay in the Biscoe's motorboat, thanks to Jerry the Bosun, and landing near the floating wreck of the Great Britain. Dick and Jerry had got supplies from the Biscoe's larder and also a .22 rifle. There was plenty of driftwood and stones for a crude shelter and the supply of food was augmented with two geese that I shot. (To my chagrin I discovered later from Doc Slessor that they were protected Flightless Rail!). We went climbing on some slab outcrops. As we were cooking our meal in the late afternoon light in between a shower or two, a helicopter came down and landed nearby. We wondered a bit guiltily if we were wanted men. Out stepped two officers of the Britannia. "May we have your kind permission to shoot hares on your land, Sir?" said one of them. We called their bluff for just a moment longer and then shared a laugh and a mug of tea.

The structure sheltered all five of us alright and we had a rare adventure next day like schoolboys on an outward-bound initiative course. The competition was to reach the wrecked Great Britain, a good couple of hundred yards offshore, on rafts. Henry and I made one that started sinking just as we reached the wreck. He was thrown into the water and swam to shore in a cold state. Hugh reached the wreck on a single large piece of timber. Jerry's bicycle-type raft never floated at all. We gorged on hare left by the shooters. In the afternoon I walked back to Stanley around the coast, about 15 miles, but slow where the Murrell river estuary required a long deep wade.

There followed three days of loading and offloading stores. It was discovered that a leak had allowed three feet of water to accumulate in the hold having a quantity of cement for a new hut at base 'N' and all this had to be removed. We were in Stanley until the 17th January while stores and a program for the relief of the bases was prepared. There were some official engagements - an interview with the Colonial Secretary Denton Thomas, one with Frank Elliott about the program in Marguerite Bay. It was definite that this year we would be working North into the peninsula separating Horseshoe from 'W' and should this survey go well this year it may be possible to re-establish a small party on Stonington to work from there into the Neny Trough next year. I felt he was overcautious avoiding the responsibility of rash encouragement. After a game of squash, I wrote to Petra Leay at the DCS asking her to press the priority of the Neny Trough for next season. I had a happy day on my own on the 13th walking via Rookery Bay up to the wreck of the 'Elizabeth' which I sketched with Port Stanley and Mount William in the background. Grateful for an invitation to Doc Slessor's house for a musical evening I declined, to write letters back home. The day before sailing the 'Biscoe Kids'

played 'Stanley Selected' at soccer and lost. In the evening Frank Elliott was 'at home' to Fids and showed the film 'Scott of the Antarctic' starring John Mills as if to imbue some last-minute heroic resolutions. I noted that though I had seen the film at least four times before I still found it just as moving. So once again we sailed South on the 17th with only a few able to turn up to meals while I read Ponting's '*The Great White South*'.

We relieved Admiralty Bay on King George Island first, over three days, as it had to be done by boat. There had been an accident the previous year when one man drowned. I could see, when some base personnel departed from the Biscoe late at night, the risk of mixing a bit of drink with a choppy sea and a small dinghy. The grave of Eric Platt, a former Base Leader, was marked by a cross. He had died of a heart attack in 1948 sledging over the island. Other accidents were to take two lives of contemporary Fids in 1958. David Campbell, a later summer visitor in November 1982, and two summers later working as a biologist for BAS wrote a truly excellent description of Admiralty Bay, its whaling and sealing history and the super abundance of the chain of marine life in these waters from the krill to whales, in the book '*The Crystal Desert*'. Here I met the Huntings surveyor, Jim Rennie, one of a team of five living in the old base hut while they fixed ground control for the contract of photography being flown by Huntings from their base at Deception Island. Indeed it was controlling the southern limit of this photography that we surveyors were going to work at by triangulation from Blaiklock Island this year. Another highly recommended book was written forty years later by Peter Mott the expedition leader of the Huntings team called '*Wings Over Ice*' giving some excellent aerial views. We much enjoyed the visit taking any opportunity between duties to climb the ridge and practice skiing.

At Hope Bay I was pleased to see again Lee Rice, the Irish surveyor of ever cheerful temperament, who was appointed base leader here. Included in his team was Wally Herbert doing his second year. He was to become a professional polar explorer and write books. His book '*A World of Men*' describes his experience with FIDS at this time and also his following experiences with the New Zealand Antarctic Survey in the Queen Maud Range. We landed in drifting snow with the temperature cooler at 26F and appreciated the homely atmosphere of the hut with its large combined dining-sitting-living room. Henry and I pored over Julian Taylor's detailed dog report summarising his 1953 work. Henry was to continue work on dog feed trials as well as human physiology in cold climates. We skied to nearly midnight, then sailed to the Refuge Hut in Duce Bay through the Fridtjof Sound. We pushed through thick ice to come alongside solid ice with 80' depth of water below to which we set ice anchors for offloading supplies. Close by was a deserted Argentine hut with 15 dogs still tethered, which we rescued aboard to deliver them to their owners near Hope Bay. Why they had been abandoned was not recorded but certainly seemed very callous. On our return through the sound we stopped to shoot ten seals for the Hope Bay dogs. While several of us were on the large floe doing the dirty work, the Biscoe turned about and by some misunderstanding of a bridge command, came full ahead into the floe, splitting it in two and separating us into two parties as we wondered, a bit startled, if this

was a practical joke by Bill Johnstone. We sailed next day taking ten dogs destined for Base 'W', including two delightful pups that I spent a while with.

Now we did not bypass Deception island. The superb sheltered natural harbour is the drowned mouth of a volcano whose rim rises up in steep slopes of black volcanic sand and crags to about 1500', except in the one spot where the sea had breached the rim with an entrance a few hundred yards across. Our visit was just a few hours but time enough to walk back to this entrance and look down the 500' cliffs busy with nesting skuas making a terrific noise. A recently wrecked Argentinian whale catcher in the entrance was the object of a looting party from the Biscoe. Perhaps due to the heat of the black sand, the general appearance was more sub-Antarctic lacking glaciers and icefalls. Huntings Aerosurvey had their base here besides the FIDS base. Peter Mott talked to Angus Erskine and me saying that they had succeeded in flying continuous strips of photography as far south as Horseshoe Island covering most of the Brynd peninsula and part of Adelaide island. This will quite alter our survey method from dogsledge traverse to triangulation with identified points on the photography. He outlined general requirements from his wide photogrammetric experience. We picked up six of the Fids chaps here, four of them including Percy Guyver, our new Base Leader, for Horseshoe Island Base 'Y'. Huntings laid on a drinks party that carried on aboard ship as we were preparing to cast off. To delay things further Henry Wyatt commenced to climb down the anchor hawser wire and had to drop off into the cold water when his arms tired. He was quickly pulled into the scow. He was of course an exhibitionist to do this stunt in front of all Fids, but at the same time he was medically interested in the effect of freezing water as we were to find to our discomfort later in his trials.

We reached Port Lockroy next day the 25th January, little unloading to do we had some relaxed time in the hut and enjoyed the display of light on Mount Francis (9060'). The little island on which the hut is placed is connected to the much bigger Wiencke island by a strait and offers peaks rising to 5000' or so above a sloping ice piedmont. Henry and I borrowed skis and ice axes and the dinghy, and rowed across the strait, skied along to the foot of a small peak some 1800' high and managed to climb part of the way up via a snow gully. We did not have long as the ship was to sail but it showed how slow climbing was with the care needed at every step on loose frost-shattered rock. We sailed at 3.00 pm for Anvers island reached in time for supper and it was good to find that George McLeod and Bryan Foote had settled in well.

They had an excellent practise ski slope behind the hut. Henry and I skied most of the afternoon, joined later by Nigel Proctor and George McLeod we went on until 11.00 pm. Practice paid off with the thrill of finding that I could succeed in a stem christie more often than not and jump from the small petrol box ramp.

We reached the Argentine islands early on the 28th and spent most of the day offloading hydrogen cylinders for their use in radio-sonde balloons. It was later from these upper atmosphere studies that Joe Farman produced the world-shattering environmental report that an ozone hole was growing over Antarctica.

He was based here this year and the next as a geophysicist. Henry and I again indulged in some masochistic swimming in the little inlet called Stella Creek. We thought better of swimming right across it to visit the old base hut as brash ice was thick in the middle but stayed in long enough to write in the diary "it seemed one could stay in at least five minutes without likelihood of cramp and felt splendid when we came out".

As we voyaged down the coast from base to base we, destined for Horseshoe, and Angus Erskine for 'W' were eagerly thinking ahead and lost no opportunity of informal meetings with Percy Guyver to plan the year's survey work. Of this more details later. But while Angus was still with us, we went over the photography acquired from Peter Mott, made a mosaic and divided it into his area and ours.

Bryan called me at 06.30 in the morning to join him on the Flying Bridge as we edged into Beescochea Bay past Cape Tuxon to look for a site for his base 'N'. The great bay was crammed with bergs of all shapes and sizes weathered into ice caves and pillars. The 'Old Man' managed to navigate a circuitous course with care through gaps until on the southern side we were stopped by fast ice separating Sphinx island from the mainland. More to test the ice-breaking qualities of the ship than with hope of getting through, he rammed it several times until we stuck in the cut groove, engines reversing for an hour. For us spectators it was very pleasant, glorious sunshine, while I sketched Sphinx island. Released, we skirted Sphinx and Leroux islands and anchored off Sharp point near the Fish Islands. The boat was put over and a party including Bryan went off to investigate.

The requirements were mainland access, rock site, anchorage for unloading, route to the plateau inland. It was very difficult to satisfy all these, on this impregnable coast. The boat party found that a mile of water separated the nearest island from the mainland though as a site the island itself was good. Next we looked at a small outcrop on the coast seen on the photographs, later called Prospect Point. Four of us, Angus, Bryan, John Green and myself set off roped to explore the feasibility of a route inland from this point. We picked a way through a crevassed area getting onto a featureless piedmont. It was warm, visibility was poor and we were not equipped for a night out but at least the start could be managed. Back on board it was decided by Captain Johnson, Bryan and others to site base 'J' here, so three days followed of unloading wet cement, hut sections, sacks of coal and all the boxes of supplies, scow load by load. The weather turned windy. Our busy time stretched to seven days. There were stalwarts like Lofty Wordswick (6'7") who had joined us from Hope Bay after six FIDS years, Doc Sandy Imray tough and sinewy, and others too inebriated to carry a box, colourful characters though they were, like Aussie Chonachie the wireless operator en route to 'W,' who himself had to be lifted into his bunk. A jetty was built. The tractor brought to haul up supplies from the beach broke down leaving 100 metres to carry. The flooding of the hold had done great damage to some equipment as Bryan found when he opened three of the survey cases, a theodolite ruined, note books sodden. Typical Bryan he never complained but he only had one year South and deserved a good one. He levelled up the footings for the hut with his engineer's experience. We were sorry for the nesting skuas occupying a rock outcrop needed for stores and especially

when the pups made a meal of the chicks. We watched with wonder a whale blowing not far off and perhaps too frequently we were silenced by the thunder of calving bergs off the glacier snout. We left the tented party in sleeting conditions but visibility improved next day, the 8th, to enable me to sketch the coast for John Morley's contribution to the Antarctic Pilot.

The same day we reached 'W', a month after the 'royal' visit, and greeted those we now knew, commencing at once with the unloading of a year's supply, all of us that is, except the eccentric geologist Hedley-Wright, who sported a large ginger beard, not unusual, but going with a sports coat, white shirt and tie, which he had worn since the Britannia's visit, cut an odd figure. The sad thing was that he had resigned and could no longer play a part as a team member. Angus Erskine took over the base from Tom Murphy. With few exceptions we worked like slaves to get all unloaded, John Thorne ticking off the boxes as we walked the gang plank. Henry was not in good condition suffering from his 'going away' party in the Ward room the night before when he stood all the officers' rounds of drinks. Angus and I packed up his kit and got him ashore. He said he would apply for Horseshoe next year. (There had not yet been an official notion to reopen Stonington). I left my personal record player as Len Malloney had one for Horseshoe and it would be a pity for Henry not to play his Chimes Blues. So at last on the 9th February 1957 we set sail for Marguerite Bay.

Horseshoe Island

This island was chosen as a base two years previously when the Norsel failed to re-establish a base on Stonington Island, 30 miles to the south, due to heavy pack ice. Stonington in those years was still partly over-ridden by the Northeast glacier affording a route inland regardless of sea-ice conditions. Horseshoe Island offered a good beach and was a sizeable mountainous island with glaciers and frozen lakes but had no such advantage for year-round travel, being dependent on sea-ice for coastal or inland journeys. Had the previous two years been good ice years this disadvantage would not have been noticed; but to the frustration of the surveyor and Base Leader, Derek Searle and the geologist, Jim Exely, they had been mild years which confined them mostly to the island, apart from one brave sortie by boat to reach the mainland and scale the plateau. This time we had in the cargo a small refuge hut which it was planned to erect on Blaiklock Island in the North of Marguerite Bay, this being connected to the mainland peninsula by the Jones ice shelf, would allow field survey and geology to be continued in this still unexplored area all the year round.

On Saturday 9th February 1957 we steamed past features named by the French explorer Charcot in 1909, Laubeuf fjord, Pourquoi Pas island (named after his ship) and Bigourdan fjord. At the mouth of this fjord part blocking it just 3 miles or so from the southern edge of Pourquoi Pas island lay Horseshoe island. We anchored in the shelter of Lystad Bay to ride out the wind and went ashore next morning. Looking across to Pourquoi Pas is a most inspiring sight with the mountains going up to some 4500' separated by individual steep valley glaciers.

We started offloading after lunch and finished by supper time. I met all the chaps at base, Derek Searle the base leader and surveyor, the wireless operator Jean Donnelly a South African who came straight from Cape Town and had worked on the diamond diggings at Oranjemond. I hardly had a chance to speak to him as he was busy 'working' the Trans Antarctic party at Shackleton. Frank Ryan who was to have stayed on with us, had broken a leg six weeks previously and had to go out. I admired Don Atkinson's sealskin kayak skilfully made with waterproof stitching. I went around the 35 dogs and admired Liz's 4 new pups. (Two of these, Alpha and Zeta, were to become members of the Admirals team later and I would know them well). The doctor Sandy Imray, newly arrived from Argentine island base, was to be in charge of the dogs.

After supper at 21.30 feeling in need of exercise I set out to get to the top of Gendarme Peak³ a prominent near peak about 1800 ft high. I climbed fast and was back 1.5 hours later having stopped close to the top where a short steep snow arete would have been risky without an ice axe. From here I could see to the back of Square Bay and looking West beyond Pourquoi Pas to Adelaide Island. I also placed Lagotellie Island where there is a penguin rookery. I felt much better for

³Renamed Searle Peak appropriately.

this outing but noted keenly in my diary that I missed the inspiring friendships I had known in the two Daves which I did not then appear to find in my fellow Fids. The Biscoe only planned to be away two weeks then return and take three or four of us up to Blaiklock Island to work from a refuge hut. So we were very busy getting stores and supplies packed for this. Derek Searle was very helpful indeed in passing on his detailed knowledge, introducing me to dog sledging with his team the Churchmen and accompanying us on ski outings in the evenings for exercise, passing on his knowledge of the southern stars for astro work and in many other ways. The slopes down Gendarme peak were first class. Derek came very close to staying on a third year tempted as he was by the opportunities that the Refuge Hut would give him to explore the Brynd Peninsula country (later named Arrowsmith Peninsula). He would have been a kindred spirit and I know it was a difficult decision for him.

In fact the Biscoe was delayed one week by heavy ice which would have been longer had skipper Johnson not found a passage through The Gullet, the narrow strait separating Adelaide Island from the Brynd Peninsula. On the 5th March she came into Norsel Cove and it was all 'go' receiving mail from home, Liza and David Wilson, offloading 500 bags of coal, loading the stores for the Refuge. Johnny Green (Sec Fids) had decided that only the three of us -Nigel Proctor, John Rothera and myself could be spared from the main base. I was up until 3.00 am writing letters.

Blaiklock Refuge Hut

Next day we steamed up Bigourdan fjord, through the Narrows that separate Pourqoui Pas from Blaiklock island, and decided on a site for the hut half way up the western shore of Blaiklock Island. We had the concrete footings in by the evening. Next day, the 7th, the hut was built under Tom Murphy's supervision, some tongue and groove timber was deposited for us to make furniture, and paraffin and supplies dumped on the beach. While this was going on the bosun took Derek, Nigel, John and me with a depot of dog and man rations in the scow the eight miles up the fjord to the Jones Ice Shelf. There, in a magnificent setting about 100 yards from the ice front opposite the 7500' mountain we later called 'Thor' mountain (for its constantly thundering ice falls three miles or so across the fjord), we left the depot, put on skis and returned to the refuge overland. It took four hours and we had magnificent views down the fjord right through to Adelaide Island in the distance. From the top of the ridge at about 1500' we got a good idea of the layout of Blaiklock island divided as it was into two halves by a glacial valley, the west half, our side, having generally even slopes but the eastern half being alpine and steep with much exposed rock.

Next day, Friday 8th March we raised the Union Jack as the Biscoe hooted and left us to organise a home and advance base for field work, for as long as it took for the fjords to freeze over and allow physical contact with those on Horseshoe island. While getting inspiration from the magnificent view across the fjord to towering 'Thor', Reid glacier, where the midday sun sank lower, west down the

fjord to distant Mount Gaudry on Adelaide island and southwest to Mount Arronax on Pourquoi Pas island, a memorable view to last a lifetime, fixed by all the peaks Sandy and I later climbed and occupied for the triangulation, we set to to make the bare interior furnished and more habitable. Nigel Procter's practical bent was a godsend.

Three weeks later I wrote a description of the hut worth giving in full.

The hut is prefabricated of sections of wall made of tongue and groove pine and a floor and roof of the same pattern. Over the flat slanting roof and the walls rubberoid is nailed. There is a door facing North and two windows at each end facing East and West. It is 10' across and 20' long. The roof slopes from 8'6" to 7'0". The whole thing is safeguarded from strong winds by two hawsers slung across the roof and bolted to rocks.

When we moved in the hut was a bare shell. But with two bundles of T&G planks we (mostly Nigel) knocked up first a sleeping loft, two tables, one for eating and working at and a cooking table, and various shelves that line the wall and are stacked with personal belongings, books, survey equipment etc. Nigel also divided the hut into an inner living room and an outer junk room which is in a perpetual semi-chaotic state. Here hang climbing ropes from the wall, ice axes, crampons, skis stuck in racks, tripods, the survey box, sheepskins, the tool box, sledge repair kit, a tin of paraffin, the sledge pots and pans box, all perishable tinned foods that suffer from frost, sleeping bags, snow buckets and liberally scattered throughout personal belongings, boots and socks hanging from cross beams to dry. Every night I clear a few feet of space in this part of the hut to sleep (while Nigel and John sleep in the loft space).

The hut is very comfortable for three. But being un-insulated the temperature inside rises and falls only a little above that outside and with the opening and closing of the door any warmth generated inside from stoves is soon lost. So, during the past week the temperature inside has remained most of the time below freezing. The result is that steam from cooking rises up to condense and form ice on the ceiling which causes localised drips when the evening stove and heater raise the temperature above 32F.

It drifts a lot on the beach where the hut stands, the drift coming off the ice slope that leads up on the route to the depot. The windswept sides remain clear but the southern end has drifted up to the window which needs clearing every so often.

The living room has been made into a most comfortable place thanks to Nigel's handiwork. There is a wireless corner for the '119' set. He operates every other evening at 21.00 while John and I crank for power. The main table comes out from the window and we eat at it, work on it, draw up maps on it etc.

Basic though the hut was and poorly heated, as we cooked on a primus and the paraffin valor heater could only be lit for at most 6 hours a day for lack of fuel, I personally accepted very happily the rigours of this life and the first night slept

outside the hut having had a most enjoyable ski run with Nigel. Johnny Green had managed to get us three pairs of short mountaineering skis with steel edges and skins.

John and I commenced survey on the 10th as the skies had cleared. We observed stars from the top of the ridge behind the hut and were up until 3.00 am. Next day I built a 6' rock cairn for the first trig point. Nigel came up to join me and together we had a most wonderful ski run back to the hut on a perfect surface. We commenced lashing up a new 12' Danish man-haul sledge which took up much of the floor space of the hut but continued it outside in fine weather the next day. The 12th March was a glorious bright day more perfect weather impossible to imagine. I sketched the surrounding mountains to identify them in survey and John and I observed the midday sun for latitude from the trig point finding the altitude now only 25 degrees. From observations from a short base on the beach we calculated the height of our base trig. Working on the sledge outside after supper in the evening light I noted the view down Bigourdan fjord to Adelaide, a magnificent scene of polar beauty. The fjord is like a lake in which the icy mountains are reflected. When it is calm we hear clearly the rumbling of ice from Reid glacier and the ice fringe which affronts the north side of the fjord.

Next day the 14th and one week after our arrival the weather had changed and was blowing drift. I was impatiently trying to get things ready to leave in the morning on our first sledge outing. This enthusiasm was not shared by John who emerged from his bag very late. However, we did get away to experience the trials of man-hauling. Although only about 8 miles of up and down and traverse it took us two and a half days to get to the Jones Shelf depot.

Friday 15th March

Sleeping in tent in quite a high wind after our first day of sledging. We have hardly covered any ground being about half way to the ice shelf. The sledge is terribly heavy and the surface slow so that we have had to relay loads several times. But we are learning the technique and are most comfortable now in our bags. The answer man-hauling is to cut down drastically on one's personal equipment. It is extremely strenuous work.

Sat 16th March

Again a day of very slow going. We are camping on the ice piedmont below the col which goes over to the Jones Ice Shelf and the depot. Breaking camp took some time but even so by 4.30 we were fairly played out and couldn't even haul half a load up the last steep stretch to the col. We had not taken paraffin for two nights so when the tent was up I went on ski over the col and down to the depot and filled the primus. It was completely sheltered at the depot while the wind is blowing almost gale force here.

Sunday 17th March

We have reached the depot by the ice shelf at last. It blew hard last night and kept it up until 10.00 this morning so we did not get under way until 12.00. The surface was greatly improved being wind-packed and we took a 3/4 load straight over the

col. We made camp and leaving Nigel to geologize on the cliffs above the fjord here John and I went back for the 1/4 load. It is remarkably windy on the S side of the col the change being felt as one comes over and down to the sheltered nook where the Jones Shelf affronts the island on the North. This is a delightful spot and it is regrettable that the refuge hut was not put up here. Seals know a sheltered place when they see one and there are several lying on the low shelf that runs between the steep ridge and the fjord.

On the northern side of the fjord the Heim glacier feeds the ice shelf. It forms an obvious break in the rampart of mountains that makes up the Brynd Peninsula and should prove a good route into that country. The scenery here is quite remarkable. It is as if the 4000' peaks of Blaiklock rise straight out of the level ice shelf and are too steep for much significant snow or ice cover. It is an astonishing scene. Frequently there is a loud report as a lump of ice calves off the edge of the ice front.

Monday 18th March

We are lying up this morning as the weather has clamped down and snowing. Nigel and I in the Pyramid and John in the Pup tent. We have made plans for the next 3 days to cross over the ice shelf and collect some rock samples from the outcrop at the base of pt 7500' (later named Thor), to establish a trig point on the ridge above the camp somewhere and to spend a day getting into the great depression which divides the island into two. We call this the Midland Valley.

I have been thinking that there is little point in taking the full load back to the refuge so what we shall probably do is leave the Pyramid standing and in it the survey kit, the pots and pans box, sledge repair box, medical box and possibly even two of the sleeping bags. Then all this will be ready for the main journey up the Heim and we shall ski back to the refuge with our personal kit. (In retrospect it seemed rash to consider leaving sleeping bags - we had yet to appreciate how rapidly blizzards could arise.)

It cleared next evening and Nigel and I climbed up to the ridge above while he took geological samples I found an excellent spot and built a rock cairn alternating activity with sketching and taking angles as it was turning cold for bare hands.

Tuesday 19th March

Today has been one of those rare calm glorious sunny days when the scenery takes on an unreal majestic aspect. We spent the day on the ice shelf taking the unladen sledge so as to have the sledge wheel recording distances. I am trying to do a series of traverses to make a local map for Nigel's geology. We had lunch in the middle of the shelf. John and I calibrated the sledge wheel and I sketched the country to the North and East and took a round of bearings. We discovered that when wearing my goggles the compass was thrown some 2 degrees out. Across the far side we managed to collect a rock specimen from the lower slopes of the huge massif, point 7500'. The S corrie of this mountain is an enormous feature and very prone to avalanches. A huge one came down today. Wonderful lights in the evening walking back across the ice shelf. Temp 18F.

Wednesday 20th March

Another beautiful day. We entered a new part of the island we call The Midland Valley, a feature that runs through from a fjord in the South to join up with the ice shelf in the North. We traversed along the side of this slowly while Nigel stopped every so often to geologize. Came back by crossing over the western ridge and traversing back to the col above depot camp. With the remaining daylight we went up to the trig point, finished building it and put up a large bamboo pole and flag. We have named this ridge Tor Ridge and the great corrie across the fjord Avalanche Cwm. We have seen at least one per day come down and fill the corrie with snow vapour. I took several colour photos.

We have found the sledging rations quite adequate so far - porridge and tea for breakfast, a small slab of chocolate and 6 biscuits for lunch. But one fills up in the evening with a hoosh of pemmican, butter peafLOUR, potato powder and marmite and topped up with cocoa.

Friday 22nd March

All went to plan today. We managed to sledge back to the Refuge in 7 hours the same distance that took 2 1/2 days on the way out. The snow around the depot was deep and soft so we only went 50 yards before sticking unable to move the light sledge - a disappointing start!. But by relaying half loads we reached the top of Depot Col and there the surface improved no end so we were able to cover good ground before a lunch stop.

There is a snow gully about 1 mile from the hut with a precipitous bank. Here we had to unload the sledge carry the kit around and pull the sledge up on a karabiner pulley. Then a mile of vg surface took us to the Refuge. We are all pleased at getting back especially John whose cigarettes had run out. He cooked a good supper for us, a pleasant change of sledging rations. We got through to Base on the radio. There is plenty of mail (radio telegrams) waiting for us apparently. Percy Sandy and Len are soon to cross over to Pourquoi Pas (by boat) and attempt to climb Mount Verne where they will put up a trig station flag.

I spent a little time this evening getting my hand in with star observing by theodolite.

We are all much fitter, more experienced and generally better off for this last week's outing. Now John and I must get on with the local survey and supply Nigel with a map for his geology, and we must prepare now for the main autumn journey to last a month in which we will enter the peninsula by way of the Heim glacier. Hope to leave in two weeks or less.

In fact we left ten days later, ten busy days of alternating gales and fine weather, local surveys and astro work on the clear nights. It was getting colder and pancakes of ice were forming in sheltered parts along the shore. The interior of the hut was usually below freezing and colder than a tent, yet to the others it had a security they were loath to leave when it came to packing up to go sledging. Meantime we progressed the local survey of the island for Nigel to plot his geology and John and

I or I alone, observed a number of Position Line stars from the base trig point to get a good fix.

We were undertaking a triangulation northwards and westwards to link up with that being done by Angus Erskine from the Loubet Coast. This triangulation would fix identified points on the aerial photography flown by Hunting Surveys the previous year from their base at Deception Island⁴ The photography at nominal scale 1/40,000 came down south as far as Pourquoi Pas island. It was the first time that professionally planned and flown stereoscopic cover had been achieved down the west side of the Antarctic Peninsula and offered the possibility of good photogrammetric mapping if ground control sufficient for air-triangulation could be done. This would be a whole order better than sketch surveys from ships or sledge wheel and compass traverses on sea ice or up glaciers as had been done hitherto and we would continue to do next year in unexplored areas south of the photography cover. The Huntings pilots had run great risks flying 500 miles south of their base on the short-lived fine-weather days at a height of 20,000' and achieved overlapping strips some 5 kms apart, each photo overlapping its neighbour by some 60% but varying a lot as the ground rose and fell from sea level to 9000' at its highest points. It was immensely useful for planning routes as one could examine in great detail crevassed areas to avoid, routes up mountains etc.

The triangulation net of control points on peaks, ridges and small rock islands was specified by Peter Mott in discussion with Angus and myself to achieve an accuracy of about one part in 10,000 in theory, a very low order but amply sufficient for the mapping of untouched wilderness country. The first step in this was to get position for the base trig point from the stars. Later, when there was sea ice we would observe an azimuth to a point on a small rocky island which would be at one end of a measured base line on the ice. The triangulation from the base line would extend the scale to all points with the angles at each station observed on four arcs in the horizontal and two in the vertical planes.

I had absorbed the dedication of Steve Stephenson, our astro course instructor, and Col Denis Wiggins and others at the DOS. With Hints to Travellers Vol 2 in hand (the survey manual) I was beginning to think Survey in every waking moment and she could be a pretty demanding taskmaster for the hours spent observing in the cold. It took care to avoid ice from one's breath forming on the eyepiece or the optical micrometers, patience to use a soft pencil to scrape it off, to identify the right star from the star atlas in the dark, find it in the telescope set to infinite focus and carefully bring it to the intersection of the cross hairs with fingers rapidly losing their touch from cold, and at this moment take the time to the nearest 0.2 second, either with a shout to the booker, or if alone, by stopwatch and reaching for a torch, stop the stopwatch a round number of seconds later on the chronometer, then record the time by pencil. And finally read and book the

⁴ The fascinating story of FIDASE (Falkland Island Dependancies Air Survey Expedition) is told by Peter Mott, the leader, 40 years after the event in his book Wings Over Ice.

vertical angle and the horizontal angles. This completes one observation and it was usual to take six to one star and at least four stars in quadrants for one Position Line fix. For the origin of a survey several nights of work are necessary to improve the accuracy of the mean position. It was a learning process getting familiarity with the southern constellations and suitable stars, usually brighter ones visible with the naked eye, which became friendly beacons in the sky like the four of the Southern Cross, Canopus in Carinae, Antares the reddish star in Scorpio, Achenar and many others. They all silently accompanied us in their infinite revolutions on the celestial sphere and when visible, through cloud or drift during the 7 months or so when the sun did set, would give you that comfortable feeling of helping you find your way.

...And the Southern Cross rides high!
Yes, the old lost stars wheel back, dear lass,
The blaze in the velvet blue.
They're all old friends on the old trail, our own trail, the out trail,
They're God's own guides on the Long Trail - the trail that is always new.⁵

The stars were already mapped by astronomers and their positions in terms of Right Ascension (like celestial longitude) and declination (celestial latitude) were accurately given in the Star Almanac. Computation of the observed angles and time solved what is called the Celestial Triangle and related the coordinates of the stars to geographical quantities of latitude and Longitude; but not automatically, as computations required a lot of calculation - refraction from temperature and pressure of the air, tables of logarithms and abstraction of quantities from the almanac. If stars had been correctly identified and no mistakes made in calculation, the results would be a pleasing reward to a night's observing and sound sleep would follow. Conversely sleep would be denied in restless re-computation if a star had been mis-identified or an error made in computation or time.

Dava Sobel's little book *Longitude*⁶ describes the fascinating story of the solution of time and hence longitude which, through the history of navigation, had always been a problem until Harrison took up the challenge of King Charles' 20,000 pounds reward for a clock that would keep time accurate to a few seconds on a long voyage at sea. He finally solved it towards the end of his life. With shortwave radio receiving broadcast time signals from the BBC, Rugby or WWV in Washington we could rate our half chronometer pocket watches; and I also used my Zenith wrist watch, a valuable 21st birthday present with a full second hand sweep and fifth second tick, which also gave a steady rate. The watch was carried in a chamois leather bag hung from the neck and next to the tummy to keep it at a constant temperature and rated as often as a time signal could be received to plot its drift. Time error translated directly to Longitude error at 1 second of time to 15 seconds

⁵ Rudyard Kipling - The Long Trail

⁶Published by Fourth Estate 1995

of longitude arc or about 285 metres in this latitude, whereas latitude was hardly affected by time but more by refraction errors in altitude observations which anyway could be compensated by balanced north and south stars.

So it was that on the nights of the 30th and 31st March I was up much of the night taking observations from the base trig cairn.

Lack of sleep perhaps and much to be done to get away as planned may have made me grumpy with the other two. I recorded in my diary *"I wish I could inspire more enthusiasm for the work to be done in the field and for which this Refuge is the purpose. But there it is, Nigel's feet worry him and John's path seems always to be the line of least resistance. What opportunity there is being wasted! But in a small closed party one has to be far too careful not to offend another by blatant observation"*.

In fact Nigel and I had many laughs particularly Van der Merwe jokes from our shared experience in South Africa and John was a very good-natured stolid Yorkshireman but by nature not active or enthusiastic. Had our main function been to just occupy the hut for a political purpose their natures were ideal. In contrast, for me, the work was outside and the season closing in. I do not recall any heated exchanges but I must have been an uncomfortable influence in my reminders and lists of things to do. The hut acted like a magnet for all its chilly interior it was home. They had neither of them done any outdoor pursuits like climbing before volunteering for FIDS. By nature I got rid of the 'cameelious hump' so well described by Kipling⁷ in energetic activity.

We climb out of bed with a frouzly head,
And a snarly-yarly voice.
We shiver and scowl and we grunt and we growl
At our bath⁸ and our boots and our toys.

The cure for this ill is not to sit still,
Or frowst with a book by the fire;
But to take a large hoe and a shovel also,
And to dig till you gently perspire.

I get it as well as you-oo-oo
If I haven't enough to do-oo-oo!
We all get hump-
Cameelious hump-
Kiddies and grown-ups too!

⁷How the Camel got its Hump in Just-so Verses

⁸In fact I never had a bath in two years and would have enjoyed one at Horsehoe island base but it blew away in a gale before they could install it and was never seen again!

Well there was no shortage of things to do in preparing equipment for a sledge trip. My list for the 2nd April reads like this -

Sledging gear for the Heim Glacier trip:-

12ft manhaul sledge, sledge wheel (to be attached), new Pup tent, 3 sheepskins in PO bag, 3 sleeping bags of personal kit, 2 climbing ropes, 4 ice pitons, 1 extra karabiner (2 on sledge 2 on person), 1 extra length lashing rope, 3 ice axes, 1 snow saw, 3 prs ski, 2 galls paraffin.

Pots and Pans box items: torch, 3 plates, 3 mugs, 2 pots, 1 funnel, clock, Meths bottle, 1 spoon, optimus stove, 1 potholder, 1 Nespray tin matches, 4 candles, 1 plastic mug, 2 batteries, 1 tin opener, 1 bog roll, 1 tin Vit C pills, 1 snow brush, primus pricker⁹.

Survey Kit: 1 plane table with field sheet, 1 zip case photographs, 1 scale, box pencils, dividers, pen, 1 bott black ink, 1 Hints Travellers (survey manual), Flags, 6 poles, 12 glacier poles, field glasses.

Left at Depot: 1 Pyramid tent, 4 man ration boxes, 1 shovel, 2 galls paraffin, barometer, chronometer.

We did get away on the 3rd April late after a dilly-dallying packing up, Nigel despondent about his blisters, myself depressed and impatient and the surface was dreadfully sticky, so that even on a down gradient it was all we could do to move the sledge. We ended up manpacking loads forward and returning for the empty sledge. We were so little on our way we ski-ed back for the night in the hut but I was more cheerful that the others were keen to try manpacking loads in the morning.

This we did and reached the depot at the Ice Shelf taking most of the sledge load on our backs and leaving the sledge at the Gully. We made better time and reached the depot at 3.30 pm. It was slow going in strong wind so that visibility was sometimes nil but we knew the way and had no trouble. The tent left there was in good shape. Interestingly we saw 3 penguins on the newly formed sea ice but had no idea where they were heading. John and I went back next day to get the sledge leaving Nigel to rest his feet. The weather was a bit warmer and the little sea ice that had formed had gone out.

Saturday 6th April.

A very good day in spite of the usual morning dawdle. We relayed loads to the edge of the Shelf getting everything there by lunch and then to our joy found we could

⁹This vitally important item if broken, lost or forgotten could mean the primus giving off asphyxiating fumes or worse not working and no water from melted snow. Someone discovered that the bristles of a wire brush were right diameter and also served.

easily pull full loads across the Ice Shelf. For three hours we travelled fast (probably about 3 mph) and are camped one mile up the glacier. The surface is excellent and the glacier so far un-crevassed. What an amazing difference this surface makes. It is a great pity that the sledge wheel is broken and we have not been able to repair it which more or less means that we can't get much of a map of this new country until we visit it in the Spring.

Sunday 7th April.

A splendid day - good surface and perfect weather. We managed to get about 8 miles up to a point looking down (North) to Lallemand fjord and to Andressen island - 2 miles from Base W. We pulled into sunshine which I found warm work but on stopping to sketch for lunch one was rapidly chilled. I stupidly let my finger tips chill and they are sore tonight. The temp is down to +8F with a keen wind from the South - cloudless though with excellent visibility. We have reached the 'interconnecting' glacier between the Heim and the Reid but cannot as yet see the way through. We crossed a belt of some 8 crevasses which were well bridged. The tent is a great comfort. Tonight Nigel and John cheerful in the tent.

Monday 8th April

We have not travelled far today. At lunch halt decided on laying the main depot and spent the pm trying unsuccessfully to make an igloo but the snow not being of the right consistency we had to give it up. The weather has been deteriorating and by 7.00pm was blowing a full gale raising heavy drift. Now it is raging, a most wild night. I fear it may continue a while. When we get an igloo up will depot 2 boxes rations, 2 gallons fuel and some small items then try to connect with the Reid glacier. There is a peak one mile to the North which will make a good trig point if John and I can get up it.

Tuesday 9th April.

*A lie-up day the wind continuing unabated bringing with it soft wet snow. Some 2 feet has accumulated and I dread to think of the slow going unless a good cold wind follows to pack it. The light inside a closed tent is poor but I managed to read a little of *Other Men's Flowers*. I love the poem *The Song of Honour*¹⁰.*

It's too long to quote fully or this memoir would turn into an anthology but extracts will show why it appealed to me and my yearning nature

*The song of beggars when they throw
The crust of pity all men owe
To hungry sparrows in the snow
Old beggars hungry too.*

*The song of courage, heart and will
And gladness in a fight,*

¹⁰ By Ralph Hodgson

*Of men who face a hopeless hill
With sparking and delight.*

*The song of sailors every one
When monstrous tide and tempest run
At ships like bulls at red,
When stately ships are twirled and spun
Like whipping tops and help there's none
And mighty ships ten thousand ton
Go down like lumps of lead.*

*The song of lovers - who knows how
Twitched up from place and time
Upon a sigh, a blush, a vow
Born up and off from here and now
Into the void sublime.*

*Without a wish, without a will,
I stood upon that silent hill
And stared into the sky until
My eyes were blind with stars and still
I stared into the sky.*

A list of the manhaul load up the Heim follows which gave an estimated weight of 668 lbs or 222 lbs per person.

The new surface was 2 ft higher. After digging out the sledge John and I went off roped on ski to climb the isolated peak a mile away putting in snow flag stakes every 600 yards and noting the bearings of each to ensure getting back should the weather deteriorate. We climbed the last 500ft in crampons, reached the top, put in a flagged bamboo pole for a trig point but were able to do nothing else with visibility only 50 yds but pleased to have got a trig point here and hopeful of travelling tomorrow. The temp was +9F.

In retrospect from later experience of how storms could suddenly blow up, these outings away from the main tent with sparse markers were a bit risky. But it was not yet extremely cold if we had to dig a snow hole.

Autumnal weather did blow up and for some ten days of the next fortnight kept us in the tent in blizzards. We carried a '68 army receiver radio and on the 12th in spite of the weather we got through to Horseshoe out of the blue and I received a greeting telegram from Roborough "Happy Easter and love from all at Roborough, strawberries in blossom - Denis". How splendid I wrote and it was he who had given me a copy of Other Men's Flowers.

We were still idle with no visibility on the 14th - Bid's birthday and I thought Palm Sunday. After supper we had one of my big slabs of chocolate and drank to Bid's health in a flask top of brandy. I finished reading England Their England. Nigel and I talked much of Oxford and places known to both of us between Rhodesia and

Cape Town. Lying up sapped our energy. We tried to move next day, got the tent dug out when the wind and drift came up strong as before. And it was the same next day digging out the covered sledge and the snow from the tent, but Nigel and I roped on skis went blind for an hour and half in the direction of the col, John remaining in the tent. It served to give us exercise. Crevasses were always in mind but we had no mishap. I thought out and described a method of one-man crevasse rescue where the man below is injured and cannot use the Swiss Army method. This I called Prussik Sling method. We did manage 2 miles next day and stopped just short of an enormous crevasse which on investigation, while John put up the tent, curved in a semi-circle around the camp.

We heard that the Pourquoi Pas party had abandoned their climb as Percy had sprained his leg. He fell into a crevasses and Sandy held him.

Friday 19th April. Good Friday

Today has been a v good day and we have probably reached our furthest point on the trip. It dawned still and clear and it was a joy to find exactly where we had camped last night. One could see right down the way we had come from the Heim looking East. Looking North down the glacier that runs to Lallemand Fjord we could see right across to Cape Rey over Andressen Island. Our route has been up to the col of this Interconnecting glacier, a slow pull up of about 6 miles we must be some 3000 ft up. After a long haul we reached the top and were able to look across the whole extent of the Brynd Peninsula, across the Reid glacier and to the mountains we see from the Refuge. Were there sea ice in Bigourdan fjord we could return to the Refuge by way of the Reid glacier but there is no chance of that so we must return the way we have come and get back to the depot within 5 days as we are 2 days into this last box. We camped as soon as we could see the new country over the top of the col. The view soon disappeared though with a high wind raising clouds of drift. This being a most exposed place we sunk the tent deep and lashed it to the sledge with a looped trace over the point of the tent. My thoughts while pulling today have been with those at home and dad taking a 3-hour service perhaps in the cathedral.

Next day the tent drifted up 3 ft in the new snow. We reduced to half rations and John made a list of all the different varieties of chocolates he is going to order for next year!

Easter Sunday 21st April

An Easter out of the ordinary bringing joy with the thought and alleviating trials of manhauling under most difficult conditions. The day started fine - out early digging the tent out and sledge then spent 2 hours on ski to a rock outcrop on the side of the glacier where Nigel took specimens. Expecting a good surface, we started back down the glacier but to our annoyance the surface deteriorated rapidly until we were sinking in knee deep and barely able to move the sledge downhill. At one point we had to relay loads downhill. We got about 3 miles manhauling to 6.00 pm when the light failed. I appreciated v much the pemmican tonight and we celebrated Easter with extra chocolate which Nigel gave John and me. I found some

Kendal mint cake. We wished Horseshoe a Happy Easter over the radio and George talked to us for a bit. We are happy in the tent tonight.

Monday 22nd April

It dawned a perfect morning, calm, no clouds and faint sunshine on the hills. I wiped warm water on the runners thus coating them with a layer of ice and the experiment seemed successful in the appalling soft snow of that glacier. It was strenuous pulling but we managed to reach the depot by 4.00pm at which time the weather had reverted to its more normal form gusting gale force and little visibility. This should pack the surface if it does not bring new snow. We were a little worried that the depot may have drifted over but fortunately the flag stuck out some 3 feet above, about 2ft six inches of new accumulation. As we now have one week of food we shall establish a trig cairn on top of a small peak across the other side of the Heim glacier on the way back. Temp this morning +8F.

Tuesday 23rd April

The Heim has brought us a glorious day again. We crossed it - 8 miles - and are camping beneath the peak on the eastern side we hope to establish as a trig point tomorrow. It's been a perfect day like the one over 2 weeks ago when we came up the glacier. The wind of last night left a series of hard and soft belts. One ploughed through the soft patches skis out of sight and sped across the hard. Lunch stop was chilly but warm on the go sledging in simply a jersey. With a cloudless sky tonight, the temp has already dropped to +1F so should record a minus tonight. It was very nice being able to see Blaiklock Island and the familiar shapes of the hills that we know from the refuge. The hill above us is about 2500 ft. It should be an easy ascent. A v good day.

The next two days were lie-up ones with wind and drift and we started on our last ration box.

Friday 26th April

A marvellous day well worth waiting for. We climbed the little peak on ski and reached the top at 1.00pm. I took a round of photos. Nigel got a rock sample. The view was excellent seeing over all Blaiklock Island to Pourquoi Pas and Adelaide. One could see most of the Heim glacier and up the Interconnecting glacier the way we went. We got back to camp at 3.00pm and had the lunch we had carried all the way. I dug out the sledge ready for tomorrow which we hope will be fine for getting off the glacier and across the Jones Shelf to Blaiklock. From the top we saw an un-crevassed route hugging the eastern side of the glacier. It is a blessing that these glorious days do appear between periods of lie-up weather. Temp +5F this evening.

And so it proved. It blew hard and drifted for two days raising the surface by 2 feet and burying the sledge which I dug out on Sunday evening. But happily we got away early on Monday the 29th. A breakable crust took the weight of the sledge for a short distance and then collapsed requiring the three of us to lift it up onto the crust again. Hugging the eastern side we found an un-crevassed route off and

onto the shelf ice. A strong wind got up before we reached Blaiklock Island, so we got the tent up a mile before the main depot. Due to a broken mukluk zip I had used leather climbing boots and my feet had chilled to near frostbite. I could only wear a single pair of socks with these boots. It was the beginning of dead nerves in the big toes. We covered about 8 miles.

Tuesday 30th April

We are back at the Refuge Hut! And have delighted in the change of diet, biscuits, a varied meal, coffee, cigarettes and the many joys that the little hut affords.

The weather held moderately fine and the surface was better packed after the wind of yesterday. Relaying half loads we made two trips and got everything to the top of Depot Col and lunched there. We managed the full load across the ice piedmont and just as it was getting dark reached the 'rock portage' where, leaving the sledge, we packed our sleeping bags and made for the refuge in failing light. As I had no falls skiing down the last half mile, I reached the hut first. Everything inside was in first class order. A strong wind had destroyed the igloo and scoured clear three sides of the hut beautifully clear. Nigel arrived temporarily irritated having fallen heavily a couple of times. John had walked down leaving his skis and made a b-line for a cigarette.

We have not accomplished very much during the month away having only had 14 days on which we could travel- about four of those half days and generally poor sledging surfaces. Perhaps we have done about as much as we could without staying out longer with further rations. The trip has shown how feasible the going is on the system of interconnecting glaciers in the peninsula and that dogs will be of great advantage. So one can look forward to Spring journeys when I hope that the work will go at a greater pace.

I discovered last night when taking my socks off that a combination of frostbite and chafing had taken off a lot of skin from my left heel. My foot being cold I had not noticed any pain. I was worried that it might affect my pulling today but it went alright. I don't expect it will take long to heal.

We are trying to dry out sleeping bags but at the moment none of the (primus) stoves will work. Nigel is working on them. On the sched had a telegram from Mary sending love, happy to be back at the Harold Wood hospital, has read 'Two Years in the Antarctic' by Kevin Walton and saw the Duke of E and us on TV.

Interspersed with gales when the temperature rose to the 20sF we had some quite beautiful cold clear days of hard frost and our first minus temperatures. On the 6th May Nigel and I climbed 2000 ft up the western ridge, the atmosphere was clear and brilliant, the snow sparkling, the sky a deep blue the colours changing in tone every moment. With the moon nearly full we could extend the short days and skied by moonlight. The two clear nights enabled John and me to practice further astro observations. The temperature stayed low near zero and ice formed over the fjord. Although thin Nigel and I ventured on ski across to the Guardian Rocks a half mile offshore.

It was six weeks before midwinter. The sun gave an hour of near horizontal golden rays as she transited our meridian low over the Reid Glacier across the fjord. On the 10th John and I measured a baseline along the beach to triangulate in some

high points on the island for Nigel's plotting of geology. It was good to have a more precise one on the sea-ice for the main scheme.

Now with the sea-ice forming which would enable a crossing to Pourquoi Pas island I was keen to attempt an ascent of the highest peak Mount Arronax and put a trig flagpole on the top. It would be good to leave the fumes of the hut for a few days too. We had great difficulty in getting the primuses to work, the heater to burn or the paraffin lamp, matches to strike etc. Was it lack of oxygen or humidity? Fortunately for the breakfast man, Nigel or myself, everything usually burnt well in the early morning. We cleared headaches by getting out for a quick ski run but John's answer was to get into his bag in the loft. Perhaps the air was better up there. On the 16th the maximum temperature in the hut rose to 16F. Bottles of pickled onion and other jars would burst. A thin film of ice formed on the inside walls and many varied signs of Jack Frost.

The ice in the fjord was now 4" thick testing it across to the Guardian Rocks. Bryn told us on the radio that there was 10/10th ice from Horseshoe as far as Ridge Island. I listed everything we would take. To save the weight of the ration box we would split the contents into our personal packs but the weight of all gear still came to 300 lbs including the 6 ft sledge. Several days of blizzard kept us in or near the hut. Warmer weather brought seals onto the ice which, thinking of Angus and Jim Maddel with two dog teams finding a way towards us off the plateau, I killed and cached for their use with John's assistance. We also enjoyed the fresh meat although I hated the grisly business.

On the 23rd the wind was so strong the hut rattled. We stayed indoors all day. *...I fear the ice may break up with this wind combined with the higher temperatures. John has been most cheerful this evening, perhaps due to an excitement in overcoming a natural inhibition to the bloody business of killing seals. He was most helpful. It is usually Nigel and I that carry on a constant good-humoured banter on a number of themes which would seem childish to record. We talk in accented American negro, or SA constable language, BBC or cockney and affected Oxford. We have a great pretended fear of 'Tripods' which explain away any otherwise unexplained noise. They came to us from the HG Wells 'War of the Worlds'. Tripods are a constant source of danger. They make a wine like the wind in the aerial wire above the hut and walk with the triple knocking like the banging of the wooden stays on the hut wall. We have numerous 'Krodats' too though we do not know what they are but you catch them with a line and pole in the States and can sell them there 'three for a dime' so a song that Nigel knows 20 verses of, tells us. Anything with no befitting name is called a Krodat. John makes very good 'Floating Krodat Roller Buster puddings' and they are most indigestible. They are like a 'Blaiklock Roller Buster' which is of 'vetcookie' consistency and they 'float' because the mixture is of flour and oats. Most of our Refuge recipes have very longwinded names but none compare with the sledging hoosh of 'Parra-pemmity-cocoaridge' in which porridge is made in the pemmican billy of the evening before flavoured with old tea leaves and cocoa and the accidental addition of spilt paraffin.*

Most of the ice on the ceiling has melted now and the water soaked into the floor. The walls are drying and the hut is warm in this 'heat wave'.

Friday 24th May

*Another warm, snowy day with a thaw temperature of 34 degF most of the day - but tonight freezing thank goodness at +15F. So we may be able to leave tomorrow if the ice has not deteriorated too much. It has not been blown out as I saw from the top of the Refuge Trig ridge. Bryn told us on the Sched that the ice has blown out of Bourgeois fjord. I have read the first 200 pages of *The Worst Journey in the World* by Cherry Garrard¹¹ which I find just excellent and so interesting now comparing that other picture of the Antarctic.*

Saturday 25th May

This morning the temp had dropped to zero and it dawned a beautiful day. We decided to leave. But the prospect which seemed so good soon altered for a blanket of soft snow covered the ice and insulated it from the cold air. The top 5" was slush which the sledge sank into. We sledge with our skis some inches in wet slush with only about 3" of ice beneath this. A wind got up lifting clouds of drift. After 2 miles down the island coast I decided it would be foolish to cross the Narrows until the ice had time to harden after the thaw that had weakened it so. We deputed the sledge at the Dog pemmican depot and carrying our bags returned to the hut. I thought it would be alright wearing hard boots but my feet chilled and my patch on the heel opened up again. I spent the evening adapting my skis to take snowboots.

I played a practical joke on John last night by painting a horrible blood-shot eyed mask cut from a cornflakes packet and put inside the opening of an anorak hood it looked like a bad dream. I hung it above his bunk. It was very amusing this morning when he awoke to see it!

Sunday 26th May

*Blizzarding hard all day with terrific gusts at times which shake the hut and strike the East window with great force. It is a good thing we are not out in the pup tents. It seems though that the ice has still held which is good. The aerial mast Nigel made blew down which we temporarily re-erected for the evening sched. Bryn played *The King* and I mostly for my benefit¹². It was very jolly hearing it although it detained him from his supper. He told us that a lot of ice had come down the fjord and we wondered whether it had come from the Narrows.*

*I read another 200 pages of *The Worst Journey* finding it most gripping. How it strikes one the picnic that FIDS is in comparison. We have no great ideals as they had, no common cause. We are so weak in mind and body in comparison and chiefly in mind. It is moving to read of such fortitude as may be found in men, such*

¹¹This was a re-read as I had read it when at school but in the present context it took on more meaning.

¹²This was one of the musicals I was constantly humming, which Bryn knew was a favourite. It had been one of Uncle Victor's treats evenings in London with Aunt Joan and Julia.

indomitable courage in Bowers, selflessness and faith in Wilson, silent suffering in Oates. But with us it is chiefly a lack of ambition to equip mind and body to accomplish a piece of work down here. Such remarks as 'Thank God I'm not a Polar Explorer' show wasted opportunity and makes one wish for the company that earns the right to be here by showing something of the spirit that the Antarctic called forth in its former visitors.

With these sentiments was I being unrealistic in expecting my two companions to cheerfully back me in climbing Mount Arronax just to plant a flag pole on the top and only 3 weeks before midwinter and dicey ice to cross? I probably was. The 28th May was a glorious day, the few hours of it, as the sun did not rise now but we had twilight from 11.00 to 16.00. We picked up the abandoned sledge and crossed the Narrows. Spent some time looking unsuccessfully for a depot that Derek Searle said the ship had placed on the shore of Pourquoi Pas. It was dark but starlit when we re-crossed to camp in the two Pup tents on the southern shore of Blaiklock. The temperature was +2F. These tents were ridge type like the Black's Mountain tent, weighing 15lbs each of single Egyptian cotton with a sewn-in groundsheet and just room for two persons. Being single-walled they were of course poorly insulated and the ridge design as opposed to the cone of the Pyramid did not allow warm air to be trapped higher up.

Wednesday 29th May

A very successful day in spite of certain lack of enthusiasm among us. We sledged across the narrows for 2 hours to a landing where a moraine coming down from the central ridge of Arronax meets the shore. Here we had our lunch (biscuit and chocolate), depoted the sledge, poured paraffin into two lime-juice bottles and packed our kit in rucsacs. We had light for an hour and made about 1000 ft which was good considering the pretty heavy loads. Camped at the head of a small moraine. The outlook is excellent v.g. weather and temperature 0 degF. Both tents are pitched door to door for easier communication. I lent Nigel my duvet as he was cold last night. Tempers are a little more cheerful although there is not much enthusiasm to get to the top.

Thursday 30th Ascension Day.

But there was no ascending! A rather awful day of lying up in a very high wind and it says something for these little tents that they are not blown away. Drift penetrates the material in a fine spray but being cold (-5F) there is not much thawing of it. The gusts that shake the tent are terrific. Communication between the two tents most difficult. Pray the guys hold for the night. I have been going out frequently to tighten them (they are fixed to pitons). We are now in our bags and quite comfortable if the tents remain above us. The sea-ice has gone out of much of Bigourdan Fjord.

It continued very stormy through the night. Next day there was no will to endure it further.

31st May.

The weather continued rough, cold, misty with the same wind. I made breakfast

quite early in the tent John and I shared and were out packed up with the tent down and had to wait an hour for Nigel to get his boots on, roll his bag up and join us. I get exasperated during delays of this unnecessary nature but Nigel certainly feels the cold more than John or me and was altogether rather fed up with being 'in the field'. John's hands were nipped while waiting. There is nothing one can prescribe unless a change of mental attitude towards a little bit of hardship. It is weak, soft and irreconcilable and means as a party we shall achieve little. Once a man makes up his mind that for the time being he has had enough there is nothing one can do but accept it and get back to (relative) comforts. And so we returned to the Refuge sledging for 4 hours across the sea-ice. During the last two hours it got dark and started to blizz so one could only see a few yards. It took a long time following the last mile of coastline while our faces and necks were quite iced up. We are comfortable in the Refuge and have had a good meal. But how I really wish I could be lying up in a Pup tent on the mountain waiting for a chance to continue with chaps that know how to do things and did them with a will. I had half expected Angus' party from 'W' to be here. With luck we may be able to co-operate to the extent of doing a trip together. I am sure he would jump at going up Arronax for I long to get back onto the mountain apart from the fact that it is part of the survey. (In fact Angus and Jim were having a tough plateau journey finding new routes up the Forrel and down the Finsterwalder glaciers and I must have been clutching at straws that he would want to climb Mount Arronax).

The first June was lovely weather. John and I intending to collect some things left at the Jones depot sledged up there but finding some seals on the ice and thinking of the dog teams we turned to the horrible business of killing and gutting six of them. We had time to haul three of them to the depot and left the others behind a berg where I assumed the ice would stay fast. It was a glorious calm evening while we sledged back in the fast time of an hour which on our first outing had taken nearly 3 days overland. We arrived back in time to crank the '119' for the sched and hear news like the sad loss of Omega, one of Sis's pups presumed drowned in a tide crack, that Henry had his transfer to Horseshoe confirmed for next year, and Bryn played the other side of The King and I. I cheered John and Nigel with stories of the latest infra-red heating system installed at the Old Vic.

Again clear and sharp next day with the temperature +2F John and I sledged across the fjord to look for a route up the Reid Glacier front. We crossed over the 4 miles in an hour but were completely stumped by the ice cliff which rose at its lowest point to some 60 ft in an overhang. We collected rock specimens for Nigel from two little islets. The temperature went down to -4F but no wind and with exercise stayed warm.

On the 5th June it dropped to -14F a beautiful and cold day but did not feel so as I helped Nigel outside. We obtained seawater from a hole in the ice and froze in the new aerial mast he had cut from a 12" plank. John and I tobogganed down the slope on the 12' sledge reaching an estimated speed of 20 mph! We had radio news that Angus party had recovered a sledge from a crevasse on the Finsterwalder but lost a dog and should get down to try the ice in Bourgeois fjord tomorrow.

Nigel and I did a very long day on ski on the 6th to get a sea-ice report for them. We were up at 05.30 sledged 2 hours in the dark before dawn to the Jones depot, left the sledge there, ski-ed across the ice shelf for 2 hours to a point where we could see good ice in Bourgeois fjord, retraced our tracks and got back to the Refuge by moonlight at 17.30. It was a good stretch of about 20 miles. We immediately got through to Bryn on the '119' with the sea-ice message which he relayed to Angus. The temperature was -8F no wind, clear with stars and moonlight.

On the 8th June I left on skis early in poor light reached the trig point at the Jones Shelf after 2 hours and saw two small dots down on the col a mile away. There I found Angus and Jim encamped but packing up. We killed a seal near the depot and lunched there then set off at a good pace with the dog teams and reached the Refuge by 3.30 in the afternoon. We had a job cutting up the solidly frozen seal to feed the dogs. We had a good meal which I recall included some vetcookies with jam to welcome these hungry travellers and Angus quoting from Robert Service "When its smokin its cookin and when its burnt its cooked". We tried to dry their bags and skins a little as they appreciated base food. Some alcohol helped warm us up with this new convivial company.

Percy Guyver at Horseshoe had planned that he, Sandy Imray (doctor) and George Larmour would sledge up with two dog teams to join us leaving the next day. But bad weather delayed their departure. With us it was drifting but not too bad and Angus and I sledged up with his team to fetch in the seals killed at the Jones depot. With the wind the temperature had risen to +15F and reached thaw temperature in the hut. Angus recounted stories from the British North Greenland Expedition. We discussed plans.

Angus wonders what his movements should be. He would like to be back at 'W' for midwinter should Lallemand Fjord have good ice. But that will mean rushing it back from Horseshoe. Should very much like to go with him, with Sandy perhaps and the Churchmen. It is important that we link up the trig system where we join around the northern end of the Heim glacier. The prospect of a quick trip with our dogs would also be splendid. And I want to spend as much time in the field as possible but would like two days at Base to fix up things for next year and send home telegrams.

Thursday 11th June

It turned out a beautiful day progressively colder reaching -21F at 5.00pm. Jim and I harnessed his team and went out via the Guardian Rocks, crossed the Narrows looking for the depot on Pourquoi Pas and keeping a lookout for seals. We failed to find either. One had to run alongside the sledge to keep hands warm. We were back by 3.15 pm having covered about 10 miles. The Horseshoe party left and are probably camping on Ridge Island. Nigel and Angus ski-ed to the southern end of the island and 'geologised' in the corrie overlooking the Narrows.

Strong wind blowing 50 knots at -6F with heavy drift kept us mostly indoors for three days and the Horseshoe party tent bound. Angus and I ventured out down the beach but could see no sign of them. I used the weather to make up a pair of outer gloves from ventile cloth as the leather mitts are too tight for my hands. I was concerned that we were using up the paraffin at a rate of about 1 gallon a day.

Saturday 15th June.

Splendid day. The Horseshoe party arrived in time for lunch - Percy, Sandy and George all looking well and the two teams in good condition. We are very crowded in the hut now (7 of us) and 31 dogs outside making a fine noise and frequently getting loose. It is very good seeing these chaps again and the Churchmens team¹³. Percy also brought up mail and I had letters from Liza, David and a vg letter from Bid - all 6 months old.

We are planning to leave tomorrow for Horseshoe but I can see it taking some time to get things together.

Not so - Sunday 16th June

A remarkably good day. We are back at base having done the trip in a single day of 6 hours fast going and are enjoying the greater degree of comfort that base affords.

I got up early and made two series of breakfast, the first for Angus and Jim who intended getting away earlier. In fact Percy's team with John and I were away first at 11.30. They got away so fast that I was left still fastening my ski quite out of control and going at 5-6 mph for the first 5 miles I didn't catch them up and just got hot and sweaty in the attempt. I ski-ed in their tracks until Jim and Angus with their two teams caught me up in the Narrows. I travelled with Angus running beside his sledge most of the way back sometimes going up to Jim's sledge. About half way down Bourgeois Fjord we caught up the Churchmen and I travelled with Percy for a little. The sledges kept up a good jogging pace. Jim's team led after we had overtaken the Churchmen followed by Angus and the Admirals with Sandy, George and Nigel behind from the start.

It has been the coldest day so far with the temp down to -28F shortly after midday then it warmed to -20F as a little stratus cloud came up from the South. I kept quite warm but Angus' nose went a few times whitening at the tip when he would cover it with his woollen mitt which allowed the blood to flow back. It is probably a little over 21 miles from the refuge which for a midwinter's day's sledging is a very good show. The surface was perfect and the loads light. Even near the end of the run Angus' leader Bodger would leap up straining on his trace impatient to be given the command 'HUIT' to catch up with Jim's team.

When I walked into the kitchen they were most surprised (Len, Bryn and Jim) as they did not expect us for a couple of days. The warmth of the hut reminded me of

¹³Derek Searle had taken me out with this team a few times on Horseshoe so they were like old friends but in fact it was the Admirals that Sandy had that I got to know better and Nigel took over the Churchmen.

The Old Vic after a long mo/bike ride. It is splendid playing good music and sitting before a coal fire, walking around the hut in corduroys and open necked shirt and sheepskin slippers. But all this for one week and then with luck Percy and I will be leaving with Angus and Jim and sledging into the Peninsula for a spell. Must stop and sleep in this astonishingly comfortable bunk.

We had six days in this wonderful warm base hut busy getting things ready and making flags for trig points, sheepskin gloves, harnesses, doing inventories for next year. The plan for Percy and I, changed to Sandy and I, to accompany Angus and Jim part way to their base at 'W' on the Loubet Coast then work in the Peninsula on the trig scheme some thought crazy at this winter time of the year.

..But it may I hope go to show how possible it is to sledge all the year round in these parts. It makes the most of the good sea-ice we have. I haven't mentioned how Liz's five pups have grown. They all rush at you whichever door you go out of the hut by. They have terrific squabbles under the hut floor at night.

Friday 21st June (Mid Winter's Day)

A breathless day - no wind. Cold with -15F light at 11.00 and dark at 4.00 pm. We celebrated with an excellent lunch prepared by Bryn and Jim - chicken and veal, potatoes with stuffing and sauce. We had an amusing program with 'W' on the radio passing messages and playing records to each other. We had a high tea and drinks and eats went on until 03.00 am. Angus, Nigel, Sandy Len and I played Liar Dice and later a game called Laddida. Angus got sozzled but it was a shame there was no-one to keep him company. A number of telegrams from Derek, Jim Rennie, Sec-FIDS etc.

Winter Sledging

One day to recover from the overeating and get ready and with the warming thought that every day now the sun would move South towards us, we got away on Sunday, Sandy and I with the Admirals getting a half hour start on Angus and Jim's teams. In spite of Alpha and Gamma the two new pups on their first run at the back pair learning what to do, we made a record run up to the Refuge doing it in 5 hours. It was -24F on the trail and -15F inside the Refuge, chilly. We picked up a dog pemmican depot and got it to the refuge¹⁴ the weather still perfect. Angus bitch Susie on heat and dogs howling all night.

We got away next day to accompany them all the way back to their base (W) in Lallemand Fjord. It was an interesting trip for a winter journey particularly the return so I give diary extracts in full.

We left with 4 weeks supply for 2 men and one dog team - estimated 861 pounds.

Monday 24th June.

Got away 11.30 after a lot of preparation. Lovely day -23F reached depot in good time. Here, Angus and Jim went ahead to get onto the Shelf Ice. We loaded up a further 3 ration boxes and 2 gallons fuel. A very heavy load gave trouble and we had to relay up the ramp so we left a 2-week depot on the north side of the prominent Ice Rise marked with a 6ft flagpole. The dogs picked up the trail and we reached Angus' camp at 4.30 about 300 ft up the Heim and midway across it. Temp -21F. We find only two boxes of dog pemmican on the sledge as Sandy must have packed 5 instead of 6 this morning. Maybe Angus will lend us one if we make good time. The pups behaved better today.

Tues. 25th June.

A very good day. From our camp Sandy and I got away at 11.00 20 mins ahead of Angus and Jim. We soon met a belt of crevasses and I went ahead on a 100' rope probing with an ice chisel. We crossed four alright and stopped short of a particularly suspicious looking one. I gave it a probe the ice chisel went through and slipped from my hand falling out of sight (through its own hole). I tried again with the ice axe - gave it one probe and a huge snowbridge fell away opening up the crevasse only a foot or so away. I jumped back quite safely. We turned left and sledged parallel between two and by going far enough skirted the area.

Angus and Jim had caught us up and went ahead at this point breaking trail. We had a bite of lunch - 10 minutes and a cold stop as it was blowing about 15 knots and -20F. Sandy's nose froze going white and hard so I leant him my scarf and the circulation returned quickly. He got it nipped again a while later. We sledged straight on down-glacier going very swiftly with the dogs cantering and the sledges crashing over sastrugi - Angus in front, Jim following and occasionally dropping something for us to pick up. The vis was not so good at 4.00 pm so we camped still unable to see the nunatak, our present objective. Sandy and I are thinking of paying

¹⁴I presume this was the one we had searched for on P.Pas shore found again.

W a visit and accepting Angus invitation.

Weather still very good. Lovely starry night no wind. Dogs are noisy. Angus bitch Susie useful for breaking the trail. Comfortable in the tent tonight. (We had done 22 miles from the Refuge comparing our cyclometer with Angus revcounter).

26th June 1957

We got away soon after 11.00 on a hard surface. Two dogs Monty and Johnny limping as a result of fights yesterday. The nunatak soon came in sight. We reached the foot at 12.30, made camp, had lunch, donned climbing gear roped and got to the top at 2.45 pm after a steep climb of about 1200 ft. We put the flag up between two rock pedestals. I took some bearings and noted what part of the central range is visible from it. The temp rose to +3F this pm and felt warm. Sandy and I decided to accept the invitation to visit 'W'. We will leave a depot at the foot of the glacier. Hope the sea-ice remains good. Temps ranged from -20F at 10.00am to +3F at 1600H. No wind barometer steady.

27th June

The weather has turned it was cloudy with the light difficult. We travelled tho' getting away at 11.30 and went very fast downslope to begin with. Jim's sledge overturned on sastrugi. We caught him up and lent a hand to right it. Shortly after that one of Angus dogs dropped down a crevasse but came up alright and we sledged across it safely. We got onto the shelf ice and travelled about 6 miles to an ice covered island where we laid a depot leaving 1 Pup tent, 2 galls fuel, 1 man ration box, half pemmican box, crampons and canes, in all 139 pounds. It is marked by the flags and canes about 6' above surface.

On reaching the sea-ice we were very surprised to see open water pools and leads, some 6 shags and a snowy petrel flying around. We lunched and decided to sledge along the ice cliff edge to find a way down and a place offering better ice as a start. We went about a mile to find a spot with only a 6 ft drop to the sea-ice. It was a moments work to shovel a ramp down. Angus inspected the ice which appears to be about 8" thick. The weather was thick so we decided on camping and hoping for the best tomorrow. It has been very warm today, +10F at 10.00 am rising to +12F at 2.00pm. Baro 28.77 low cloud at 1500 ft and snowing. Dogs fought a number of times. Johnny was limping badly and dragging in his harness. Monty is in better spirits. Didn't mention that Sandy put a leg through a crevasse but was fortunately holding onto the sledge. Days run 8.2 miles.

28th June.

A very long day (down Lallemand Fjord). We packed up in moderate drift and got away at 12.00. The sea-ice was smooth and level for 8 miles of good going. Then reached disturbed ice hummocked and most uneven. The sledges took a pounding and overturned many times. We saw the sun - a great big red ball just peeping over the horizon and a very welcome sight. It got dark at 5.00 pm when we started to have trouble stumbling over the ice. Jim's team led all day very well. Our dogs pulled well. We went on until 6.15pm when we estimated we must be near 'W' but still saw no sign of the island. A 'sched' was due at 6.45 pm so unpacked the radio to ask Aussie (Conachie) to shine the Cloud Searchlight and give us a clue. It was difficult to see anything and we were cooling down. The base set to putting up as

many lights as they could. The searchlight sent up a splendid beam some 3 miles off. We packed up and got away and for the next 2 hours had a frustrating time on rough ice and getting tied up in ice bergs. I went ahead trying to find a way through the maze of grounded bergs. Not seeing them at all I walked into them a few times but after a little found a passage and at 9.00 pm arrived at 'W'. The chaps came out to meet us, help picket the dogs and get our kit up. It was splendid seeing Henry, Frank, Mac, John, Aussie, Denis and John again - all very well. We had a marvellous supper, smoke and drink. Henry is doing a lot of dog and human physiology research - measuring skin fat thickness etc. The sledge wheel had broken about 10 miles back. Estimate was 28.9 miles.¹⁵

This was a good run for just 4-5 hours of reasonable light and some very bad sea-ice. We were lucky not to stumble into tide cracks around the grounded bergs in the dark.

After a second winter party for Denis Goldring's birthday and four days at their base being given tuition in radio use by Aussie Connachie and shown the research work Henry is engaged on, Sandy and I left with the Admirals to return to the Refuge. It was not so easy going as before. The previous day it had blown 30 knots from the South and we wondered if the ice was holding.

Tuesday 2nd July.

Left Base W at 11.00 everyone coming down to help with the dogs and wave us off - a very good crowd of chaps! It was a good day for leaving. Caesar the lead dog did poorly to begin with getting confused. We managed to avoid much of the rough ice by going west a good bit. Camped 18 miles from W on the ice. There is v little snow and surface salty. The tent being frozen and not dried out was difficult to pitch and difficult getting stakes in. Saw a penguin marching down fjord and one seal. Had a successful sched with Aussie. Temp at Y -30F with a 30 knot wind.

Wed 3rd July

It was blowing and drifting hard this morning after a foot fall of snow but tho' the sky was clear and we got away at 11.30 It was heavy going with the wind raising clouds of drift - unpleasant and the dogs wanted only to curl up and sleep. We camped at 1.00 having only covered 2.5 miles and must be a good 8 miles still to the shelf ice. It will be good to get onto it as it is not pleasant camping on new sea-ice tho' I think it is pretty firm. The snow is salty and difficult to peg the guys down. Read a bit of Nansen, Could not get through on radio.

¹⁵This was the first journey from 'Y' Horseshoe base to 'W'. One of the dogs, Steve, in Angus team had cause to remember the route 20 months later when the base was vacated and Steve ran off. He turned up remarkably 6 months later at Horseshoe, a quite remarkable journey for a lone dog!

Thurs. 4th July.

Camped on edge of the ice shelf at the northern foot of the Heim Glacier¹⁶ got away at 11.30 and had a time getting Caesar to lead until he settled (This was early days for him since Banshee had been retired but later Caesar became a first class lead dog as we shall tell). The going was very arduous in soft snow that I went ahead to make trail with the prospect of reaching the shelf ice. I fear we will be slow on the glacier and unless we get better surfaces will have to relay. It is splendid being clear of the sea-ice tho'. We had to make a second lot of pemmican because - my fault - I spilt it off the stove onto Sandy's bag. I could not get through to W on the radio and don't know why. Temps -19F 11.00 am and -14F at 2.00 pm the weather has clamped with no wind.

Friday 5th July.

When I turned out the temp was -34F. It dropped to -40F and was a cold finger job getting the dog harnesses and traces sorted. In the deep snow the going was most tedious. I went ahead to make a trail sinking up to my knees. The dogs would manage about 50 yards and stop and it was difficult for Sandy to restart the sledge again each time¹⁷. My hands got pretty cold holding the ice axe. The temp dropped to -44F and stayed below -40F through the pm. This with a light breeze made it very necessary to look after face, hands and feet. At 2.00 pm we reached the depot laid on 27/6 and decided to camp which was just as well as Sandy's feet had 'gone'. I fixed up the dogs and tried to find out what the mysterious earth tremors are that we feel in this site. We are sure there is movement in the crevasses here. There is a narrow crevasse 30 yards S of the tent. Sandy thinks probably quite rightly, that the tide may influence the shelf ice and we are on the edge of an island - an ice covered mound about 100 ft high. Well, today has been the coldest day I have ever experienced and thank heavens there is no wind.

Len came up on the radio with news that Percy, John, Nigel leave for the Refuge on Sunday. Jim and Bryn are still at the Refuge. I could not get through well. The extra weight of this depot is a problem but we will try taking it all on and if not successful will have to relay.

These low temperatures present their own peculiar problems apart from chilling the extremities. Swivel hooks freeze, the trace twists and dogs get loose or entangled. As soon as one leaves the tent no zips or draw cords work. Distance 2.45 miles.

Next day in complete whiteout it snowed all day soft gentle flakes light as feathers accumulated in depth. The temperature rose to -8F. The wind got up in the evening giving hope that it would pack the surface. In contrast to our outward cracking pace we were conscious of being bogged down like ants in treacle feeding

¹⁶We called the whole glacial trough the Heim but strictly there are two glaciers and the Heim flows South to the Jones Ice Shelf. This one which may have a name flows North to Lallemand Fjord.

¹⁷ Starting a bogged sledge required a coordinated sideways heave on the cowcatcher on the command HUIT to break the static friction. This repeated action strained Sandy's back and was most likely the cause of his severe back problems in later life.

the dogs waist deep in soft snow the level above their heads. As if our return depended on the dogs I was taking an individual interest in the team and noted their characteristics in my diary.

Caesar - poor lead dog excitable fidgety (what an enormous change there was to be in his ability later on!)

Babe - splendid little worker

Johnny - a good puller handicapped with a bad foot

Frankie - 100% worker loves a fight his growl a high-pitched rattle

Buster - castrated very reliable and heavy

Wol - very strong always pulling

Monty - Sly old dog

Alpha - big but soft pup still maturing

Gamma - spirited pup

Sunday 7th July

A disheartening day. More snow had fallen. We tried unsuccessfully to take the full load so relayed half loads and still the pace was painfully slow so that after two hours we had gone half a mile and it was time to pitch tent and return for the other half before darkness fell. I went in front on a rope making a trail in the snow that reached above the knees. The dogs' heads were just above it and they floundered. The sledge turned out of the narrow channel trampled by the dogs and stuck every few yards. It was easy returning for the other load on the trail sunk 2 feet into the snow. The conditions were depressing as snow continued to fall in the evening. It is conceivable that if much deeper it will be hard to progress at all. It felt warm at +9F. Sandy is a very high-spirited companion. We have 12 days dog food which ought to be perfectly sufficient if we can average 2 miles per day which under these conditions appears more than a days work. Distance 0.58 miles.

This note of despondency was certainly lightened by Sandy's company and positive attitude. I was most fortunate to have him, tough and sinewy, forgiving when pemmican was spilt on his bag, humming or singing Highland ditties when the going was tough. He loved to recount his days in the Cairngorms climbing or skiing often solo at weekends from Aberdeen university. His great day was when he ski-ed down through Balmoral arriving at a shut gate just as the queen drove up to it and opened it for her. He described her gracious thanks and royal wave. He just loved Deeside the start for many grand days on the hills and in winter a good training ground for what we were up to now. He was a good climber, survey assistant, sang in tune and above all a good doctor. I was indeed lucky to have him and grateful to Percy the base leader to allocate him to me when the majority of numbers should have kept him the doctor at base.

The weather and surface held us in its grasp while it snowed soft downy flakes continuously for two more days. On the 9th we moved, away at dawn (11.15) myself wading in snow up to my waist now, like going through a foam bath it had little substance to it but the dogs who were below the surface stood up like meerkats to see where I was and got little pull. We made short spurts of 10 to 20 yards and making one mile two hours later was hard work and time to get back for

the other half load before dark. Yet while it was flat calm where we were 2 to 3 miles ahead a strong wind blew across glacier from East to West picking up clouds of drift and sweeping it up the ridges on the side. One could hear the sighing of the wind in the crags while it was dead calm on the shelf ice where we were. It felt warm at +10F, 50 degrees warmer than three days ago and no wind chill. Having seen that cross wind ahead I knew that we had only two to three miles to get a good surface although Sandy disputed this opinion.

The 10th July was a day of repetition and a hard-won half mile of half load before the wind reached gusts to envelop us and start obscuring the track behind. After 0.7 mile returning for the half load the dogs could not even manage that so we had to lighten that, press on to camp, picket the dogs and Sandy and I with pack frames waded back the 200 yards or so to collect the few boxes we had dropped off. In retrospect it was precarious - this feather-like snow would not firmly bridge a crevasse. But thoughts were turning to the few days of supplies we now had if progress remained so slow. One imagines that the elements have a Guiding Hand. In these circumstances nine dogs and two men virtually trapped for a week lying in darkness for 19 hours of the 24 one has the temerity to pray silently for a better surface. This is totally illogical and selfish but down South in these godlike surroundings, influenced too by ones religious upbringing, one did indeed feel extremely humble and vulnerable but never lonely as if the Maker's presence was there just to see how you were doing and how you reacted to test you a wee bit but never one hoped beyond your ability. Our little test was over for the time being and elation followed.

Thursday 11th July

The change has come and what a glorious change. Tonight we have celebrated with chocolate and biscuits, and are very happy, singing, getting things mended and burning the primus late. All this because today we are rid of the slow toil of the Shelf Ice and deep snow.

My hunch about the improved surface on reaching the foot of the glacier proved correct. We broke camp at 11.15 taking the first light load. It was a mile to the ramp and every bit of the way the surface improved. The dogs broke through to start with and then came patches where they could stand on the thin crust. This intermediate stage was tedious for us for we broke through at every step sinking two feet down while the sledge rode the surface. After an hour we reached the slope of the ramp and to our joy the surface was wind packed and hard as marble. To run beside the sledge with the dogs going easily at a trot was a real treat. We returned for the second load and got back to the ramp at 2.00pm. It is a remarkably windswept part of the glacier this. Even today, a relatively calm day, the wind gusted strongly here and the surface was as hard as a pavement and fluted with sastrugi.

We lost no time in getting back into the old rhythm of proper dog sledging and were soon trotting beside the fully laden sledge, the dogs pulling with a will and happy too in this marvellous change of conditions. We travelled up-glacier for 2 hours and covered 6 miles camping not far, possibly 2 miles from the col. The

surface is a little slower under the shelter of the mountains, but we should still cover fair ground, weather permitting, tomorrow. Temp -6F 7.2 miles.

Blessed again with a calm morning we moved slowly up the steep slope to the col on a breakable crust and from the top took a line across to the trig point on the eastern side. The low sunshine cast beautiful lights, photographic weather, as we made a good pace to the foot of the hill by 3.00 pm. Before dark we had views down to Adelaide island across the frozen fjords. We were seeing back into familiar home country. Feeding the dogs two blocks of pemmican each as a reward for some tough going I stupidly slipped the knife and cut my palm - of little matter with a doctor to dress it.

Saturday 13th July.

A lovely day for climbing the trig mountain. Picketed the dogs well and set off at 11.00 in crampons Sandy setting a good pace we reached the top at 12.00. As I had feared we found the former flag, set up over 2 months ago, had blown away. The bamboo had snapped off cleanly near the base and no sign of the flag. It was a perfect day although little sunshine. I took several photos for survey. We built a small cairn around the flag pole with rocks and I took some angles which was cold work. Left the top at 2.00pm. Now blowing strongly.

Sunday 14th July

We got away at 10.50 am on a fast surface after the wind of last night. Going down slope we kept up a good pace all the dogs pulling well except Alpha who, poor pup, is low in spirits and could not keep his feet being dragged along at times mercilessly. We reached the depot and moved it to the North side of the prominent Ice Rise, relaid it with a trig flag and lunched there. It was five miles from camp to the new depot position and had only taken an hour - a wonderful surface. At this point, Babe, the bitch escaped and bucked with her freedom ran off onto the sea ice for about half a mile. We sledged onto the sea ice and stopped after a mile. She caught us up looking very guilty. Here we put Alpha on the sledge as he had completely given up and couldn't stay put on his feet. The 'going' was good and fast and by 3.30pm we had nearly reached the Refuge where we found Percy out on the ice cutting up a seal. He told us that John, Bryn and Jim were out measuring the base line - excellent news. Nigel came out to meet us. There are therefore seven of us at the Refuge. Percy, Nigel and John have been here two days. A terrific dog fight took place on the way up with Taffy and Joseph badly hurt.

Percy and Nigel plan to leave soon for Adelaide Island on a geological trip. Jim, John and Bryn will manhaul back to base in about 3 days time after John has finished the base line measurement. He seems to be doing a very good job of the base line. They measured it one way today and will re-measure tomorrow. Everyone is very well. I believe Len and George are having a hard time keeping things going at base (met obs every 4 hours!).

13 miles.

So ended a 3-week winter jaunt from Horseshoe to Base W in Lallemand Fjord and back to the Blaiklock Refuge. It had little survey merit but was rich in experience and proved the route between the two bases. We had colder temperatures the

next winter but never again such deep snow to contend with. Alpha was too young for the arduous conditions but recovered and became a first class husky and the biggest. Above all Sandy and I shared a venturesome outlook and looked forward to sledging and climbing in the Peninsula in the course of the survey this Spring.

Crampons Angles and Views

It was crowded in the little hut. I don't know where we all found room to sleep for the next 8 days until Percy and Nigel got away with the Churchmen on their geology trip to the Adelaide Island coast. Meantime Sandy and I joined in the base-line and base extension observations in clear cold weather with temps down to -17F. The base line measures on consecutive days agreed very well. I forget the length-about 500 metres. From the terminals we observed angles to the base extension cairns one on Guardian Rock island and one at the Refuge. Similarly we observed the angles to the base terminals from these trigs, a braced quadrilateral. This extended the side length from the Refuge to Guardian Rock to nearly 2 miles.

We observed an astro azimuth from the Refuge trig to Guardian Rock while Len was with us for I remember the first night when he walked off to put a tilley lamp on the trig point (to get the timed angle between stars to a visible light) he missed the island and went on down the fjord for some distance to our concern and teased jokes "Was the pub closed Len?". But we eventually got it.

It was pretty cold observing these first 5 days so we erected a pup tent with primus for the booker and relief of the observer at intervals. The midday sun did not yet rise above the horizon of the Reid glacier, but its daily approach was evident in the northern horizon and the high clouds tinged in pink.

Then suddenly the high pressure broke, a gale from the Northeast blew hard and the temperatures went up to +24F. The frozen felt tacked to the refuge ceiling melted in drips all over. Our bags and sheepskins got soaked. Sandy and I pitched a tent outside to dry them out in. Happily it was only a 3-day gale and cold clear weather returned allowing Nigel and Percy to get away at last just as it was getting dark at 2.00pm and we to get on with the survey.

On the 21st July we were all away early Sandy and I taking the manhaul sledge of John's party with Bryn and Jim in tow for 8 miles to the Bigourdan coast of Pourquoi Pas island. We went via the base line as I wanted to calibrate the sledge wheel.

This for the dogs turned into a tremendous game they had not played before. It entailed doing a number of runs up and down the base line, picking the wheel up when exactly opposite the terminal so that it did not record extra distance while the sledge was wheeled around to commence the return run. The tracks were there the race was on they all got the idea and went whelping back down and around the terminals until we had done about 10 circuits. Excellent sport their grins and wagging tails said.

At the appointed spot 8 miles on their way to Horseshoe Island Sandy and I pitched their tent and left them to climb a 3000 ft ridge to place a trig flag. My diary does not record how they got on but better I hope than our previous attempt on Mount Arronax. It was already 2.00 pm and they only had another 2 hours of light. Sandy and I returned to the refuge in 1.5 hours of fast trotting. Again we were on our

own and commenced a few days of astro observing as for some reason I wanted to improve the fix we already had.

Tuesday 23rd July

I spent the day preparing things for astro work and correcting an adjustment in the theodolite. It has been cold in the hut with -15f outside and a damp feel in the air. Sandy cut a staircase in the snow up to the trig point. We spent 3 hours observing. He booked from inside the pup tent. I had a lot of trouble with the lenses icing up. I am now getting a time signal on the '68 set while Sandy is snug in his bag as it is late. I found Springbok radio and it is strange listening to the liedjies and facetious afrikaans commentator, brings back happy memories. It is a good excuse running the battery while waiting for a time signal. Very clear starry sky tonight. It is lovely listening to liedjies and smoking and burning the midnight lamp the hut feels so warm after 3+ hours observing in -15F.

The paraffin burning obviously gave off bad fumes. Sandy felt unwell next morning. But we repeated the program again next night and he cleared his head chopping up a seal and broke the axe handle.

On the 26th July we again crossed to the foot of the Reid glacier snout to look for a possible ramp. We got up on the extreme eastern end where the cliff was only 10ft high. But it was horribly crevassed. Sandy fell through the edge of a bridge and luckily sat on the edge. The surface felt hollow everywhere and any route up too dangerous. A dog fight ensued. Caesar got off and made for home across the fjord. We sledged the 4 mile front of the glacier under 100ft cliffs. Again that night it was astro work when I felt surprisingly warm although the temperature was -25F. I put this down to my combination of gloves - 2 pairs of silk and one pair of chamois leather and on my feet one pair socks, 2 pairs seaboot stockings, 1 pair duffle slippers and canvas snow boots. My face never gives trouble down to -30 except my ears if not covered with the balaclava. My duvet jacket was marvellous for refuge life and theodolite work and the sheepskin boots invaluable.

Saturday 27th July.

Spent the whole day computing until 0200 am. We were unable to observe as it clouded up. It has been a beautiful day though and the sun shone on the hut for about 30 minutes. The dogs thought it was marvellous and became excited! Sandy burst in to tell me. I came out with my camera and took some snaps of the dogs and the hut. Roll on summertime. It just peeped over the Reid glacier but even at that low altitude it had some warmth in its rays.

(One year later the first sun was even more memorable when sledging across to the Faure islands searching for a lost party).

On the 30th we had a good chilly walk to Depot Ridge in -25F to re-erect a flag pole that had blown away getting there and back in three and a quarter hours not stopping at all. We learnt on a sched with Bryn that HQ had definitely decided to put a Refuge down at Stonington for next year. (In fact we were to reoccupy the old hut). We observed stars for nearly 4 hours in temps of -25F and both my little

fingers got frost bitten. I managed good time signals before and after and paired N and S stars for latitude at transit and E and W stars for time and equal altitudes to cancel out refraction errors as there is probably an inversion of temperature on these nights.

On the radio we heard that Nigel and Percy had to return to base to renew a tent as three poles had snapped in a storm; that George and John were leaving for the west coast of Pourquoi Pas with the Spartans and that he computed the accuracy of the base line as 1/300,000! Bess' pups were doing well and Liz's were on the span now.

On the 7th August our spring climbing and trig programme started with our departure for the Buttress of Perplex Ridge, 13 miles down Laubeuf fjord. This is the imposing 3000 ft rocky buttress that framed our view down the fjord on the left side lying at the NW corner of Pourquoi Pas island. We intended putting a trig point on the top. It was slushy ice four miles out. We rounded the corner into Bigourdan fjord looking for an easier approach than the steep northern face. Where we camped we looked across to Piniero island and wondered if John and George were encamped there.

Thursday 8th August.

We spent the day on the mountain, very interesting but not entirely successful - see sketch map. From camp (leaving the dogs well tethered at 10.20) we climbed around the moraine and onto Two Stake Corrie which gave a good view of both ridges leading to the summits. The western ridge seemed as if it would go so we climbed a little up the glacier flooring the corrie, up some steep glare ice and so onto the ridge. But the ridge steepened towards the summit and became exposed. Sandy in the lead expressed strong doubts as to the safety of the climb so we beat back to the glacier again. One of my leather buckskin gloves dropped out of my waist sling and down a gully. I lost it. We lunched on the glacier and then spent the pm reconnoitring a route up the East ridge leading to the lower summit. This entailed crossing the glacier, so we carefully probed a way across to a medial moraine and left two flags marking the way. We managed another 1500 ft up onto the ridge which should prove a good route up. On the one hand it falls precipitously to the corrie and on the other slopes steeply to the Pourquoi Pas West glacier. We are doubtful about the last 300 ft which runs along the narrow arete separating the North and South corrie headwalls. The arete is heavily corniced on the S side. When we got back to camp at 4.00pm the dogs gave us a very pleasing welcome. There is some fine scenery in this small area - perfect examples of corries and glaciers, ridges, moraines and buttresses and alpine facilities to the full. We wore crampons all day which I regard as essential for safe travel on glaciers and steep snow. It has been very mild at +20F causing us to sweat freely as we climbed. I saw a Snowy petrel flying high up on a crag. It has been a day spent happily on a mountain leaving one with the pleasant sensation of exercised muscles especially so getting fit after 2 weeks computing astro and heavy (by my standards) cigarette smoking.

Friday 9th August.

Left camp at 10.20 fine weather and warm but cloudy high at 10,000ft and low stratus at 2000 ft. So visibility a bit poorly. We climbed fast and reached the corniced ridge in good time but the last quarter mile was slow moving singly on fixed belays on steep glare ice which we had to traverse to keep away from the line of cleavage of the corniced lip. At one point Sandy hesitated in the lead where we found ourselves in a narrow pitch between cracks where the cornice was cleaving away both sides. So I led for a couple of rope lengths and was fortunate to find a solid way around. We did not reach the summit, the last 100 ft being a formidable ice climb which would have been out of the question for theodolite work. But on a slight rise on top of a huge cornice I stuck in the flag and gayed it, sketched and photographed parts of interest on Pourquoi Pas. Light was poor for photos there being little definition. I was glad to see that the ridge of Mt Verne was visible diagonally across the island and some high ground NE of Arronax. Piniero island was visible but the view N and NNE blocked by the summit - a pity. Other views were SW to the Dion islands where it seemed there was a large patch of open water. One had a fine idea of the mountainous aspect of P Pas. It is a problem to carry triangulation across it to Horseshoe. Blaiklock Island was visible but the light poor.

The dogs once again very pleased at our return. We plan to sledge into Whistling Bay tomorrow to inspect a dog route into the Peninsula.

Sat 10th August.

A successful day. It dawned fine with low mist hanging over the sea ice. The temp remained minus all day but the sun shone warmly. We sledged up Laubeuf fjord into Whistling Bay reaching the glacier snout at lunch time. Inspected two possible landing places, the first a ramp in mid glacier and the other a well-defined wind scoop going up the side of the glacier. We decided on the wind scoop although it will mean getting everything piece by piece and dog by dog up a 20 ft near cliff. But the glacier looks travelable. We shall definitely try that way into the Peninsula after this trip. We left at 2.30pm and sledged nonstop 10 miles back into Bigourdan fjord and camped on a pleasant beach at the foot of the Mound on Pourquoi Pas as I want to enlarge the cairn on its summit tomorrow. Much colder and dropping I think to -15F at the moment. Covered over 21.8 miles today. We ran into a belt of slushy sea ice just north of Cape Saenz Pena. Am reading M Allingham 'Fashion in Shrouds'.

Sunday 11th August

Spring has come with refreshing sunshine. Today reminded me of the glorious sunny days when the ship was here. We climbed up the Dome in most perfect calm weather beautiful sunshine from 11.00 to 3.00pm. One was able to work without gloves and tempting to sun bathe though the shade temperature was about 0F. We discovered a miserable heap of collapsed stones all that was left of the cairn of 3 weeks ago by Jim and Bryn. A miserable show. Sandy and I worked for 2 hours heaving out frozen rocks and put up a rather respectable one 5 ft wide and 4'6" high with a bamboo cane and canvas up to 8 ft. I set about changing a film and to my great disappointment found the cassette had not wound on so I have no photos

of the journeys since mid winter. Most disappointing as this is the second time. The dogs are perfectly well. This trig is to connect with the East Heim trig and the mountain on the Central range that I propose to sledge a barrel up to. The triangle will enclose the great 7500' Thor. Because the rays are some 15 miles long the cairns have to be large. I found the spot on the photos. The temp dropped fast again by night. It was -12 this morning and -15 now.

Monday 12th August

We sledged across the bay to Parvenue Point. It was -20 and remained fairly cold all day there being some breeze and the sun losing its effect through low sea ice mist. We found a remarkable little dell - a glacially scoured hollow which we sledged into from the ice on the Bigourdan side. This point is the beginning of a ridge some 2500 ft high to the east of Arronax and we want to find a suitable spot for a trig the conditions being that both the Buttress and a point on Verne ridge will be visible. It will complete a triangle covering Pourquoi Pas island.

We camped at midday in this delightful place, had a brew up, fed the dogs and spent the pm looking for the depot laid last year in the Narrows. We didn't find it but had a most enjoyable walk. Our dell led up to a small ravine which crossed the ridge and down the other side by way of a snow slope to the Narrows. We walked for a couple of miles along the beach, temp -20 and some breeze but keeping walking it was lovely. We prodded into drifts around every prominent boulder but had no luck.

This evening I hung up my inner bag to dry. It has been icing up fast lately with breath condensation.

Next day was the same low mist and cold at -22F but we almost overheated in climbing the long snow ridge to about 3000 ft to reach the top of a featureless snow dome. The view was clear to the Buttress of recent days but I was disappointed that only the summit of Mount Verne was visible to the South the rest blocked by a ridge of Mount Arronax. We guyed a flag and piled snow around the base. I hoped later to move it to yet higher ground so planned to start observing from here when all other trigs were signalised. We descended in 1.5 hours to the dell and camp at -26F.

The refuge was just 5 miles across the fjord. It was -27F on getaway a bit delayed as Frankie broke his trace and Monty escaped. The hut was as cold as outside so we pitched the tent and dried our bags and kit out in the apex meantime enjoying an excellent supper of macaroni cheese and pears. The climbing was giving us a good appetite.

We planned a 10-day trip into the peninsula from the Whistling Bay approach and a return to Base at Horseshoe so took the last 2 gallons paraffin and sufficient rations. The temperature had risen nearly 60 degrees an amazing change perhaps foretelling a storm.

Friday 16th August.

We got away at 11.40 in horrible weather and with a heavy load taking a lot of extra kit such as Nigel's 90lb specimen box and boxes of books destined for base.

We are in for nasty weather I fear as the temp has been up at +30F with strong gusting wind. But the running surface was good as we headed straight for Cape Sanz Pena which we reached at 3.45 pm. On the way we stuck in two places in wet slush getting footwear soaked and the wet snow saturated our clothing. On camping we were soaked through. Such phenomenal weather change and thaw presages trouble when it freezes again harnesses, zips, tent flaps and ties. We camped on the N beach of the little headland that juts out from the Cape. I broke my ice axe digging out a piton in the sea ice. Great pity as we are short at base. As predicted the weather worsened and temperature rose to +34F sleet and wind saturated everything. We lay on our bags reading.

Sunday 18th August

The weather gave us a break. We did not get away until 12.30 delayed also because thought we saw open water on the S horizon so climbed a rise to get a better look. We concluded it was shadow effect. Very difficult breaking camp as with the temperature down to +6F the tent flaps were covered in ice and all traces stiff and frozen. It was a fine day with lovely sunshine and shadow effects. Sledged up to the windscoop at the S corner of Whisling Bay glacier. We got everything up onto the windscoop in two hours - a 60 ft steep snow rise from the sea ice. Sandy shovelled a staircase. We carried the kit up and put in 5 stakes for the dogs - the ice chisel, axe handle, alloy pole and 2 skis. Also used a food box and the tent to tether dogs to. The sledge came up with a rope through a karabiner at the top so we pulled downhill but at the first attempt the ice axe pulled out and the sledge falling back to the ice broke part of the wheel attachment. I repaired it with two pieces of wood from a ration box support lashed around the upright with balloon cord. Sandy meanwhile loaded the sledge and we travelled up glacier for 40 minutes to 5.50pm (evenings getting noticeably longer). The snow scoop proved a vg route onto the glacier. It was steep but the load light and dogs pulled well. Camped under a scree ridge on S side glacier 1.5 miles from the scoop the route so far apparently uncrevassed. Rather soft surface and snowing again but temp good at +10 ideal for sledging.

Tomorrow plan to take empty sledge leaving the camp in situ and travel up under the range looking for the best route up to the top for a trig to overlook Bigourdan fjord and also NW and NE. Hope to see Pineiro and Longridge Head too.

Monday 19th August

Beautiful day. As planned sledged up glacier 1.5 miles to inspect a particular ridge. It proved too steep so we did not give it a try. Sledged back to camp, picketed the dogs and set out at 12.30 to climb the mountain above the camp.

Very warm sun on our backs. It proved easy climbing to a rock ridge which led after half mile to a steep craggy face below the snow slope and summit. It was a fairly exposed climb v enjoyable but not too difficult and all the time the scenery superb. The summit once again presented a delicate problem being on an overhanging cornice which led to certain anxiety in erecting the flag on the highest point. We reached the summit in 3.5 hours, about 3000 ft ascent. As a trig point a little disappointing. The Refuge and Gendarme Rock are not visible but P Pas and Piniero clear and uninterrupted to the North. A quite perfect day - the only cloud some

cumulous over the plateau. A very good view of the north Reid Glacier and the Gravier peaks. Having taken bearings the descent took an hour in sunshine until 5.15 pm the sun setting across Adelaide island.

An incident after unroping after the steep part of the descent I walked unsuspectingly a few yards from our upcoming tracks on the rock ridge on innocent looking snow surface my ice chisel went through a crevasse about 2'6" wide and v deep. I had walked across it and jumped back having opened it up and probed its limits. Lucky. No indication on the surface and was not consciously probing it being a most unlikely spot for such about 4 yards from a moraine covered ridge. Start back to base tomorrow

In two days we covered the 35 miles to base. It was a toboggan ride down to the wind scoop the dogs galloping just ahead of the sledge. Belts of slush ice slowed us crossing to Cape Sanz Pena where we picked up the depoted stores and took a straight course down laubeuf fjord to Cape Lianez having short rest at hourly intervals. We camped at 6.00 pm on pleasant snow-covered rocks. It was a really beautiful day of colourful evening lights a perfect spring day enhanced by seeing 4 seals and about 6 Giant Petrels colonising the rocks where we camped. The temperature fell from zero to -16F.

On the Wednesday it seemed a longer drag along the southern coast of P Pas island and across Bourgois fjord as the visibility closed and we travelled on a compass bearing. At Base Percy and Len had left for the Refuge with a 44-gallon drum of paraffin and more stores taking two sledges. Everyone else very well. We enjoyed a good clean-up and the luxury of records and base comfort. Padding around a warm base hut in slippers, frequent snacks in the kitchen by the warm aga and playing tunes from My Fair Lady and other shows was a little bit of heaven for a short time.

Outside in a temperature of -18F Bessie nursed Chloe a 3-week old bundle of fur in a box under the hut. At sunset on the 23rd Percy and Len arrived back. Percy's feet were badly frost bitten as they had met slush on the way up, his feet had got wet and frozen. When they tried to erect the tent it had not been dried out from previous use and it took them time to separate the frozen sides. As a result his feet were blistered in several places. They also lost Ginger in a dog fight but got the barrel of paraffin up to the refuge.

For ten days we enjoyed base life busy on reports of the journeys done to now and working out astro computations and the trig scheme. With the more powerful radio it was possible to have better 'scheds' with Angus about the trig scheme we were planning to join together. I had heard that I was to be in charge of the Stonington party next year so sent off a cable suggesting a 6-man team. Len introduced me to the art of processing and printing film which was fun getting images of shots taken on the voyage down and the first days at the refuge.

Percy's feet had recovered by the 2nd September and he and Nigel left with the Churchmen intending to get into Adelaide island and be away about 6 weeks.

I had missed one of the tape recordings from home of about 4 weeks back. These recordings were taped at the FIDS office in London from a phone call, probably by Anne Todd, who was so good at keeping in touch with family. Then they were radioed down to Stanley and retransmitted to the base concerned. In my case it was Colin Johnston at Admiralty Bay who had kindly taped the message and now transmitted it to me. I heard Dad's voice speaking that they had all had a few days at Roborough. Bid was top of her scripture class! Mary happy at the Harold Wood Hospital in Birmingham, that JM and Margaret with Mike and Dom the baby had gone out to Rhodesia, that Den was a Squadron Leader (doing his national Service) and he and Mum had gone to an exhibition of Seago's paintings in London. Through the crackle and atmospherics, it was moving to get this belated news from another world.

This comfortable break came to an end and on the 8th September we left base at 10.45 to return to survey in the peninsula from the refuge, well loaded up with two sledges. Sandy and I again with the Admirals (this time with the new pup Zeta who took Gamma's place, she transferring to the Spartans team as a potential leader. Zeta pulled quite well for a 6-month old.

By pure coincidence sledging around the Narrows coast of Pourquoi Pas Sandy saw the depot that we had searched for and failed to find. There was no time to check it out just then. We reached the Refuge warm in shirt sleeves (temp + 22F). John and Len were in residence. It was a damp scene as a thousand drips rained down from the thawing ice in the felt insulation on the ceiling. Happily it was a clear night sky on the 9th so I prevailed on Len to keep a light on the Guardian Rock trig and observed 2 stars E and W for azimuth. I wanted more observations but the warm unsettled weather gave little opportunity over the next week. The hut was used as a wet kitchen for big seal meat fry-ups while tents were more comfortable outside. A clear but windy night on the 12th afforded a fine display of Aurora Borealis to the southwest as I observed stars for position lines.

The weather warmed further, very unseasonal we thought for September, rising to +37 F on the 14th when finally, to improve the hut situation I suggested we tear down all the felt. Len and I did this and it developed into a thorough clean-out all of us working at chipping off the ice on the walls, rooting out the stalagmites in the corners and shovelling buckets of ice off the floors. So in one session we reversed all the accumulated condensation frozen into the fabric. The hut was back to its tongue and groove and started to dry out. I was working out loads for two dog teams to get Sandy and I into the peninsula via the Heim for five weeks observing. But on the 16th it was not the weather that delayed us but Wal and the mother of all dog fights.

They had been on seal for a few days and were rearing to get away on a run to Depot Ridge to bring in three seals cached there. Caesar refused to lead out onto the ice distracted by the Spartans and ran back towards the hut, the team dragging the empty sledge. A fight ensued. As I ran in to disentangle them and separate Wal and Monty, I slipped on the wet compacted ice and had the disconcerting experience of being underneath the free-for-all contestants and experiencing the

enormous strength of Wal as he had my right knee in his jaws and was trying to shake it off. As I could not regain my feet I owned to being temporarily frightened and by the numbing pain. ..*"Having fixed the dogs up Sandy got to work with the medical box and showed extreme deftness in cleaning my leg up, putting 8 stitches in and bandaging it up. It is pretty comfortable but has left me rather incapacitated for some days to follow. Stitches will come out in 10 days and I can forget the idea of sledging for that time. However we have still to get the azimuth and the weather is still foul"*.

The scars remind me to this day of being at the mercy of nine snapping huskies going madly for each other and Wal finding such a defenceless soft target slipping into his squat jaws. He had bitten Jim Exely the year before and had a go at my gloved hand once also. But all was forgiven as part of their spirited and exuberant make up. When you play the film of this team and others that Pete Forster and I took in the following year and relive these days now 45 years back they are to me among the richest experience. These dogs banned now from the Antarctic live on in memory pictures and stories and have helped recently to collect money for the new Dog Shelter for homeless hounds in Paphos Cyprus.

I was lucky not be alone and to have Sandy as companion, survey assistant and doctor. Luckily we did not often give him anything medical to keep his hand in.

It was hopeless weather for astro but I read and cooked seal meat meals and made rapid recovery. On the 22nd I harnessed up Caesar and Babe to the 6 ft manhaul sledge and went out on the tracks to Sandy and Len who were sealing, just as an outing. The leg was getting better. On the 25th, Mum's birthday, fine in the morning, Sandy and I had another seal outing with three dogs on the small sledge. In the evening I observed for azimuth but it was not very successful and I was tired. The next day we had a terrific wind, drift pouring over the shivering hut. I computed all azimuth observations not too happy with the results but decided it must do for now and we should get on with the sledging program. In the previous month there had only been five good travel days. I was sorry for Nigel and Percy laid up on Webb Island.

On the 28th it dawned fine. Zeta had chewed through the thermometer (I hope she did not swallow mercury!) and half my felt mat. I made a bamboo case for the replacement thermometer. We got away at 12.15 after a hectic start in warm sun and stripped while skiing by the sledge. We had in tow the manhaul sledge on which was a 45-gallon drum I wanted as a beacon on a mountain inland. Len and John picked up the depot at the Jones Shelf and followed us up the excellent surface across the Jones Shelf and up the Heim. We did a good 16 miles and camped at the junction of the Heim and Interconnecting glaciers about 1000 ft up. The dogs were busting with energy. A truly glorious day making us sunburnt and fit. The temperature on camping was +6F. The dogs are very noisy with Zeta on her first heat. After 3 weeks on seal and sexed up with scent from Zeta it was like handling wild boars as they spoiled for a fight. The run has done them a lot of good.

Sunday 29th September.

Camped on the col of the Heim/Interconnecting glaciers. A very successful day in spite of the late getaway as we waited for the weather to improve. It blew hard last night and is dull today. From 12.30 to 6.00 pm it was uphill and steep for a mile onto the col. Sandy and I pushed hard and the dogs did magnificently Caesar leading very well. The surface is so far good, a very different story to the April manhaul journey when we took 2 weeks to get here from the Refuge as we are camped near our last outward camp of that trip. We are over 2000' up here. The weather has clamped down with snow and wind. John and Len are camped a quarter mile behind us and will return tomorrow weather permitting having brought up 350 lbs of pemmican and rations for our use in the next 4-5 weeks.

Next day, 30th, my birthday (23rd) a poor day in cloud. Sandy and I took the 6ft sledge to John and Len's camp and loaded their supplies - 4 galls fuel, 4 pemmican, one ration box and an ice axe and bade them goodbye. It was thick weather, but they had a bit of track to follow back so packed up and left. We did not travel as good visibility was needed. I could get no life out of the '68' set and wondered if the battery was flat. Temp +7F.

Tuesday 1st October.

Fine day but poor light and little definition in snow surface. Got away at 10.30 with the complete load of 1400 lbs. It was a mile to the col proper - dogs pulled very well. Descending more steeply to the Reid Glacier for 3 miles we put on a rope brake arrangement which worked well. We reached the Reid at 12.30 and camped beneath a peak which forms the westernmost point of Barrel Mountain. Here will be the main depot. Sandy and I did a recce on ski to investigate a route up this peak but found nothing practicable. Tomorrow we will sledge back on our tracks towards the col with 5 days food and try a possible route up from there. We descended about 1000' from the col to here. Weather seems hopeful. I am keen to get this barrel up as it is a most important point. Sandy has a very great respect for crevasses. Couldn't get any aerial current on the radio tonight - battery very low.

Wednesday 2nd October.

As planned, we made a depot of all stores bar 5 days food and with a light load sledged back up the Reid Interconnection climbing about 1100 ft, camping under the ridge of "barrel" mountain. It was overcast when we got away but calm with +11F. Very soon a headwind (east) got up blowing in our faces, drifting and temps fell to +1F making it cold sledging. Soon after camping at 1.00pm vis was completely blotted out and a strongish wind got up. Read all pm. Have just been out (9.00pm) as Buster and Zeta were loose. It is cold at -4F with a strong wind blowing.

Thursday 3rd October.

Foul weather all day kept us inside. I went out to feed the dogs and erect the aerial. We heard Bryn calling but got no transmission signal. Some fault at large I cannot diagnose. We heard Bryn and Angus. Angus says the ice edge at W is 3 miles from base. His Hanusse bay trip was not a success so their triangulation does not extend

beyond Lallemand fjord. And he does not think he can do the compass traverse of the upper Lallemand fjord and Heim glacier.

Blowing and snowing and nil vis all day. Finished reading 'Pleasure Beach' temp +14F at 4.00pm.

The weather remained too poor next day for an attempt on the summit, but we usefully made a ski foray for a half mile up the slope and considered it ok for 4 dogs to pull the 6ft sledge with barrel up. On return to the camp we set out again to replenish our supplies from the depot staking out the compass course and by luck hitting the depot 2.8 miles down the glacier. We took Caesar, Johnny and Buster with the 6ft sledge, pup tent, 2 ropes and ice axes. Sandy ski-ed roped behind and I navigated. Coming back we picked up the flags easily as the tracks were visible drifted in parts. Three dogs found it heavy going so we will take Babe as well on Barrell mountain. Temp +16F

Saturday 5th October BARREL MOUNTAIN

Fine clear morning we left camp at 10.00 with the 6ft sledge barrel and four dogs. The wind soon got up with drift but not seriously strong enough to deter us tho' unpleasant. I got my right ear frostbitten. Sandy and I roped on skis in front the dogs followed with the sledge. A 1000' climb brought us onto a plateau-like ridge we followed up towards the mountain peak. Put in four marker flags en route. Decided against trying for the summit owing to the wind and unpleasant ridge as approach. We reached a sister peak about 400' lower and not so suitable for survey. The last 300' was very steep but they managed it with help. Blowing very hard on top we put barrel and flag up packing it full of snow. Reached top at 2.00pm (4 hours). Have worked out height above the camp as 2098 ft making it c 5000' above sea level. One seemed top of the world. Splendid views but too cold unpleasant in the wind and +4F temperature to appreciate it. Took 7 photos with sheepskin gloves on.

We descended rapidly with S and I roped to the sledge Sandy skiing behind and I on foot acting as a break when necessary and riding when possible. The flags were all picked up and proved useful as the tracks had drifted over. Reached camp at 3.30 pm hungry and weary the wind now nearly a gale. Am happy that barrel is established but not satisfied with its position. Wish we could communicate with Base to let John know its position. (Details of photos listed)

Sunday 6th October

Very successful day and beautiful weather. Sledged from Barrel camp to the Depot for more paraffin, dog pemmican and odds. Had a bite of lunch there and sledged down the Reid glacier keeping close to the mountains on the eastern side. The surface was hard packed at times glare ice. Dogs kept up a 6mph pace and made good time. We found no crevasses tho' aerial photos show some disturbed areas. Reached the base of the mountain one mile from the S end of the Reid at 2.30pm. It is a beautiful spot with a view down Bigourdan fjord and up the Reid glacier. It was so calm and sunny we made a brew outside the tent and put our bags out to dry in the sun. Marvellous weather!

Making the most of it we set off at 4.00 pm to climb the scree slope and put up a trig. Climbed 1900 ft of continuous scree in warm sun and having reached a

suitable spot built a rock cairn with flag. It was strange being able to see the Refuge and thought we could make out Len's sledge outside. Spent over an hour there and came down. It was sched night but we could not hear Bryn or transmit. Beautiful calm and starry night. Establish trig F tomorrow. Took a number of photos (12 listed).

Days run 9 miles.

Monday 7th October.

Beautiful day again hope it lasts. Got away at 10.20 up the Reid glacier to the mountain at the corner of the Reid and Interconnecting glacier (Trig F). Picketed the dogs and set off up a long slog of 2000 ft scree to a suitable point on the western edge of the mountain. It was very warm and the sun burnt our faces. The glare was intense. We built a good cairn on top of a 20 ft high gendarme which is a prominent feature near the top of the ridge. Took a number of photos (9 panx and 7 colour). The view was grand the best of the Bryand peninsula I have seen. Far below lay the broad glacier with our trail still visible as a thin line drawn along the Reid. We looked across the mountains to the west to Adelaide Island and saw The Gullet and even through to Hanusse Bay. Could also see into Lallemand Fjord and recognise Andressan island. The Gravier peaks towered up in the North. One could see the Refuge and the mountains to the South - Ridge Island and other nameless peaks and the sky was a deep blue and shadows of the mountains cool and restful to the eyes.

Sandy enjoyed the climb very much. It was a laborious descent down scree. Zeta had busied herself eating my felt and Sandy's sheepskin so I gave her a beating. Must curb her mother's awful habits. Got down at 6.00 pm then sledged rapidly across to the depot (2 miles) and camped at 7.00 pm. It is quite cold at +6F and temp is falling fast after sunset. We have sore eyes. It's been a long day. More weather like this and we will finish. Days run 6.44m

Next day the weather changed for the worse blowing and snowing but we travelled across the glacier 4.8 miles to camp at the foot of Trig J. We put the tent up in a high wind.

Wednesday 9th October.

We could not do any survey with visibility poor. Must wait for a fine day to observe from this trig. I walked up an innocent looking snow slope to get a rock specimen and put a foot through a crevasse which was alarming and taught me a lesson. Probing carefully returning to the tent I discovered two more tho' there was no surface indication. I felt relieved at not having gone through. Finished reading Nazis in Norway. On Sched Bryn called but gave no news, our transmitter not working. Heard from W that Angus and John Thorne have sledged off up to the plateau in an effort to find Denis Goldring and Aussie Conachie cut off by open water and are north of Cape Rey. There is a big depot there tho'. Angus is to try to get down to the sea ice from the plateau. Hope weather clears. Temp +9F this morning.

Thursday 10th Oct.

Too misty to observe. Did little all day. Bryn called us giving hints about the '68 set

but all to no purpose I am afraid. However, we heard that John and Len have seen our cairn at trig G on the mountain overlooking the Reid, which is good.

Friday 11th October.

Fine beautiful day. Climbed heavily laden up the ridge with theodolite, tripod, barometer, clothes, spade etc. Got to the top in two hours a climb of 1200ft. A breeze sprang up it was bitterly cold at +3F observing for 3 hours. My feet got very cold. Observing was not too accurate but will have to do. I took a panorama of photos and 2 on the way down of Reid Glacier and the mountain ridge. We came down quickly and spent the evening duplicating the angles in another book in ink and reducing them We go from here to Trig H in Whistling Bay put up in August. (18 shots detailed). Temp +4F. 6.00pm baro rising.

Sat 12th October.

Left camp J at 10.15 sledging up the Reid to the mountain at the S corner of the Reid and Whistling Bay glaciers. From there sledged down the WB glacier keeping close to its southern side. We had an unpleasant experience could have been nasty. Stopped short of two wide bridged crevasses on a steep piece of down slope and I took out the photos to try to prospect a route around this patch of crevassing. Suddenly while both of us were going through the photos the dogs started off without any command and puled straight across the two crevasses before we were able to overturn the sledge and stop them. They were both about 15 to 20 ft wide and the snow bridges sunk beneath the glacier surface. That we did not break through was very fortunate. They were anxious moments. We were in the middle of a bad area and sought to get onto better ground by going along the line of cracks and down slope. While turning the sledge Wal got free and started a fight. I broke it up with a ski. Wal very disconsolate with two bites in a leg.

We sledged on down glacier to our old camp site of August the weather deteriorating all the while. Camped midday having come 7.8 miles from J. We are 1.5 miles from Laubeuf fjord and it is satisfying that we have now crossed the peninsula from East to West and South to North. Blowing hard tonight. Radio news -Percy and Nigel are back from an East/West crossing of Adelaide and visited Dion islands. Len and John back for primus repairs. Messages for me but not passed on.

For two days it blew hard the wind coming in great gusts that shook the tent and calm between. The temperature stayed around +10F. On Tuesday 15th fine weather returned.

Cold in shade -2F in camp but warm in gorgeous sunshine we climbed steadily with packs of kit 40-50 lbs 2,700 ft to the summit. Astonishing that our footprints of two months ago stood up plainly in relief. Lunched 300ft below the summit. On top found the flag had disappeared but there was a lump of snow I must have observed onto from J and on this point set up the theodolite. It was a joy to observe in the warm sun. The results were pleasing. I could not see G against a rock background which was a pity. Stayed up there 3 hours returning in warm evening sunshine. Took 7 photos on the summit. We leave now for trig G via the depot. If fine weather lasts we will soon finish.

Wed 16th October Trig G

Did a good day's sledging camping tonight under Trig G (southern end of the Reid). The surface on Whistling Bay glacier was very good. Sandy ski-ed and I ran all day. Left camp at 10.45 arriving depot 1.00 and lunched there. It was Sandy's idea to move the depot to the foot of F mountain which we did on our way down the Reid glacier. Travelled fast down glacier reaching camp at 3.00 pm having sledged 15.4 miles for the day.

It's been warm all day at +18F with no wind but overcast. I walked to a point on the scree slope of the mountain from which I could see Guardian Roack and Extension islet but no sign of John and Len. If weather is good we will observe this trig tomorrow. Have decided to re-observe J so shall proceed there after this, pity.

Thursday 17th October Trig G

Very full day. Beautiful weather - so good that I have a slight attack of snow blindness tonight which is painful. Sandy does not seem so prone to it (perhaps because he is not observing without goggles). We climbed the mountain and observed two good rounds I think. Saw a pup tent at the Refuge trig point. We climbed higher up the mountain afterwards. It was a long tedious descent on loose scree with heavy packs. I broke a crampon. My eyes were sore. We had a brew at the tent and rest and then decided to sledge in the evening light up the glacier 8 miles to trig mountain J where we camped five nights ago. Have decided to re-observe this point. The wind had taken away the pemmican tin and flag from G - no sign of it. Dogs went awfully well this evening on good surface. I ski-ed and Sandy ran. Left 6.00 pm and camped at 8.00 pm. Beautiful evening just hope my eyes are better to observe tomorrow.

8.7 miles

As things worked out the weather laid us up for two days. We heard that Angus and John are camped on the snout of the West Gould glacier entering Darbel Bay, that the glacier is a 'good highway' Our temp +9F

Sunday 20th October Obs'd J camped F

Beautiful day we climbed the mountain in astonishingly hot sunshine so hot that it was a great effort. The glare was intense. Only it was lovely and we observed leisurely. There was thick mist over the sea ice and up glacier to about 1000' but above that not a cloud in the sky. We came down to camp at 3.00 pm had a cupper and sledged across the Reid Glacier 6 miles to the foot of F where we have the depot containing 10 more days of everything. A vg day it has been. My goggles are unavoidable on days like today. Eyes can't take the glare. Temp +6F 5.6 miles

Monday 21st October.

We are lucky with the weather again. Climbed a long scree slope to F and observed. Results not too good so did 4 rounds. We rebuilt the cairn and got back down at 3.15 pm. It was bit cold on top with a breeze and +12F but a beautiful view. Lot of low cloud in Lallemand fjord and coming through The Gullet. After tea we sledged the 3 miles and 1000' climb to the col of the Interconnecting Glacier and camped on our old site of 3 weeks ago ready for obs of the Barrel tomorrow, weather

permitting. Heard on radio that the Hope bay party is up on the plateau. No more news of Angus. Distance 3.4 m.

Three days of relative inactivity followed waiting for observable weather. It was nice to hear Sandy chuckling as he read 'Pleasure Beach' transporting himself to other climes and female company. I noted that I wrote some poetry but not in my diary to inflict the reader. (If it turns up later I will see if it is printable). We heard that Angus and John found Denis and Aussie whose sledge had gone through the ice and spoiled cameras. Penguins are returning to the rookery at Base W. John Rothera and Len Maloney were still at the Refuge behind schedule for Laubeuf fjord.

Friday 25th October.

A day that has made up for the three preceding. Tonight camped at the Heim Col depot set up 28th September when John and Len were with us. And we have observed the 'Barrel'. We used the same 4 dogs as before (Caesar, Babe, Johnny and Buster) and the 6ft sledge. The surface was better than before so we climbed the 2000' effortlessly. Beautiful day but on the summit a strong breeze blew which made it bitterly cold. I have seldom if ever been so cold observing. What made it worse was that the theodolite stiffened and would not 'swing' properly so had to do two rounds twice taking some time. Temp was +8F on top but the strongish wind made it seem far lower. Took 7 photos. Got back to camp at 4.00pm. It felt warm as soon as we got off the summit. After a rest and a feed we broke camp digging out the 12 ft Nansen and started off at 6.30 pm in evening light towards the Heim glacier. The surface was not too hard but on ski it was not noticed and with slope in favour we made good speed. 'Twas a beautiful evening, the lights shining on the peaks on either hand. The rocks looked mauve and snow reddish and purple clouds in the sky. We reached the depot at 9.30 pm the dogs hungry like wolves. Splendid day!

10.1 miles

Saturday 26th October.

We sledged this morning across the Heim glacier to inspect a possible trig point on the other side. Unfortunately it was no good. Wind started freshening from the South (?North) but we put our backs to it and sledged rapidly down the Heim to the Jones Ice Shelf. To our great surprise we found our normal route off the glacier pretty crevassed either due to former snow cover being eroded away or to new developments. Johnny went down one but was immediately pulled out and scrambled over the lip. We stopped just in time before a large bridged crevasse although the dogs were standing on it. I got them off it to the side and we went around. We made good time on a good surface reaching the Refuge at 4.30 pm. The sea ice was most fluted and windswept making it rough for ski-ing but fast. John and Len had left yesterday. The hut in good shape. Sandy fed the 'boys' seal meat which they have well deserved. We ourselves had a luxurious meal. We read in the refuge diary that John and Len have observed the four local points, that John is to be transferred to W next year to continue this triangulation. I find no plane table here which surprises me. And no radio spares left as expected except two crystals. Sandy and I may make a quick visit to Base for re-fitting before starting

our next main trip-a compass traverse of the Forrel and Heim Glaciers. There is also an azimuth to complete here and Q to observe on Pourquoi Pas. 17.8 miles.

It was a good surface and fine weather for a non-stop run down Bourgois fjord to Horseshoe base. We did it in four hours. Those at base were all very well and came out to admire the clean condition of the Admirals compared to the Churchmen who having been on base were soiled with blubber. I spoke to Len and John on the radio but all we could hear from them was a position, camped at Longridge Head.

Unexpectedly, next day the 28th we had a visit from three Argentinians from San Martin base with one 13-dog team paying us a social visit. Otto the glaciologist reported that the Stonington hut floor was under about a foot of ice. Their dogs were miserable specimens, but we admired some of their clothing and equipment. They brought a side of beef for us. We in turn particularly Percy matched them glass for glass in a convivial evening and some trading was done next day giving them cigarettes chocolate and pickles in exchange for their gifts of gloves, fur helmets and slippers. On the second morning feeling warm bonhomie from the beef supper cooked by Sandy we bid them a fond farewell. They were to visit later by helicopter when their ship was in.

On the 1st November we prepared loads for the Refuge including 6 cans of paraffin and 10 tins pemmican and Sandy checked over the sledge. SecFids signalled that John Paisley would be appointed leader here next year and myself at Stonington. On the 2nd we left with two sledges, Percy driving the Churchmen. It was so warm that Sandy and I had our shirts off and ski-ing along got very burnt on the shoulders. The admirals full of vim we made good progress. In the Narrows we met John and Len returning to base and caught up with news. He, to be based at W next year, has a scheme for a refuge on Adelaide island. He has not done the further azimuth so we have that to do as well as point Q on P Pas. Then we can continue with the Heim/Forrel traverse. After all the trouble Bryn went to checking the '68 set I could not get through to him. Days run 21.5 miles.

It was too windy to do a morning sun observation for azimuth so as Percy's sledge wheel needed calibration I harnessed Babe, Caesar and Buster to the 6 ft sledge to which the rev counter wheel was lashed and had great fun playing the Calibration Game with the dogs. First I made a straight trail between the terminals 3000' apart and then made six runs back and forth the dogs racing and yelping. The wind died and at 5.00 pm we all went up to the trig point where I observed some rounds on the west sun. These computed out encouragingly that night. (I would be interested to see all the observations now knowing much more about statistical analysis than I did then because it seems we had taken a number of star sights for azimuth before and my anxiety to improve the result was keeping us from other work.)

It was too windy for the Pourquoi Pas point Q although Percy made an early breakfast both mornings. He was a good early riser because his bladder would not allow him to lie in more than four hours. On the 5th November we got a morning

sun for azimuth then Percy sledged Sandy and me across to the east side of Blaiklock leaving us to climb a steep 1500' gully to the top of the ridge where it was very windy. We glissaded down and took an interesting cross-country route back ski-ing up 'blind' bay to the glacier between the bay and Jones Shelf, up the glacier to the western ridge of Blaiklock Island and a 2 mile run to the hut over a sastrugi surface.

There followed nine consecutive days of strong wind and high temperatures up to +35F which cleared the beach of snow starting rivulets, leaving snow beds like heavy porridge in which you sank past your knees and pools developed over the sea-ice. The dogs were troublesome as pickets would not hold in the soft snow. 'Deadman' pickets were best. On the 13th it rose to +39F and rained much of the day! Not having waders we grew accustomed to wet feet and when sealing, the sledge part floating through pools a foot deep.

On the 14th Percy woke me with "A good day I think". It was during daylight hours enabling me to observe morning and afternoon sun for azimuth and warm windy weather returned again for several days but the 19th dawned early for a sun sight which computed well so at last I noted "I think perhaps the azimuth is good enough now. All in all it has taken a month to get these results". We had Q to observe still. We were getting a bit worried about the state of the fjord ice with the extensive melt pools. Influenced too by one sched which advised Horseshoe that the Biscoe hoped to get into Marguerite Bay in early January although I had not heard of a ship getting in that early before. But a traverse up the Heim and Forrel glaciers was not likely to be on so late in the season now. Radio communication with Bryn at Horseshoe base was very poor. On the 24th we could hear him assuming that we were camped on the Forrel glacier to which I sent a series of Ns (dash dot repeated) which he read as confirmation Cs (dash dot dash dot). So easily can messages be misunderstood.¹⁸ In fact radios served little purpose at all should there be an emergency accident. In the several weeks that Sandy and I were climbing mountains the '68 set never worked on transmission and the only indication that Base knew that all was well with us was when John Rothera saw that a beacon had been erected on a planned hill top.

On the 25th a warm cloudy day eventful for a fight between the Churchmen and the Admirals when they pulled their pickets in the soft snow and for the fact that young Zeta produced 8 pups confounding Sandy's opinion of two weeks before that she was not pregnant. But as if reading our mind that she could not keep them she tried to eat some and the others we put away. Poor unsettled Zeta a gruesome business.

Friday 29th November dawned fine and clear.

We observed Q! Got away at 0900 banking on getting Q observed and returning to the Refuge in one day. The run across the flooded sea ice to the shore of

¹⁸A bit like that classic "Send reinforcements am going to advance" which was read as "Send three and fourpence we're going to a dance"

Pourquoi Pas was interesting for the fact that we sledged across through an average depth of 8" of water mostly slush but pools of extensive flooded ice up to a foot deep. The dogs don't seem to mind but lose their pull in the deeper parts. We picketed them on a snow slope anchoring the pickets with rocks. Changed our footwear and set off up a long scree drag climbing solely in a vest and yet very hot getting sunburnt. From the Narrows the climb to the top of Q is 3000' and a 6 mile steady gradient, the latter half along a snow ridge where the glare was very strong. Found the cairn still standing and observed two rounds in a vest and bare hands - something quite new - and yet felt hot. Tho' wonderful having such pleasant temperatures it is pitiful to see this excellent ice getting rotten. I could not see trig H which was a great pity¹⁹. I observed from 2.00 to 4.00 pm and we got back to the dogs by 6.00. Down the rock screes one heard constantly the sound of little runnels of water. Changed footwear and splashed back to the refuge. In the 'throat' of the Narrows two big bergs have broken loose and opened up a stretch of water.

In view of the ice deterioration we have decided against the risk of staying on longer and doing the Heim-Forrel trip. Therefor planning to return to base while the going is 'good'. We all feel pretty tired tonight. It has been a good day.

Saturday 30th November and Sunday 1st December merged into one.

Spent a lazy day pottering about the Refuge packing gear into boxes, sunbathing on the roof and taking final photos. I took colour shots including two of the hut, a pair of skuas, a beautiful mossy stream on the beach, a number of close-ups of the Admirals and one of 'stone-rings' on the beach²⁰. We planned to get away by midnight and get the coldest period of the day. It was eventful as expected for the dogs were intensely keen. Percy (with the Churchmen) had to stop after a few yards to go back for his ice axe. As soon as he had walked away his team pulled their picket and came after the Admirals. We had stopped to wait a little way ahead and Sandy managed to intercept them. Then a couple of dogs got off and so it went on. Once started, we sledged steadily with soaking feet throughout the run, the surface rotten with sludge and water up to a foot deep. The sludge built up as ice balls between my skis so I abandoned them walking and running. There were parts where the sledge rode on the surface and towards 05:00 am the temperature fell and with a breeze formed a crust of ice 1/2" thick. The sledge ran on this towards the end but running beside one broke through like breaking glass and splashed to the original ice below. Tho' my body kept warm feet cooled off in the water becoming numb but soon returned to normal at base. With the splashing of water and air temp below freezing caused great quantities of ice to form on the dogs' coats, harnesses, sledge etc. We reached base at 07:00 am. Len, who was on 'night met' came out to meet us. Percy was a 1/4 hour behind. Zeta was tired after a long

¹⁹This was a double flag on a bamboo pole set into a pemmican tin 50 yards west of an overhanging summit cornice. Perhaps it had blown away in the few weeks interim. It proved later to be vital ray in computation of the trig scheme.

²⁰The action of freeze and thaw in sorting surface boulders remains to me a mystery.

night (and her recent confinement!) but most of the other dogs full of go. John made a very good breakfast. I had a thorough wash and shave and slept for 2 hours until lunch spending two hours after carting the sledge loads piece by piece to the hut, clearing my bunk and sorting things out.

On arrival back we were told the dreadful news of the damage to Shackleton nipped by pack ice off Signy island and limping now to South Georgia with a hole in the side. She will not be doing any relief work this year which puts a double burden on the Biscoe requiring pretty big changes of plans.

So ended our nine months of mostly active and memorable time at the Blaiklock refuge and the beginning of three months enjoyable summer on Horseshoe island.

Island Summer

The field survey was over for the year but much remained at base in computation, reports, film processing, sealing for dog food and planning for next year at Stonington. We little thought with all the talk of early relief by the Biscoe that we would still have three months before the ship could get in, such was the rotten state of the ice in the fjords, but in fact we were lucky to be relieved at all. Marguerite Bay had always proved difficult to get into even by ice breakers. But with sealing for dog food, base activities and ski outings we kept very fit and well. I won't skip much because day-to-day diary entries show just how much relief plans in Marguerite Bay were at the mercy of packice conditions further north. Also, to answer the common question asked when you say you have been 'Down South' What on earth did you find to do?. Horseshoe island in the summer was the perfect place for strenuous ski and local sledging activity and a more congenial group of Fids to share it with I could not imagine.

Percy Guyver with his cockney sense of humour ran a good base with its daily and weekly duties evenly shared in a banter of humour and colourful if course language. He was 20 years older than most of us except Bryn Roberts, the radio officer, who was also in his early 40s, and aware that he had not had the privilege of an education to 'talk more proper like' but made up for it in liberal sprinkling of f-words and analogies to parts of a monkey's anatomy. We came from completely different backgrounds but got on very well. His expertise was diesel engines and like Kipling's M'Andrew could boast "The sins o' four and forty years, all up and down the seas, Clack an' repeat like valves half-fed ... Forgie's our trespasses". We had our own incentives for reports on survey or geology or whatever, but we gave him every support to run a happy base, gash duties, cook, weekly scrub-out and tidy out, dog feeding, snow for the water tank etc. We gave him our support and he got ours.

Within a couple of days referring to the survey text books at base I realised that all my azimuth computations done at the Refuge used an incorrect formula so all had to be redone. By the 6th December I completed them and a report on the azimuth. It was a blow to find that one key ray was missing to prevent computation of the triangulation into Laubeuf fjord. Office work was well balanced with outings and sealing, distasteful but necessary in view of the inadequate dog feed, to keep huskies in their best condition.

Tuesday 10th Dec.

This morning, bright sunny and very warm Sandy and I took the Admirals into the fjord to fetch in 3 seals killed yesterday (by Sandy and Percy). It was a very enjoyable run which the dogs enjoyed full of 'pep' with the empty sledge fairly skating across the ice. I worked on survey photographs in the pm and evening. I am on cook tomorrow as Len, whose turn it really is, is on night 'met' duty. Sandy went for a walk to Beacon Head about a mile away looking for tern's nests but instead found a gull's with two eggs. Later he and Percy killed a seal in Norsel Cove.

Thursday 12th Dec.

Nigel and George arrived back at 7.00 am (from their summer journey which included a crossing of Adelaide Island and a visit to the Dion Islands). They had sledged today from Broken Island in Square Bay. During the last few days they had had pool areas where the sledge actually floated. They are both well and fit. I finished the numbering and sorting of survey photographs and will now start the computations. Had a brief radio talk with Jim Madell (Base W) and heard that they have still not observed a sun azimuth.

Friday 13th Dec.

I helped George dismantle the 'Caboose' food store (a tarpaulin covered supply of food boxes). Len did a pilot balloon this evening. He bet me that I could not shoot it down with a .22 one minute after its release. He won! It went up to 50,000 feet.²¹ It is very clear this evening I have just taken colour photos of Mount Verne with the low sun striking the slopes. The sun does not now set at all. I had a letter telegram from dad saying that JM and Margaret sail on the 19th for Cyrene mission²² (via Cape Town) and Den started a new job at Hammersmith hospital.

Saturday 14th Dec.

A few hours in the survey office. But after tea Len and I went skiing and had a splendid couple of hours the surface being ideal at the present - smooth hard and fast. Climbed half way up Gendarme Peak. It is just freezing, the air dry and bracing. Len and I could not see the ice edge with visibility a 30 miles horizon. After supper we turned to for the Saturday night scrub out. Then I went for a two hour ski and walk which developed from a visit to 'the boys' on the span all extremely full of bounce and affection. It being a splendid evening I ski-ed in the direction of Beacon Head which looks out to Marguerite Bay finding little gullies and cliffs I had not seen before. A strongish wind of 30 knots is blowing tonight. When asked, Nigel said he would prefer The Churchmen team next year so I will offer the Spartans to Bryn.

He was delighted to be asked to have his own team next year as I joined him to make an ice observation high on Gendarme Peak (ice to the horizon). We ski-ed until supper and a good one it was cooked by George. I had just settled down to work when Len came in asking if I would like a break skiing which was irresistible. We climbed again over 1000 ft the low southern sun coloured the rocks and snow. We ski-ed down some hard steep stuff and found a frozen pond on the ridge and a 3 ft high ice cliff which made an excellent little jump.

²¹It was information from these radio-sonde high altitude data that alerted Joe Farman to the loss of ozone in the upper atmosphere just a few years later. If ever there was a significant alert to man's damage with excessive Cfc's this was it but we were still unaware of Global Warming.

²²Cyrene 20 miles from Bulawayo was founded by Ned Patterson and featured in Part 1 (Berg Veldt and River) first chapter.

17th December

Mostly spent in the survey office computing triangulation sides. I did get out for two hours before supper when Sandy and I took 3 dogs and the small sledge to fetch in a crabeater seal. The ice is returning to its previous rotten state. Even on ski one goes down a foot and stepping off skis down about 3 feet. The lucky dogs - Caesar, Buster and Frankie- immensely enjoyed the run. The others were very disappointed especially Babe who put her muzzle against my neck and made crooning noises. I wish she would put on a bit of weight and a better coat for next winter. She has miserable physique but a splendid husky spirit.

On the 22nd, a Sunday, I visited the sea caves at the back of Norsel Cove catching and reflecting the morning sun and sat there for a bit while the pups played games on the sea-ice in front. (What innocent creatures blissfully unaware of the adventures they would have in the Moomins team next year when the ice blew out and killed their drivers and a few years later when a storm ended their lives and that of their drivers).

On Xmas eve a carol service was broadcast from BBC1. The Duke of E. sent his greetings picturing the Fids he was talking to from his summer visit. Greetings were sent to and received from all bases including the Argentinian base at St. Martin. Xmas day itself was especially marked by the Queen's speech and I made a special note of the appreciation of all for the wine and other delicate things produced by Nigel and the crackers by George. John made an iced cake which looked like a section of the Grahamland Plateau. I presented Percy with a little book on navigating and to others enlargements of photos. Boxing Day brought us reluctantly back to reality, in my case shifting 25 sacks of coal to the coal hole, making an improved design of soft ski binding and writing up notes of prussik-sliding out of a crevasse following hours of practice.²³ Caesar played maddening games when trying to lead him away from base next morning with Bryn (who drove 5 of the Spartans) for a day on Lagotellerie Island penguin rookery. He would not lead out and the empty sledge could not be braked as he repeatedly turned back towards the span. After half an hour Percy saw what was going on and came down to lead him away on course. With a newly killed seal loaded up the dogs were easily controlled. The chicks were all in new downy coats. We found an adelic ringed by Cecil Scotland the previous year. Climbing to the top about 800 ft across lovely mossy patches, and finding skua nests with pairs of eggs, we looked west but saw no ice edge; there was however a lead that ran from the island to Camp Point. We only reached back to base at 11:00 pm, typical of long summer days out.

Wednesday 1st January 1958. Appropriately thinking ahead to this second year, sledging gear indents and seals occupied the day.

A number of tents have to be repaired before the Biscoe gets here. I started on a

²³The prussik knot can be slid up the standing rope without any weight on it but when standing on the sling loop it holds so the idea is alternately sliding each sling up to get out of a crevasse - not so simple as it sounds.

pup tent chewed by Liz at the Refuge. Then did most of the survey expendable inventory. Went sealing with Bryn before supper and brought in two with his 5 Spartan team. Again after supper went out with Len and brought in another two giving now 22 here. This base needs 20 for this year so allowing for 8 to be consumed next month we need another 6. Then we will collect as many as possible for the ship to take to Stonington. I would like 45 to last 3 teams 3 months. The sea ice is hard glare ice and very difficult to keep one's feet. With the wind behind one can ski along at 10 mph. Percy climbed up Gendarme Peak and saw the ice edge at the Dions 35 miles away. He and I worked on the stationery indent for Stonington until 01:00 am.

Saturday 4th January.

I have been meaning for some time to make a good plane-table case, drift proof with zip and pockets. I spent all day machining this, quite a serviceable one (I think). I had brought the strong zip down.

We scrubbed out the hut after supper then Len and I took 5 Admirals out in search of seal. Strong wind and the ice was black and shiny. We sledged around to Gendarme Bay without seeing any. Buster's paws are raw and bleeding with cuts from the ice. We found a big Weddel on the way back and picked up another which Percy and George had killed today. These are the first two of the cache for Stonington. The Biscoe is still at F. Hillary reached the pole! Heard on radio news.

Sunday 5th January.

Odd jobs and nailed two crates for Stonington. Spoke to Peter Forster and George McLeod by radio - they aboard the Biscoe. Peter F said the Ronne Photos he was bringing down do not need aerial triangulation. George described the dog team coming down from Anvers.

On the 6th the radio news was interesting on the TAE Expedition with Hillary having reached the pole ahead of Fuchs and having the temerity to advise Fuchs to abandon the crossing when he reaches the pole, fly out and continue it in the next year. I could imagine Bunny's feelings and his reply was predictable. 46 years earlier Amundson reached the pole nearly 3 weeks earlier in the season with dogs. On the 16th January 1912 Scott and his party manhauling came upon Amundson's tent with great disappointment. Fuchs with his snowcats and 2 dog teams arrived on the 19th.

Sunday 19th January.

Today marked the beginning of the break up of the sea-ice in Marguerite Bay. Early, Bryn reported a lead a mile wide from Lagotellerie to Pourquoi Pas. He and I sledged past Beacon Head to an ice berg where Sandy had killed and left a seal. We found three Crabeaters there. From here it looked as if open water stretched to the horizon from an ice edge only half a mile away. When we got back we found we had dropped the whip somewhere so, after supper, again sledged down there. There was a strong wind gusting to 40 knots and the ice was hard and black. We found the whip. We then decided to climb Gendarme Peak to get a good view. Left base at 10:00 pm carrying ski which we deposited at the top of the snow slope and got to the top at 11:45 pm. Very windy indeed. The large lead had widened to

about 8 miles along the Pourquoi Pas coast and open water had appeared in numerous areas in the bay. But the ice in the fjords still held. We came down quickly enjoying the ski run very much with the wind behind our backs in Homing Bay, getting in at half past midnight..

The near ice edge had brought in huge pods of crabeater seals to bask on the ice edge. It was a long day of unmitigated slaughter - heaven forgive us these crimes like in the old fur seal hunting days we revelled in the bountiful supply of meat for the dogs. By midnight we had stacked on the pile 35 seals- 28 for Stonington and 7 more for this base. After supper, Len, Sandy, Bryn and I hauled 28 off the ice up onto the jetty.

The Biscoe's attempt to reach W interested us greatly with the apparent ice breakup. But she was held fast in ice off Cape Evenson. Sandy put Zola down on the 22nd. Since Liz had bitten her badly she had never recovered. He did a PM and found that her neck had been dislocated by the bite. She was a game little bitch and we will all miss the sight of her trotting along with her head held stiffly to one side.

On the 24th a gale blew up starting at 7.00pm and by 9.00 pm a lead opened up running up fjord. We witnessed the break up of the fjord ice in front of the base and the first time for 8 months looked across open water to Pourquoi Pas. The wind blowing at 55 knots moved the giant berg, behind which we had found so many crabeaters, majestically down fjord. Meantime the Biscoe stayed stuck off Cape Evenson.

My cook day on the 26th was divided in attention between the Aga and the spectacle through the main window watching bergs of every shape and size drifting past as if our hut was drifting in the opposite direction. However, pleased to note that I produced 'Toad-in-the-hole', a jam roll, Queens cakes and a 6-loaf bake in an attempt to assuage appetites. Noting that the Biscoe was still stuck in ice I wondered what procedure could be taken should she fail to extricate herself in the next 4 weeks.

I loved outings with the pups Yana and Cocoa who accompanied me to the far side of Homing Bay tumbling roly-poly down the steep snow slopes. Two skuas spent an intensive half hour dive-bombing the pups much to their bewilderment but they came to no harm. We had trespassed into their nesting area but the site eluded us. Their quizzical looks heads on one side said 'What have I done wrong?' Brave pups they rushed off tails down looking back to check that I was coming.

At the end of January, the Biscoe, still beset, was recalled to Hope bay when she could extricate herself. The pressure for getting ready - letters, photos, diaries, equipment - was relaxed. I suggested to Sandy a trip to the far side of the island where I could map a glacier and measure movement. We planned to go by boat and put a camp at the foot of the glacier that flows north at the southern end of the island. It would be a good way of passing a stagnant period.

But then the Biscoe altered her plan more in accordance with the will of the packice than anything else because it was announced on the 4th February that she would now attempt to relieve Base W and after that to get to us in Marguerite bay. So instead of a few days away we settled for one long one to climb Brown Willie.

Saturday 8th Feb 1958

It has been the most splendid day I have spent on the island, an attempt on Brown Willie in a day. We decided this after breakfast so it was not until 10.45 that we got away. Yesterday's wind had dropped it was a beautiful day. We travelled light with ski and essential climbing kit; first to the ridge of Gendarme Peak (1000') and down to Gendarme Bay on a hard icy surface. We decided on trying to cross the rotten ice in Gendarme Bay rather than cross the two glacier tongues to get to the foot of Brown Willie. We managed it on ski over an area where loose floes were packed together so we could ski from floe to floe. Reached the foot of the mountain at 1.15pm after 2.5 hours fast going. We lunched in the splendid sunshine then started up 500' of steep snow which brought us to a glaciated hollow in which lay a magnificent lake of glacial melt water blue-green in colour fed by a glacier coming down the slopes of the 'Cairngorm'.

We climbed up the screes above the lake but were soon having difficulty on the steeper rubbly rock above. We tried two other places but in both felt unsure of our safety on the steep rock covered with fine rubble. Having felt sure of getting to the top we were disappointed in having to come down. From the lake we followed a lateral moraine until we could see through to the south coast of Square Bay and here took a couple of photographs. We drank from the lake then glissaded down snow to the Bay. Had a longish rest and feed next to a melt stream and then started back over the Bay. We took a different route back climbing around the east side of Gendarme peak. It was so beautiful coming back that we took several colour photos. Saw some big tabular bergs in Square Bay, numerous terns, 2 gulls, several skuas, 1 snowy petrel and several seals. We had a long ski descent to Homing Bay and there we stopped in the warm sun. Burnt with the long outing I refreshed myself with a very quick dip in the sea. Although Brown Willie remains unclimbed (by us) we have had a most enjoyable day. It is probably our last outing together but Sandy will remember this day as will I. Got in at 8.30 pm.

The anniversary of the Biscoe's relief last year passed. She relieved W alright on the 13th February and reached the southwestern end of Adelaide on the 14th where pack blocked any entrance further. On the 15th she tried as far south as 72 degrees finding no entry so retraced her route to try Hanusse Bay and through The Gullet. But she came up against fast ice. Then to our disappointment she steamed north on the 17th to relieve Hope Bay and try us again in early March. Thin ice began to form in Homing Bay the first sign of a freeze up again.

On the 20th February a coded telegram from Johnny Green (SecFids) caused some speculation as Percy read it out. In essence did the base have sufficient food and fuel for another year? In the event of relief by helicopter from the Protector (if she could lie off Adelaide) the five due to go out would be replaced by Henry Wyattt, a diesel mechanic and two others not specified. Should the helicopter not manage

this we should sledge up to base W during the winter for relief from there next year. But the Biscoe would try again later.

With that Sandy and I with time on our hands went off ski-ing and did altogether about 3000' of descent practising the 'Arlberg Crouch' described in a book on skiing and reckoning that we reached 41 mph over a measured course.

But as if to dispel boredom, the St Martin icebreaker crashed her way into the Bay to relieve the Argentinian base on the Debenham islands on the 25th, and next day one of her helicopters paid us a courtesy call, time for quick drink and they were off again. But, before leaving the pilot said they would be back in the evening, and would one of us like a quick trip back to the San Martin? What an offer! We tossed for the privilege and (according to my diary) I won, but I suspect Percy said 'You go' because I was keen to see from the air the glaciers back of Stonington. It was a fateful trip interesting but tragic. We flew a bit inland and up the Northeast glacier giving a birds eye view of the areas to avoid and sight of the impressive escarpment ice falls at the head of it right down to the latitude of Cape Calmette and inland. This was all over within an hour or so as we landed on the San Martin and the helicopter flew on the half mile to their base to drop some and return with others. Meantime I went down to meet Lieut. Peter Miller who was on board, off the Protector, as an ice observer. While talking, a commotion broke out. The helicopter returning from the base had crashed into the sea about a half mile from ship. There was some few minutes delay in lowering a life boat. The chopper sank leaving four swimming. It took 6 minutes for the landing craft to reach the scene and pick them out of the water. One of them was Captain Muriel with a broken leg; another was Rene the glaciologist, and the two pilots. The passengers (maybe 6) inside the main cabin were missing, Otto who visited us in September and some others. Our outgoing mail from base was still aboard. All evening the motorboats scoured the vicinity with no success. I was given a bunk in a cabin with two American observers. There was no talk of flying me back to Horseshoe in their second Sikorski under these sorry circumstances.

Friday 28th Feb.

I was not able to get ashore to see the base. I had some interesting talk with the Americans who have a well-equipped 'met' establishment on board and plot their own synoptic charts. The Admiral, who is on board (name not noted) asked about anchoring facilities at Horseshoe Island. They held a memorial service as we left to steam out into Marguerite Bay. The ship has magnificent ice-breaking power as we pushed through quite a stretch of pack. About 10 miles off Horseshoe she shut off engines for the night. Yesterday we invited the Admiral to pay a visit to our base, which he then accepted, but this morning he excused himself saying that he had an important radio schedule to keep. On this flight we were clad in immersion suits and Mae Wests! No chances were being taken. It was (happily) uneventful. We landed outside the back door and gave the crew a quick drink of coffee.

I never recorded and forget the reaction of those who had lost all their mail fearing that there might be no relief by FIDS they had taken this chance of getting it out on the San Martin. We were indeed getting a bit concerned about any relief. Even

on the 4th March there was muddle over shipping plans. The Shackleton with engine trouble was supposed to rendezvous with the Protector and the Biscoe at Deception to transfer certain stores. But on this date the Shackleton reported serious engine trouble and began limping back towards Stanley. The Governor discussed with skipper Johnston the Biscoe's next move suggesting that he return to Stanley to refuel and transfer cargo from Shackleton there. Johnstone replied that he had enough fuel (170 tons) to try again at Horseshoe (Y) and visit W, J and D (Hope Bay) bases on return. There was no agreement except to plan things again tomorrow when the Protector would have reached Deception. I noted that there would be no further dogs from Hope Bay (D) if this policy was adopted, but more chance of relief. Hoping for the best I took Frankie for a run to Lystad Bay. What a dog and what a growl of approval! He could not see a problem we had plenty of seal.

Johnstone got his way. The Biscoe was off the southern end of Adelaide next evening. I climbed up Gendarme with Percy for an ice observation taking Wol who loved the run. I then gave all the others a short run and rewrote letters much of the night.

The Biscoe arrived 3.30 pm on the 7th March. For 48 hours there was little rest and much hectic work, offloading stores, coal etc then she was up to Blaiklock Island taking John Rothera and two others, back to collect us, seals and dogs and deposit us at Stonington by 11.00 am on the 8th. Skipper Johnston was a real ice skipper, took chances but delivered.

Saturday 8th March 1958

Reached Stonington 11.00 am. Open water. Wind 30 knots. Mo/boat party ashore early pm. Very depressed at condition of the old British hut, ice hard and black up to two feet thick, the chairs and tables all encased solidly. Decided on picking it out. Amazing amount of snow around the hut up to the roof on the southern side. All Fids ashore after supper. I had none but an hour of sleep instead. Seals cache (34) on the beach. All Fids off the boat working with a will at ice clearing. Henry and I had a walk around the island deciding on places for string stores. All food may go in the store hut but seals stay on beach - get them on boards later. Immediate precious articles in the little dry battery hut. American huts in poor shape- roof covering bad timber quite good. Good room at W end. Spoke with Captain about condition of hut. He agreed our way of thinking that if E enlarged next year to 12 men with a full 'met' program a new hut is indicated. Therefore the program now to fix up only rooms for our immediate requirements. He will put up a depot of 12 pemmican and 6 rations on Pyrox Island if weather remains good. Excellent. A full day tomorrow. Must sleep.

9th March.

A lot of good work done today. All stores landed - strenuous work. Tried to get order into the positioning of various piles of stores. Party remained working on the hut and the living room is coming on. Pete Forster and Percy installed the generator on top of ice in the genny room, causing some criticism. Dinner was served in the

Ward Room with drinks on Henry. Had interesting talk with the Captain (Johnston) at table.

As far as I recall there were no high jinks this night. Henry, Nigel and Bryn were into their second year and knew what to expect. Pete Forster and Keith Hoskins were new but quite unphased by the iced up hut. The cosiness of the livingroom/dormitory described by Kevin Walton in *Two Years in the Antarctic* was not immediately apparent but we would work on it. In the meantime tents were pitched on the snow surface almost level with the roof.

STONINGTON

Stonington was a low rocky island but you would not appreciate the fact at this time, nor when it was discovered by Finn Ronne and selected for a base for the American East Base in 1943, because it was partly over-ridden by a glacier that was called the Northeast glacier from the direction of its descent from the plateau 6,000 feet above, and about ten miles inland. It was named after Stonington, Connecticut, the home of the American whaling business. Some 200 yards north of the island the glacier calved icebergs from an active front some 200 feet high, an impressive cliff which Pete Forster and I later investigated for intriguing photographs of ice formations; but held in check by the island, a snow ramp gave access to the glacier affording a sledge route to the plateau, or over to the east coast. Just south of the ramp the glacier broke off in a cliff to Back Bay. This cliff was named McLeary's Leap after this American's most fortunate survival when he walked backwards with an aerial stay wire and fell over a hundred feet into water. Had it been sea-ice he would have been killed.

The geography of this area is appreciated from a trimetrogon oblique that I ordered from BAS and attach. It is taken from perhaps 20,000 feet directly over the Northeast glacier looking south down the coast and inland. Stonington island is seen just clear of the active crevassed belt with Neny Island a mile offshore, Roman Four promontory in the centre, Neny Fjord behind and Neny glacier pushing out its crevassed snout from Neny Trough in the left middle of the picture. The Neny Trough and the country to the south in the top middle was our general area to explore and fill in the survey gaps, because only the coastlines had been surveyed. We are looking at 300 miles or so to the far horizon across an icy waste of peaks, cols, interconnecting glaciers, all virgin and unexplored.

In 1961 I was given the biography of Sir Hubert Wilkins, written by John Grierson, by Lord and Lady Howick, whom you may recall me describing when we climbed Table Mountain and hungry though I was, invited to have one grape for lunch. I read this book again to remind me of his remarkable courage as an explorer, initially with Steffanson in the Arctic then flying across the polar sea from Alaska to Spitsbergen. He then turned to the Antarctic and saw the opportunities for aerial exploration on Shackleton's last expedition. In 1928 he took two Lockheed aircraft to Deception Island. There was little snow but by dint of much pick and shovelling they made a passable strip down slope on the tuff lava to get airborne. Flying right down over the latitude of Stonington he interpreted channels like the Neny Trough as ice-filled sea-level straits that effectively turned Grahamland into an archipelago of islands. I do wonder whether the first, Crane Channel, he called it, was the Neny Trough although the map in his book puts it in the latitude of the Biscoe Islands about 90 miles further north. His three channels, Crane, Casey and Lurabee have been preserved as names of glaciers. This misconception was put right by the BGLE ten years later when Steve Stephenson made the first coastal sledge journey south from their base on the Debenham Islands past the Wordie Ice Shelf and far down the King George VI Sound. In May 1940 he gave a talk to

the RGS detailing their exploration and re-establishing all this area as part of one continent.

In 1940 with air support, Finn Ronne and Carl Eklund, sledged right down the Sound to the nunatak at its southern end, later named Eklund Island. On their return the radio failed so they could not transmit a position and anyhow, one aircraft was lost in a crevasse, so relief was not possible. The sea ice was broken up so perforce they made a cross-country route overland to the Neny trough and base at Stonington. I wrote to Finn Ronne and got an idea of the route he had found from the Wordie Ice Shelf. It was a classic journey.

Then in March 1946 the British 'Operation Tabarin' established a base here just 100 yards or so from the abandoned American huts. Kevin Walton's book *Two Years in the Antarctic* gives a popular account of life on base and the journeys undertaken. As we moved into the frozen-up hut they had built, and had all the reports of their journeys, they were all very real figures to us, Bingham with his direct connection with Gino Watkins in Greenland and the BGLE expedition, Dougie Mason the Surveyor with Freeman and later on Bunny Fuchs and Ray Adie who repeated a long journey down the Sound and were very lucky on their return to retrieve a depot left at the entrance to the Sound, which had in the meantime calved off the edge and was perched on an iceberg, but just within the 12' reach of a Nansen sledge.

How the climate varies in cycles, or did then! (Now it seems to be warming continuously). Photos of the hut being built in March 1946 show a snowfree beach, the hut being built on rock. We arrive 12 years later to a scene of snow and ice to the level of the roof and no beach at all.

Finne Ronne returned in 1947 with his own expedition and two aircraft and found to his dismay the British in occupation, the American huts in a state of disrepair, the British claiming sovereign rights to this sector, which America did not recognise, so it was altogether an unhappy relationship not helped one bit by Finne Ronne's irascible character. And he had brought his wife Edith and the wife of one of his pilots. In those days you were to try to close your mind to the dream of fair women, or at least just dream of them, but to have brought two women in the flesh to live among twenty or so explorer types is to test emotion. While relations were strained by all accounts, the good sense of Piers Butler, leader in 1947, persuaded Finne Ronne to co-operate as they had long range aircraft and the British had good dogs and tested sledging equipment. So a very good journey down the east coast with air support was done (a survey which I examined in some detail at the DOS before leaving) which, supplementing those on the west coast, gave coastlines with a few gaps down both sides of Grahamland.

When 'Bunny' Fuchs had been in charge for two years in 1949 the ship failed to break through into the bay so he and his nine colleagues had to stay on a third year. The UK press made much of it in a headline THE LOST ELEVEN. The late David Jones, an aircraft mechanic but with no aircraft to maintain, since Ice Cold Katy crashed, is reported to have firmly denied that they were ever 'lost'. They knew

where they were and made the best use of the additional time in further exploring. One thing accomplished in this last winter which had a bearing on events in our winter, was the study done on emperor penguins on the Dion islands by Bernard Stonehouse. In his autobiography *A Time to Speak*, Sir Vivian Fuchs describes this year in a chapter headed *The Lost Eleven*. He and four others left Stonington to set up a camp on these islands on the 1st June. They had some bad ice but got away with it without a problem except that they had wanted eggs at a very early stage of incubation (following on work done by Edward Wilson in 1911 described by Cherry Garrard in *The Worst Journey in the World*). But when they got there they found most of the mothers already nursing downy chicks. Described later herein the party from Horseshoe Island left on the 27th May on apparently firm ice, but a storm blew up that night and they were never found again. Their objective was to get some eggs at a suitable early stage for Bernard Stonehouse to further this biological research. In his book *Animals of the Antarctic*, Bernard describes the incredible stoicism of the male Emperor who takes over the incubation of the egg from the female when it is laid in late May and maintains a motionless stance with no food supply through winter gales and temperatures down to -50F for about 2 months, awaiting the return of the female from her foraging ocean absence to take over and raise the chick. What amazing circumstances that compel this bird to lay in the late autumn! The much smaller Adelie can comfortably start laying in late Spring.

Then the base was closed²⁴ and stayed closed for eight years until our arrival, snow drifted up and melted at times. Water seeped in and froze and the level of ice slowly accumulated to around two feet. Whether there were any visitors from Argentinians who had a base on the Debenham Islands, I do not know, but think not, as generally furniture just lay embedded in ice but not vandalised.

The Biscoe left us on the morning of the 12 March 1958 with three blasts on the hooter. Captain Johnson had been good and dropped a depot I asked for on Pyrox Island at the head of Neny Fjord. He told me too there was a whaler somewhere under the snow on the beach in case we had open water, but we never did see it. The six of us waved her off. Four of us were second year Fids - Henry Wyatt the doctor, Nigel Proctor (geologist) who had been with me at Blaiklock and Horseshoe, Bryn Roberts (wireless operator) also from Horseshoe and myself. Peter Forster (surveyor) and Keith Hoskins (geologist) were new and anxious to contribute all they could.

The day after, we had thaw temperature and water started to trickle back in to the partly cleared living room floor. With driving wet snow all day water has streamed in from outside. We have taken out bucket after bucket but it is a losing

²⁴When he received a message from the Governor that the base would be closed due to difficult access by ships he recorded in his journal (see page 199 of his autobiography) "Somehow it seems that all our efforts here are to bear no future fruit....in a concern of this nature it seems like the dying of a family through failure to produce a new generation to carry on the good work. I am desolate."

battle. It's easy to understand now how the hut comes to be iced up. Henry and I got soaked feeding the dogs, arranging the oil drums, and fetching in timber from the hangar for use in the Nissen hut. Have decided to dig a trench all round the hut to drain away water during thaw spells. We sorted the dogs into teams. One really wonders whether the hut will ever be dry. We are taking turns at cooking using the 2-burner stove and the Esse cooker. The sitting room fire is going well. The following rooms still to be cleared of ice - kitchen, little room next to kitchen, living room, base office, workshop, radio room, dark room, laboratory and engine room. In fact only the Nissen hut will be left. Think things will be fixed up pretty well in three weeks time.

We slept in tents outside these first nights and just as well, as next morning there was about 3 inches of water over the sitting room floor. After breakfast I got everyone on digging a trench from the living room window to the Nissen hut. When this was done by lunch time, we could pour water directly out of the living room window. Keith Hoskins was noteworthy for his stirring efforts at digging the trench. Besides this we were busy getting outside stores under cover, unpacking sou'westers for these rare wet conditions, sealing when a weddel was approachable on the skirting of ice, and trying to get a routine of cook duties and other tasks. I caught up with my personal mail reading late at night in the tent, the first opportunity since the ship had come in to relieve us.

16th March 1958. An amazing accumulation of 1'6' of snow last night covers all in a white mantle. Pete cooked breakfast. All of us (except him) brought 15 sacks of coal into the bathroom. It was snowing hard, deep and trying to walk in. Thank heavens we got all boxes into the Nissen. Pete, in between meals, continued to lash up electric lighting²⁵. Keith useful in the construction of bunks etc. In the living room. I knocked up a bunk in the SW corner²⁶. Nigel made an excellent swing door which separates the warm passage opposite the 'quiet room' from the cold passage connecting the Nissen hut. I made a table in the base office and got a few things up on shelves. Hope we don't have much more snow. Bryn sleeping in a tent tonight but the rest of us are indoors. Henry has made a bunk that looks like a sledge but is guaranteed to float (he says) when the water level rises. Three fires are kept alight, the Esse the living room and the passage stove. With two valor stoves a cooker and tilley lamps all going the paraffin consumption is very high at present. I made a round of stores dumps noting where everything is. Tonight the temperature dropped down to +6F. The hut is snowed up to the roof. Work has gone very well though. Pete F. is awfully useful; Nigel practical; Keith unflagging energy and Henry dreamy but invaluable. The floor of the living room will always be wet but we are making things comfortable.

²⁵His first training had been electrical before taking up surveying with FIDS

²⁶Which had been Bingham's corner 12 years before according to Kevin Walton's diagram in his book.

Although we were essentially a sledging base to pursue survey and geology and Henry had a program of research to do in human physiology in cold climate and dog feed trials, the opportunity was taken by him to repair the outside Stephenson's screen and take met readings, while we were in base, at 09:00 and 21:00 hours each day. Maximum, minimum, ordinary and wet bulb thermometers were installed and a barometer in the hut. He started taking readings on the 21st March. Bryn had the radio working about then also with a successful contact to Base Y at Horseshoe so met readings could thereafter be relayed on and collated at Port Stanley.

Our morale must have been pretty good because just as we were beginning to appreciate the relative warmth of the hut by day when the stoves were lit, Henry started his first cold di-uresis experiment the next morning with the tacit assumption that the five of us were all willing guinea pigs. It was not the best way to start a day because it meant bedclothes off no covers, hut temperature close to freezing or below, empty bladders to start then urinate into a measuring cylinder every half hour and drink a measured amount of water every hour. As the body temperature dropped and shivering commenced the volume of urine would increase. Various skin temperature probes were fitted. He collected all the data with apologetic enthusiasm and joked that it would help us all acclimatise to the sledging cold. We endured this for 3 hours when, with relief, string vests, woollen long johns, shirts and jerseys could be pulled on. This was the first of several with results that he was to write up later at the Medical Research Council. Besides this one, as if to test our threshold of pain, were measurements to test what he called the 'hunting' phenomenon. Your index finger, with a temperature probe attached, was held in a thermos of iced water at very close to freezing for up to half an hour. It created a level of discomfort one had to get used to working outside, taking gloves off to do delicate finger work, but the purpose was not to measure tolerance but the dilation of the capillary blood vessels trying to maintain circulation, or so I understood.

Lying there inactive except for banter around fellow guinea pigs for 3 hours I planned the things to be done with urgency so that we could get out sledging on the first trip up the Northeast glacier, viz 3 sledges to assemble in good shape with sledgometer wheels, traces, harnesses and spares, sledge bags to be made, uncrate a new tent and check three for pegs, brushes, pitons and ground sheet, make up 3 pots and pans boxes checking primuses etc., carry out short training runs with the teams around the island, each to make 2 prussik slings, one waist sling, fit 2 karabiners and be familiar with crevasse rescue methods, sledge repair kits to include palm twine, codline, rings, riem, screws, balloon cord, screwdriver and pliers, each man to make soft bindings for skis, fit crampons, fit compasses to sledges, make glacier flags of tube lathes 8 ft long with red bunting flag 1 square metre.

This was a starter list besides the hut repair and stove repair jobs and day to day necessities that took priority. As the hut roof was level with the outside snow surface, when the wind blew drift, it filled the volume of space dug from outside the main door up 7 feet or so of steps. So, until some form of trap door was made,

all this drifted snow had to be first shovelled into the hut corridor to get out at all. Shovelling snow for trenches, for buried stores took a large part of everyone's time particularly Bryn and Keith who were such good volunteers. Nigel, clever man, got the original Esse stove cleaned out and working well to enable me to make the first bake of bread on the 23rd. I never recorded its quality but for sure a working oven and a good supply of fuel is at the very heart of a happy base. I can imagine nothing worse for base morale than the modern all-insulated hut with individual cubicles for each man. Here, we all mucked in working, laughing and jesting although for sure not all were as keen as I was to cut short base life and get going on the sledging. Pete Forster shared my feelings for the restored hut, as we read from his journal taken by Bunny Fuchs in 'Of Ice and Men' page 191 ... *for me the hut possesses a fascination far above any other well-groomed base huts; the fact that we have pulled her through from impending decay and nursed her back to warmth had rooted an affection within us which could never have occurred on arrival at an inhabited dwelling. Apart from this attraction, the shadows of history still linger over Stonington Island - Bingham, Fuchs, Ronne and the two ladies have left their impression on the place.*

The advancing autumn and shortening days concerned me, for I was aiming at support to get Henry and myself with the Admirals team to the plateau for us to find a plateau route into the Neny trough and perhaps reach Mobiloil Inlet. For the main summer journey we had to have a known route overland back from the Neny Trough. The others with two sledges and dog teams could do useful geology and survey between the Northeast and Square Bay, an area which needed filling in. Then, back for midwinter and dog feed trials for a month, to be followed by depot laying runs down to the Wordie Ice Shelf and support journey for Nigel's main geology work south of the Wordie. Then the main summer survey journey from south of the Wordie Ice Shelf back up through inland country. Unlike the previous occupation here, we had no aircraft for support. At times the base would be unoccupied. We had to lay depots in advance or have a support party help the main party for part of the distance. Each sledging unit had to be self sufficient and competent because communications were notoriously unreliable with the army '68 or 119 sets in mountainous country.

25th March.

Cold and clear day very calm later with beautiful lights. Henry's birthday. He has fitted an 'Angus Mk3, handbrake to our sledge which looks good indeed. I spliced six side traces. Must make another three and a new centre trace. May be able finish that tomorrow then take some of the 'boys' out for a run. Sea-ice getting in very good shape with coverage over all visible areas. Temp this morning +3F - remarkably cold for March! I took two scenes with the cine before breakfast, Henry in his blue duvet and the drifted up hut. Nigel on cook. He and Bryn fed the dogs, Peter and Keith worked in the genny room. Pete and I had a 10-minute star identification refresher tonight. We are going to do a practice astro-fix tomorrow evening. (Must get out the new theodolite and legs). Bryn spending a lot of time trying to get the radio in better order. Plan that the recce party leave 10th April- Bryn and Pete, Keith and I with the Spartans and Admirals. Henry doing grand work

with sledges, repairs, fixing up his skis and his human physiology every morning. He is a wonderful chap.

These busy preparation days continued apace, splicing traces, sewing harnesses (adopting Angus Erskine's Greenland design which held a dog securely when it fell into a crevasse and did not chafe under the legs so much), lashing new sledges, making soft bindings for skis out of leather, giving the dogs and the new drivers practise in sledge work on the new ice which was already deemed secure enough out to Neny Island, and for Pete, getting practice in star observing which he did on the 28th evening just outside the door. The Nissen hut was too cold for finger work so we lashed sledges in the livingroom/sleeping room on the dining table in a cosier atmosphere. I recorded on cine a completed Nansen sledge emerging through the window in a cloud of condensed air being hoisted vertically to clear the snow. A sledge I had been asked to test was a product by a new firm Skimaster, possibly less expensive than the traditional Norwegian Nansens. I should never have risked it on the autumn plateau journey as it could have had very serious consequence so frequent were repairs necessary.

I had a radio schedule with John Paisley on the 26th when he mentioned his preparation for two sledges and three men to visit the Dion Islands and further the work on Emperors started by Bernard Stonehouse. In my diary I commented "Don't much like the sound of this as it might interfere with our depot-laying program". I was never too anxious about the safety aspect as they had been visited before from Stonington and before midwinter too, but I was hoping for two extra dog teams to help with the depot runs to the Wordie Ice Shelf. I had worked out that to supply 6 men with 3 dog teams for 42 days would require 4 sledge trips each taking 1150 pounds load the 130 mile round trip. And I was hoping that the Horseshoe teams would do two of these loads. It worked out tragically differently.

Preparations for our glacier recce trip continued apace interrupted however by a hot fohn fumigator gale raising thaw temperatures and starting a flood over the floor boards on the 31st. We bailed furiously until 01:40 in the morning keeping pace with the sump level. Nun gave birth to 11 pups which sadly had to be disposed as we had no capacity to breed dogs this year. It blew a gale for four days and took out the young ice.

The time was profitably spent preparing and practicing various crevasse rescue methods. These are detailed here for interest. Jumars had not yet been invented. The prussik knot was taught me by John Ball when I was a boy and we each carried two prussik knot slings for self rescue and each sledge carried two 100ft climbing ropes. The illustrations are Henry's.

(Insert here Crevasse Rescue Methods)

We found that the recent thaw temperatures had frozen in supplies in the emergency food store cache. Much was under 6" of ice. In relays Henry, Bryn, Keith and I chipped away and hauled tins and boxes out. Also the generator packed it in. Pete F worked on it the day before I had planned to leave on the recce, but

without success. I was not allowing it to delay our get away on the 10th April morning although also windy and blowing 35 knots drift was snaking down the ramp of the glacier as Keith and I with the Admirals pulled up the slope followed by Bryn and Pete with the Spartans. We followed the compass course reported by Reg Freeman several years before the first leg heading towards Walton Peak. Due to rising wind and heavy drift we only did a mile and had good practice erecting the tents in a gale. Wind and drift stopped us early next day after 8 miles and on the third and last day out on this recce we covered 5 miles to a small Argentinian refuge anchored down to blue ice at the foot of Sodabread Slope. We had crossed a belt of large sastrugi which overturned the sledge twice and also several crevasses in one of which a dog fell through but was hauled out getting the team on the far side and the sledge on the near side. It took time to manoeuvre them along the broken bridge to a narrower place to cross. This little refuge was 7 by 7 ft and anchored with hawser wires to withstand the fiercest winds that are prevalent here. Hence there was no snow to pitch the tent on. We used pitons for the guys in blue ice

This was all I wished to achieve for now. We returned and got into a very crevassed area between turn points E and F luckily having light loads as two were very wide. One collapsed as I was holding on the handle bars and I was lucky. I noted "One can never regard any patch of glacier as safe". At base Henry and Nigel were well but tired, having taken out the bigend and camshaft and found that they had 'gone'. Without a sprocket extractor we were back to paraffin lamps and candles; but Nigel showing initiative again found one next day when rooting about in the old American hut. We agreed to let its repair wait on the return of the support party that would help Henry and I get up to the plateau. Pete offered to stay behind alone to fix it but I declined to let him.

An Autumn Plateau Journey

Or let autumn fall on me

Where afield I linger,
Silencing the bird on tree,
Biting the blue finger.
White as meal the frosty field –
Warm the fireside haven –
Not to autumn will I yield,
Not to winter even!

(From RLS The Vagabond)

The purpose of this was to find a route into the Neny Trough off the plateau to serve our return in late summer; but at the same time to progress the survey southwards from the crossing over to Bill's Gulch which D.P. Mason had shown on the mapping. It was pretty late in the 'season' for such a trip in fact most of it was in the three months of winter and above 4,000 feet but cold conditions suited Henry's physiological tests, so he said before we started anyway. We were out from the 18th April until the 6th June, 50 days, and only covered 150 miles in all, an average of a miserable 3 miles per day due to few days being possible for sledging due to blizzard and drift while temperatures often below minus 30F made for very high friction. Mind you we had to relay much of it which means three times the distance for that 'made good'. The previous autumn plateau journey led by John Tonkin some 11 years before with Duggie Mason as surveyor and recounted by Kevin Walton in his book²⁷, left base on March 2nd and were back on April 13th. Even so, they only had 19 days possible for travel covering 200 miles. I asked Henry to let me have copy of his diary to compare against my own for comments. On occasions I give his, with his permission, and commend him for his mostly buoyant thoughts.

The others with the Churchmen and Spartans dog teams supported us up the Northeast glacier to the Amphitheatre and then went off to survey and geology towards Square Bay. It took 4 days to reach the Argy refuge in spite of the flagged route, slow going with twelve inches of soft snow and delayed by a 70 knot gale for two days and nights. I was also infected with something that caused a swollen lip as I read in Henry's medically observant diary as I had forgotten that.

23rd April.

Spent all day on Sodabread Slope, a misty day with soft snow falling and v. Poor light. From camp all six of us took up the remaining boxes to near the top of Sodabread where we had laid yesterday's depot. Four of us then did a recce finding the next 150 yards very crevassed and exposed blue ice. Two were nasty and had

²⁷Two Years in the Antarctic pp 112 to 127

to be jumped across. None of the bridges were safe. Beyond this the ground seemed quite good but we could not see up to the Amphitheatre. We spent the day moving 12 boxes and 8 gallons of fuel across the bad part working in pairs on ropes. There is a wide well bridged crevasse near the top of the slope but the narrow badly bridged crevasses beyond are very troublesome.

It blew hard in the night²⁸ but calmed at 11.00 in the morning when Henry, Pete and I prospected a better route up Sodabread, which, although steeper at about 24 degrees, avoided the nasty blue-ice crevassed area. We flagged it and came back for a late lunch, then taking the Admirals and with Peter and Bryn's help moved some of the stuff up to Amphitheatre Camp. We used 8 dogs as I left off Babe who was on heat causing great trouble with the belligerent males. Henry went ahead on a 50' rope probing. He described this in his diary as offering himself as 'crevasse fodder' but commendably never shirked it and, remarkably, we never had to practice our techniques to pull him out. Returning from the depot I lost control of the sledge on a high sastrugi when my braking foot slipped off, the sledge gathered speed on the oblique downslope overturning scattering insecure items and losing a wooden picket which Henry and Bryn searched for but could not find. I attached three rope brakes but on the hard sastrugi it was not enough so Buster, Alpha and Zeta and Monty were let off to romp down to camp where, happily, they arrived safely before us. Thinking of the pioneers forging a route up here ten years earlier I could only agree it was amazing as each rise in elevation brought to view icefalls, avalanche areas and every shade of threatening blue to black in the chasms of open crevasses. Henry described a tottering mass of ice pinnacles about 1000' high to the right of 'Sodomy' slope with rock a deep rusty red showing through and to the left another icefall at the foot of Blow-me-down Bluff, a rock rampart 2000 to 3000 ft high. "Yesterday told us how it got its name".

Next day, the 25th April and our 8th day out, was the last for the supporting teams. There were drift plumes coming over the plateau edge but calm where we were and we got away in quite good time with Nigel helping us with the Admirals and Pete and Bryn with the Spartans it was a terrific pull to Amphitheatre camp, reached at 1.00 pm where we had a biscuit and chocolate and last thanks and goodbyes for their help. The support party disappeared speedily down the slope, Henry and I had supper then, fortified, did a recce on ski the steep traverse to the plateau edge. We had sledged up 1500' and recce'd up another 1000'. It was getting dark coming to camp but a clear sky so I observed an azimuth. It would have been position too but no time signal was available.

26th April.

Frustrating day with several minor mishaps. The sledge hammer handle broke and we had to repair that on the spot. (Without good picketing fights would be constant). Then sledged 11 boxes to the foot of the difficult traverse incline. In

²⁸Henry estimated 80 knots coming in gusts which 'sounded like an approaching express train'. We stayed dressed in windproofs and tied ourselves to a central rigging line.

turning the sledge around the wheel attachment broke. We started to manpack the 11 boxes up the 300 ft rise and while away for 20 minutes Frankie and Caesar fought so we rushed down to find Caesar rather the worse for several bites (one luckily in the eye lid with no damage to the eye). Johnny had bitten through his sledge lashing. I was annoyed with the dogs! We manpacked all 11 boxes up to a fairly level site half way out of the Amphitheatre - strenuous work - in visibility of only 100 yards. Returned to camp and set about repairs. I made a new sledge bag out of Henry's sleeping bag cover (a crampon accident had torn off the top of the original sledge bag) while Henry repaired the wheel attachment with wire off a Nutrican box. Henry noted that after a week on sledging rations and the exercise we feel hungry and fat thickness measurements showed lost weight. It did not require callipers to tell me that we were getting fitter!

We man-packed most of the next day getting to about 4000 ft and above the cloud left hanging in the lower valley. Used the dogs to get the last 13 boxes to the foot of the final steep that will gain the plateau. It was to be a clear night, a rare event, so we prepared to get a star fix. I observed 8 stars on position lines while Henry booked from within the tent getting meantime frequent time checks from WWV on the '68 set²⁹. This was all to the good because next day it reverted to normal cloud, the stars computed well and would help blind navigation to get off the plateau later at the right spot. We manpacked up all the boxes the last steep bit, roped and wearing crampons. Henry got through on the radio schedule and we heard that there was 10/10ths ice at Horseshoe and up to 10" thick.

29th April.

We reached the plateau with some 1200 pounds of load mostly dogfood. Henry's diary is the more informative. A cool day starting at -11F and ending at minus 8. During the afternoon mist and heavy snowfall came on taking visibility to zero. After a round of angles to take intersects we started up again in eight inches of fresh powder with loads, me as usual ahead on a rope to check for potholes and energise the dogs. Straight up for a bit, across a traverse, down a bit, then up and out to the right towards the plateau edge. On the steeper slopes the new snow had little hold and had slipped away leaving bare ice. At every opportunity the dogs would fight. Then we would lay in with the 'thumper' which they seemed to think is part of the fight anyway. Unruly bunch. Frankie clawed open a can of dogfood blocks and helped himself. (I love these observations on husky temperament with Babe on heat among six other virile dogs it was bound to be). At last camped on the plateau edge and marked our place with aluminium poles. The wind plays over their tops like flutes so we rest with a background of steady music. We now have 1170 pounds of food and gear to move forward to Beehive Hill. The frost line in the tent is rising higher each day. For this the cook (inside man) pays a penalty each morning. Before the stove is alight for cooking and before the warm air rises to melt it, strings of frost crystals hang over one's head in the apex of the tent. The

²⁹If the 8 stars were 22 in each quadrant and time checks good the position fix should be accurate to 150 metres.

slightest touch on the tent wall sends a shower of ice flakes onto one's head and down one's neck ... it's odd that this cold snap has produced another cold-diuresis; I would have thought that our blood volumes would have now adjusted all they were going to.

With calmer air that accounts for crystals in a still tent the temperatures fell towards what may have been average lows. It was -24F next day. 'My feet were cold all day and Pete's nose was nipped from time to time but he scarcely seems to notice. We are supposed to look after each other warning when the tell-tale white spots appear on face and cheeks' (a slight inference that I was ignoring his state (and my own) but my diary suggests that I was aware of his). At midday we put up the tent for lunch and Henry got his feet 'going' again. We camped early so as to take some angles to the mountains to the south. Temp stayed at -24F a beautiful evening - cloudless sky and rare atmosphere up on this plateau, but v. cold! I did an astro sight for longitude and azimuth which computed this evening. Henry suffering from sore hands and feet. Hope they don't give much trouble. We only covered 2 miles. 5 knot wind from east. Vis 150 miles at least. Alexander land clear.

However we were just acclimatising to much colder weather as we relayed towards Beehive Hill. The temperature fell next day to -33 and -45 the day after with wind, perhaps the coldest wind chill we ever experienced.

1st May.

Did theodolite round after breakfast temp -18. Got away at 11.15 but could not manage the full load so decided on running a depot to Beehive Hill (13 miles). Left here (7a) 4 nutcrans, 1 ration box, 4 galls paraffin, 2 pack frames - 400 lbs weight. We then made good speed climbing uphill for 2 miles. Did some survey en route which were cold halts. Our route took us south of prominent Armadillo Hill where we dropped into the head of a glacier about 500'. This flows into the Neny Trough. We had some good views of the lower 'trough' and got valuable compass rays and photos. Climbing out of the glacier was slow work as the surface deteriorated with the temperature falling to -33 at 4.30 with a breeze. Henry's feet are giving trouble they have cracked and walking is painful. The dogs will be feeling it tonight especially Babe.

2nd May.

I woke late as the clock had frozen. Temp -38 with a 10 knot wind. It was misty but cleared so we got under way in the direction of Beehive Hill We could only progress in short bursts. The temp fell to -40 which with breeze made conditions biting. My eyelids tended to freeze together and nose got nipped a couple of times. It took 2 hours to cover 2.3 miles to a point where we put up depot No 3. Then we turned and retraced tracks in direction of depot 2 we had to bring forward. The surface was like sand with no glide. The milometer seized up. We put on the spare one. We got onto a better surface beneath Armadillo Hill. Recorded temp of -45 at 5.00 pm and ran into a cross wind of 15 knots getting iced up around the face but managed to keep pretty free from frost bites. (According to Henry's diary we had no lunch stop as faces were too iced up to get the biscuit in and the thermos top was frozen

on). We camped on a hard surface 4 miles short of depot 2 in a temp of -38 with a nasty wind. Getting the tent up took a long time on very hard snow. My lovely new ice axe broke teaching Monty some manners (tapping him with the shaft). Also my black plastic survey case split. We hope this weather is temporary it slows everything down and makes good survey and direction well nigh impossible.

3rd May.

Astonishing weather with wind developing to a gale and the temp staying down at -40. At 4.00 pm when I fed the dogs at -41. This combination of high wind thick drift and low temps is extremely unexpected³⁰. The tent is frosted up. Only by burning more fuel (primus) can we keep bags dry. This morning mine was iced around the top. I fed the dogs - quite impossible to face the wind at this temp. The dogs must be suffering badly indeed it is difficult to picture how tough they must be to survive this. It would not be so bad if they could get drifted over but we are on hard snow. If these conditions in May what in July? Have got just 4 days dog food with us. As soon as we get to depot 2 will feed double blocks to the boys. We have lain in our bags between meals - cold without the primus.

So it was another two days cold with strong wind; but late on the 5th in a short lull we managed to get a mile towards the depot leaving just 2.2 miles but the short move was good for the dogs and our morale. Monty was in worst condition. On the morning of the 6th the wind died to a perfect calm and temp risen to -16F. We rapidly got under way to the depot sledging over very high sastrugi. We loaded up the 250 pounds and sledged all day until dark at 5.00pm covering 14.2 miles for the day. It was great to have moved again and reached the forward depot and to see right out over the Filchener Ice with the low sun tinting the plateau summits rosy. By light it was -17 with a keen wind but good visibility. We relayed again making good about 4.5 miles and 14 for the day's sledging which with pushing and shouting the dogs made me hot and sweaty. The radio worked well enough and "we felt envy for what sounded like a grand party at Base Y (Horseshoe)". Ahead lay 30 miles of untraveled country to the edge of the Neny Trough which thick mist prevented us moving towards for two days but on the 10th a day worth all the toil and effort of the past weeks dawned. It was -20 but fine and clear with beautiful dawning lights and stars still visible. From 0830 to 1030 I observed astro for position and azimuth and a round of angles to features while Henry sketched the panorama. Then we sledged to a summit 2 miles off which promised a view, lunched, put on crampons and climbed up the hard slopes about 500 ft to the summit. To our joy there lay a narrow apparently uncrevassed glacier leading straight down to the Neny trough. We climbed to the highest point about 800 ft above and took angles, sketches and photos seeing 100 miles in all directions and, most interestingly, across Mobiloil Inlet and the country to the south of the Trough. We hacked out a rock specimen for Nigel and Keith, got back to the tethered dogs and in failing light sledged 2 miles down the new glacier dropping about 1000 ft. We camped in the near dark with stars out. I took 8 stars for position

³⁰But we had no information on plateau temperatures and winds at this time of the year to go on.

and azimuth before coming in. Henry wrote movingly "I shall never stand there again (on the summit), never see so much unmapped land, nor so much beauty. For that, all the discomfort, tedium, loneliness and separation mean nothing. All are worthwhile for a day like this."

It was not until next morning that I discovered the loss of my anorak and Henry's jersey. It had been so calm that they were not worn when we sledged down the last miles. We at once harnessed up the boys and with an empty sledge returned along the course for 2.5 miles. Henry's jersey we found but not the anorak and the weather curtailed further search with wind and drift developing. The loss of a sledging anorak was quite serious, designed as they are to keep wind and drift from getting into the garments below and entrap body-warmed air within the insulation. I spent the rest of the day computing. It took 7 hours. We heard that the ice at Y was now 18" thick. As we lay up next morning in drifting conditions I turned thoughts about this loss into action and cut up my canvas sleeping bag cover to make an anorak of sorts. Henry helped by making sleeves from the tent-repair ventile material. The end product was shapeless with no zips and tight around the arm pits but served suitably well.

We sledged a further 5 miles down this trouble-free glacier dropping 2300 ft with steep walls either side rising 3000 ft or so above to corniced ridges which splayed plumes of drift over the edge. It led us to near the col of the Neny Trough at about 3200 above sea level. The width of the trough here was about 4 miles narrowing to its high col to our west. We could go no further due to a 30 knot wind raising thick drift so camped hoping to make more progress in the afternoon.

That brief sighting of the Neny Trough East of the col (the glacier later named after me) was the last we were to see of it until the summer journey in December as a 6-day gale confined us to the tent and its immediate environs to feed the dogs and get them to break out of their snow drifts. We only had with us rations, fuel and candles for six days so immediately reduced our rations and dog feeds to half not knowing how long the blizzard would last and still hoping to do two days travel outwards to reach Mobiloil Inlet on the east coast. On the 16th, the third day here, we tried to move, made 50 yards only in drifted snow thigh deep and thick drift so that I could not see Caesar. The temperatures were milder so things got wetter especially bags and the sheepskin mats. With one fill of the primus only per day there was no chance to dry these so it became a bit of trial keeping feet warm by kicking in the bag. The dark tent we had taken in error denied even diffuse light through the 4 hours of twilight. Henry welded a theodolite bulb to the battery rheostat which was useful as candles were in short supply. I believe he was more worried than I was judging from his diary for the 17th "We're on half rations with one primus filling per day and I'm cold in my sleeping bag with all clothes on except windproofs, feet especially cold. Could this undue sensitivity be related to short rations? There seemed to be a lull about 3.00 in the afternoon so we packed up. No sooner was everything out of the tent than the wind began to howl again with clouds of drift and fresh snow. We could see less than 30 ft. Our faces plastered up with ice and eyelids sticking together. The worst conditions I have known, quite dreadful. I nearly 'lost' my fingers. So everything back into the tent quickly but

everything was drifted up and wet, absolutely bloody with no fuel to spare. The primus ran out of fuel at 4.00 in the afternoon so we had a little less than four hours of it today. The weather must improve soon. We have 8 days of half rations with an extra day of lunch biscuits and cheese and about 7 days of half fuel ration. We have plans to melt snow in polythene bags inside our sleeping bags and Monty will be the first dog eaten. Talk about critical situations with the climb back to the plateau still ahead”

His worries are understandable as we had known of other parties stuck for up to 20 days in a prolonged blizzard and of course there was no such thing as weather forecasts. Conditions straddling the Grahamland plateau between the relatively warm Bellinghausen sea and the cold Filchner Ice Shelf led to gales due to pressure variations or katabatic winds blowing down the glaciers even in clear weather. Our trial was not prolonged and we could move next day.

18th May.

Camping 2 miles from Beehive Depot. Lay awake much of last night listening to the wind. It stopped about 7.30. I got up at 08.00 and made breakfast. No burning of primus apart from cooking so my gloves and anorak are very wet. Anorak is frozen stiff and difficult to shape. There was no wind and the visibility about 200 yards. Temp -4. A wall of drift had built up a further 2'6" above the level of the tent. We got away at 10.35 and made erratic but slow and steady progress averaging a mile an hour, traveling blind with Henry in front steering on a compass course. It was essential to wear skis as one sank to the knees in soft snow otherwise. Every few yards the sledge bogged and it took a lot of effort to get it going again. we covered two miles before lunch and then the mists lifted and showed us to be at the foot of our glacier with its familiar peaks on either hand. The surface improved after another mile so for a time I was able to drive the dogs without Henry leading. We reached the site of our camp 13 at about 4.00pm and pushed on up the steep ramp at the top of the glacier in falling light. The surface up the last part was excellent and wind eroded. Camped when the shoulder of Beehive loomed up. Pleased that the weather had allowed us this break to get out of hunger camp in the Trough we celebrated with a bellyful of food in excess of the normal MRC ration for one day. (The dogs were fed two blocks each also). Coming up the glacier we watched some beautiful drift plumes coming off the peak tops lit up in the sunshine. It looked as if the mountains were on fire. I suggest naming the peaks 'Flaming Peaks. We had covered 6.6 miles and risen 2000 feet.

We had two pretty good days following. We reached the Beehive depot on course next morning. It looked impressive against the rising sun and red sky behind it with low drift sweeping across the rough sastrugi surface. We took from it one 10-day box of rations for us and another nutrican box and all the paraffin then sledged southwards 6 miles to Point 36. Here the plateau falls away into Robillard Glacier. The plan was to work in this area for up to 4 days and then get back to Depot 1 on the way back to base. The 20th may dawned fine at -1F and a 10 knot breeze. We were out in the dark getting on crampons and roping up and away as the light improved at 10.00 am. We got to the top of the hill within an hour in a rising wind to gale force which made it impossible to bare hands for any survey but in the ten

minutes appreciating the view we got a good idea of the surrounding country. We overlooked Robillard Glacier and I saw the relation of this to the Neny Trough. We were way above all the peaks of the Joerg Peninsula looking clearly to Three Slice nunatak and the Rock Pile Peaks. We picked up two rock specimens and came down hurriedly getting into thick drift which obscured the tent from view. Luckily we hit the camp alright. In the evening I observed again for azimuth as the wind had blown down the azimuth pole³¹. It was a poor sight due to wind with fine drift blowing. I got a theodolite next morning but the wind was too strong to climb P36 again and do anything useful so we decided to pack up and try to get back to base by the end of the month. We had pretty much achieved what we wanted but were in for a struggle to get off the plateau as we were in cloud or drift most of the time. After six days in cloud moving a few miles 'blind' towards the depot we were in for a six-day storm and short on supplies. On the 26th we did 2.1 miles with the temperature dropping to -17 with a 20 knot wind causing frost-bitten faces. The dog harnesses were frozen hard very difficult to bend and get off (having had mild weather recently) so we took them in to dry off in the top of the tent. By the same token our sheepskins had frozen. I gave mine up and used the tent cover or the cardboard cover of a nutrican tin but Henry managed to dry his somewhat in the tent apex. We were just 7 mile from the depot. It would be six days before we reached it. The wind blew continuously at gale force, as best we could judge, and the temperatures ranged between -12 and -18F. As the lie-up days passed we cut down strictly on paraffin, no burning for warmth just for a kettle and pemmican so in consequence our bags got iced around the face and we had a job keeping warm enough, partly due also to short rations.

On the 27th May - the day the Dion Party left Horseshoe - it was appalling weather with us, a moderate gale from the East and visibility 10 yards at most. But it must have been calm at Horseshoe for them to leave, the storm getting them that night. A pity that we could not get through on the radio which we tried, not knowing that they were leaving, just for news. Maybe had they known of our gale they might have delayed departure. We debated which was preferable whether half rations or one fill of primus per day.

Henry opted for more food but I preferred the extra warmth to dry my bag. I fed the dogs and apparently nearly had frost bitten right toes on the 29th. Poor dogs were really suffering with great balls of ice on their coats. On the 30th I decided we should cut down their one block of nutrican to half a day. We made no attempt to contact Paddy on the schedule since we could not use the primus to warm the battery. It was -17F and a full gale. We had just two pints of paraffin left. On the 31st the wind was furious in the pm but at last died to a breeze after dark. It was good to hear the dogs stirring and voicing their views outside. During a calmer spell before dark we tried to move getting the tent down and feeling weak after such a lie up, but judged it unwise in the failing light and getting easily chilled.

³¹The computed true azimuth of a pole illuminated at night during star obs would be used in daylight to refer all theodolite directions to true and not magnetic.

Henry's diary - Sunday 1st June 1958.

Pete was out near midnight in full moonlight and calm. I was all for pushing on but we decided to wait until first light. After the usual worried and sleepless night we ate breakfast to the usual roaring and rattling of a 25 knot wind. We were depressed indeed but determined to look out at 10.00 (first light) when lo and behold flat calm and excellent visibility. Temperature -5F. We broke camp as quickly as we could easily winded and tired but were away shortly after 11.00. Pete was right in his estimate of position. Babe was limping badly though the wound under her axilla seemed to be healing so we took off her harness and let her pull as she could from her collar. Pete developed stomach cramps and shortness of breath through shouting at the dogs so I drove for a while. To my amazement Caesar in the lead responded immediately to a different voice once some confusion over calls was sorted out. From a point 7c marked by a flag the bearing to the depot took us across incredibly rough sastrugi, the cut troughs being 4 feet below the ridges which were deeply undercut. The depot stood out well on an ablated hard surface. Monty who had been off slinking behind was caught here. (Perhaps he had read our intentions back in 'hunger' camp!) Progressing over these rough sastrugi the foot brake caught a hard lip of sastrugi and snapped off. The sledge careened on and had to be overturned to stop. The milometer wheel also came off. We camped and recovered with full supper and 2 blocks each to the dogs while Henry worked to repair the footbrake, drilling holes in the shortened plank with a blanket pin heated in the primus and joining the broken ends with wire from a ration box. I recorded our relief in getting out of the last camp "probably our most uncomfortable six days ever and a valuable insight into the heroic era of Scott when one gallon of paraffin was made to last three men ten days".

More seriously for its implications to others "We could now see over the plateau edge to the sea-ice of the west coast. Something odd had happened. Enormous black areas showed where snow covered ice should have been. Either large areas of ice had blown out in the gale or else the ice had been blown quite clear of snow". We would not know for two days. We were also overdue at base but could not get though on the radio.

Next day visibility was just a few yards. We lashed on the repaired brake but when I tried it, it snapped. In the afternoon we made another using one of my skis and blanket pins for wire which all took several hours. It was snowing and accumulating, a very good thing as it turned out for the descent.

3rd June.

Had to stay put owing to thick mist and poor visibility. After breakfast we lashed on the improvised brake, an extremely delicate job at -24F with a breeze. We put on five lashings which took an hour and a half as we had to come into the tent after each one to get our fingers back again. We lay low in the p.m. to conserve the primus light. Very serious alarm on schedule with 'Y' that sea-ice went out between the 28th and 29th May and that the Dion island party consisting (so far

gathered) of John Paisley and Stan Black³² left Base Y on the 27th since when no word has been heard though schedules were arranged every odd day and they took a 119set. The picture is bad though they may well be OK. We shall probably have to chase up to Y on getting in from this trip. I thought the sea-ice looked broken up two days ago when we saw right across the Bay. Do hope they are safe enough and just having radio trouble. We got through alright because Henry went to great trouble drying out the set. Made a new trace for Buster who chewed his last night. Promise of clearing sky tonight. V Cold. Temperature dropped to -30 F at 1600.

4th June.

Out of the tent at 09.40 in moonlight temp -30F a little misty but good vis. It took until 11.00 before we were ready. Sledged 50 yards and the footbrake broke again! The wood must be completely rotten. We crossed the crevasse at the beginning of the steep descent alright. It had changed its appearance and was not well bridged. (Henry crossed in front on a double rope here). The heavy fall of snow and low temperature made the surface so slow we were able to sledge straight down the steepest parts with only one rope brake on. The level traverse before the Amphitheatre was awfully slow the sledge overturning all the time in 2 feet of snow. But this deep snow was really very fortunate today for we should have been in in great difficulties otherwise with no footbrake. We took off four dogs for the descent of Sodabread. We reached the Argy refuge at 3.00 pm and found a depot of 1 box nutrican, 2 gallons of fuel but no more food. I think the box may have blown away for surely Nigel would not have slipped up there. Had smoke - cigarettes and chocolate left by Keith and Bryn. It was cold so we sledged on another 1/4 miles so slowly. Camped in the near dark and had to use pitons in the blue ice below the surface soft snow. Distance 2.5 miles 2,200 ft descent. Temp - 26F.

It was one of those calm, clear and very cold days for sledging down the Northeast Glacier. With -37F and pretty deep snow even with Henry out in front on a doubled rope making tracks, we made slow progress. Wol fell through a snow bridge but was pulled out alright. Two more bridges on the sledge broke. Between 11.00 and 5.00 pm, the twilight hours we made 7.6 miles. In summarising the trip I wrote "This has been a long trip at a difficult time of year and, I think, an exceptionally cold one for the season. With a lot of bad weather not as much was accomplished in survey and the exploratory line as hoped but still very useful and worthwhile. The greatest thing is the finding of a route into the Neny Trough. The dogs have had a bad time of it. Alpha, Zeta and Wol have fared best. Monty is in rotten condition thin and spiritless. Frankie, surprisingly, is very thin too. The new experimental Skimaster sledge has been a great disappointment with 3 bridges broken in shipment, two more on the journey and the brake broken three times. In fact it is only just going to see us back. We have only averaged something like 3 miles per day. It makes one wonder whether autumn and winter travel here is

³²In fact it was a party of three - Stan Black, Geoff Stride and Dave Statham - with two sledges of 7-dog teams

really worth it, the 'going' so slow and survey work so difficult. But we have learnt a great deal". Besides the survey and discovery aspect which interested me the most there was probably useful human physiological results coming out of Henry's tests on skin fat, urine diuresis measurements and the new Medical Research Council (MRC) experimental ration box which would have been better appreciated had we not been on half rations most of the time. He would agree I am sure that this was the hardest trip either of us had to endure which fatigued us considerably. For my part, in spite of his trying to unravel emotional problems with his last lady friend, a nurse, back in UK, he was the best sledging companion I could have had for a testing trip like this.

6th June 1958.

BASE. Slow going down the last 4.5 miles of glacier (temp -35 falling to -44.5F) we got in for lunch. Nigel got the engine going. Keith had a good lunch on the go. Pete (F) developing photos. The hut is in a very 'expeditionary' state with tents, skins, axes, etc all over the place. The kitchen is painted. New snow drifts formed. News that the San Martin base hut burnt down in March. Nigel and Co had a rough trip with long cold lie-ups. Not all happy about it. Apart from getting kit in I have done little. Temps down to -44.5F very cold but calm and misty on the sea line. Dogs loved their seal meat. A hard job axing it up. Must sleep now there is much to write about. (We must also have weighed the dogs besides feeding them seal as weights were recorded next day as are shown below)

Parts of Henry's diary give more information. From a mile out we could hear the generator at base and the dogs bucked up at once. They no longer needed a lead to keep them working. As we approached the last short ramp down to Base we could see all the way along the Neny Trough back to beehive Hill far away on the plateau. The first job was to span the dogs, weigh them and feed them a large chunk of seal meat each. We then took time to settle ourselves in and indulge the first tooth-brushing for 50 days. The other teams had laid up in the awful gale for six days almost running out of food and having only one shot of cooking time each day. The exercise had led to some ill feeling and quarrels³³, but all that was played down now we were together.

The details of the tragedy unfolding at Base Y to our North were as follows: Geoff, Dave and Stan left Base to put depots on the Dion islands on the 27th carrying 4 months of man food and fifteen days of dog food. They were last seen heading round the point of Pourquoi Pas Island 5.5 miles from Base and 3 miles from a place where they could get ashore, with several hours of daylight left. At midnight the gale began and nothing has been heard from them since. Since they were so close to a landing they are likely to be alright though stranded, and a small party is out searching but with care because of the new sea ice.

³³If I was ever made aware of a breakdown in morale during their privation I had forgotten it but hope to acquire copy of the late Pete Forster's diary which will throw light on it hopefully.

We again had a huge thirst and immense water intake but without any diuresis. Curious. Traveling at this time of year is rough going. But we had done what we set out to do, finding a new route over the top to the shelf ice of the east coast and leaving food depots for the way back home (from) the summer journeys.

The Dog Weights (in pounds) tell an interesting story of these incredible huskies of the Admirals team.

Dates	7/6	6/6	8/5	¾
Caesar	79	75	76	78
Babe	72	68	69	75
Johnny	79	71	76	82
Frankie	82	76	84	92
Buster	103	97	101	106
Wol	92	85	91	97
Monty	85	79	87	98
Alpha	92	87	93	100
Zeta	70	69	67	76
Team Weight	754	707	744	804 pounds

3rd April was normal base weight. 8th May after the big pull to top of the plateau. 6 June on arrival back to Base before a big seal meat feed. 7 June showing rapid recovery towards normal weight except Monty (worst loss) and Fankie also. Caesar, Babe and Zeta were the most efficient on the given ration losing no weight, in fact gaining marginally on the plateau exposure which is remarkable considering the conditions, but these three dogs were the lightest three. Caesar and Zeta had excellent coats for insulation but not so Babe whose performance defies explanation.

Search Journeys in Marguerite Bay

The gale blew strongly for two days but we got away on the 12th June. We could see open water 8 miles West of us and 'Y' reported their ice edge further in to Horseshoe from Bongrain to Contact Peak through Lagotelleri island to near Camp Point. Meantime Dick Harbour and Jim had manhailed down to Y from the Blaiklock refuge on ice still firm in Bourgeois Fjord. With mid winter approaching we hoped for cold calm freezing conditions to make new ice travelable and consolidate broken up brash areas.

We were away soon after first light with the two sledges, the Admirals and the Churchmen team driven by Nigel. At St. Martin base we were welcomed for a short hour as we were anxious to move on. They fried up steak and gave us coffee in the kitchen. They (Franco and Angel) told of two huskies seen but wild and running off in the direction of Millerand Island. We sledged in that direction and reached a beach on the N coast of the island at 3.30 pm as it was getting dark, but saw them again about 200 yards off. While Henry and Nigel put up the tent I walked up a moraine to see that the ice extended about 5 miles west and the route North looked passable. I put a pemmican block back on the trail to try to keep the dogs with us. In view of these finds I planned that we sledge right round Millerand and then visit, ice permitting, the Stipple and Pod Rocks five miles to the west on the ice edge. Soon after getaway passing the glacier front we came across the Argentinian refuge Hut used by their glaciologists. We met for the first time William Mollisse, Edwardo and Alfredo and delightedly, little Chloe, who they said had turned up there six days previously on the 6th June very hungry and very iced up. Chloe, delighted to see an old friend (remember I had played with Chloe and Yana when they were pups) wagged her whole body in recognition. While we were having coffee their relief sledges arrived from San Martin with Lieutenant Montero, Gonzales, Juan and Dr. Raphael. They brought news that their 'Southern' party just escaped the ice break up returning from the Terra Firma islands keeping just ahead as the ice edge broke up behind them. There was now open water south of Red Rock Ridge but still holding in Neny Fjord.

Leaving them with Chloe hitched to my cowcatcher we sledged down the western side of Millerand to a spit opposite the Randall Rocks. While they set up camp I sledged down this spit to the rocks but saw nothing except a beacon erected by the Argentinians.

In the morning, calm and clear, the low cloud having lifted, I climbed up a moraine to view the ice situation and take a bearing on the Pod and Stipple Rocks while Henry and Nigel sledged around the Randall Rocks. Following their tracks we then took a course that circumvented an area of open water and crossed some recently frozen leads 20' wide or so where the new ice was only 3 inches thick. We got within a half mile of the Pod Rocks but decided against getting closer as thin ice separated us, so changed course for the Stipple rocks passing through rough brash areas and soft parts but reached them after four miles on getting dark. I took a course around the North side and the other two around the South side and when

we met up, near dark now, we camped on the easternmost rock of the group. I decided that evening on another go at getting to the Pod Rocks, 8 miles there and back extra, but Nigel said that he had seen dog droppings today that did not belong to our teams. We had covered over 12 miles this day and 26 miles so far from base. It was -8F and calm so new ice should be thickening.

As planned, I took Henry for company. We got away in early light at 10.40 and made a good pace down our tracks of the evening before and then a tricky course through some narrow but rough belts of pressurised ice where big pans had lifted up and broken. We picketed the team. Henry scrambled up to the top of the rocks while I ski-ed around the edge finding nothing except amazing pressure where stacks of ice had built up in high ridges on the seaward and windward edge of the islands. We came back to the Stipples in just over one hour. While Henry helped Nigel get his tent down I got a mile ahead of them towards Cape Calmette. It was slow going in soft snow now taking two hours to cover 3.7 miles to a landing on this steep coast. We had covered 14.7 miles and the weather held good. On radio we heard of Alma's return to Base Y. This was significant as she was the first from Geoff Stride's team, the other dogs, so far, having come from Stan Black's.

Next day (the 16th) we lost no time and with the weather good and a reasonable surface we did the 20 miles through to Horseshoe Base. I got in ahead of the others at 3.45 pm near sunset. It was good to see again John Paisley, John Rothera, Frank Oliver and 'Mac' Macdowell (who would have gone with this lost party but for the fact that he was having trouble with his transmitter needing repair so stayed behind)³⁴. After feeding a good seal meat supper to the dogs and a fine meal ourselves in the comfortable hut John Paisley and I discussed plans for the search. John Rothera and Frank Oliver were members of the Detaille Island (Base W) party this year and had sledged down from the Blaiklock Refuge on ice in Bourgeois Fjord still intact. They had a team of dogs, whose name I forget, which with my Admirals and Nigel's Churchmen gave us three teams for search journeys.

Dogs from the lost teams had so far all come in or been found to the South. In case the men had got onto fast ice still holding in Laubeuf Fjord accessible from Bourgeois Fjord via the Blaiklock refuge it was planned that Nigel, John Rothera and Dick Young would search the northern fjords especially the islands and east coast of Adelaide. More probable was that both teams had drifted southwest in the broken ice turmoil but had maybe made a landing on the Dion Islands, their objective, or the Faure islands a further 16 miles South. John, Henry and I planned a journey to visit these islands on the first new ice taking two teams, mine and Frank Oliver's, to spread the loads. Meantime to cover the landings we had bypassed at Camp Point I took Mac Macdowell for assistance and company. We were away a week over midwinter in mixed weather. Near the small islands in Square Bay now called Line Islands, while looking to camp, we found Cocoa and

³⁴I presume this would have given the two parties a '68 or 119 set each in case of separation and only one set was taken

Umiak who though timid recognised Mac's voice and came up to be caught. Cocoa was in good condition with bits of harness and a trace chewed 6" from her collar but Umiak was very thin and had no harness. Also, on the radio from Bryn we heard that Ruth and Angus had come into Stonington a few days before. (These were the two dogs we heard about that the Argentinians had seen a week before we left). They were found with harnesses on intact. Had they been let off the main trace to free themselves from a tangle? We got through faintly on midwinter's night to pass and receive this news. While making new harnesses for Cocoa and Umiak, Mac produced a lovely tin of chocolate biscuits to celebrate this normally festive day. However, as both Zeta and Umiak were now on heat simultaneously we were much disturbed by the dogs. The snow was poor for picketing. Before I could get them tied to 'deadmen' crampons buried in the snow Umiak chose Wol and Frankie in turn as partners and Cocoa got off and mated Zeta.

On the 23rd, misty and calm, although a gale was blowing at Stonington we heard, we made slow progress in Cape Calmette Bay to complete that search and found a place on shore to camp, tying the sledge between two boulders and securing well the in-season bitches. On the 24th in deep slow snow with Mac leading to make a trail, we covered the 17 miles to a beach on Horseshoe Island. It was late and dark or we might have got in to base but did so by 1.30 next day.

Nigel and John Rothera at Blaiklock were having trouble with their 119 generator so we agreed to run one up to them next day. It was fine and clear with temperatures around -3F. All four of us left pretty early with two sledges, Caesar leading the Admirals and we made it to a rendezvous with them at Nautilus Head in good time. After a quick handover and a few minutes chat we trotted back in under three hours covering 23.4 miles for the run. The dogs ran so well and the conditions were so good. It reminded me of that first dog sledge journey with Angus Erskine just over a year before from Blaiklock to Horseshoe but it was -20F then and we had a few minor frost bites. Now with John Paisley, skiing beside the sledge with me this day, we discussed the planned more dicey journey which this colder calm weather with freezing ice would now make possible. No-one was more aware than he that a calamity had taken place that night of the 27th May, before the storm had commenced and he had seen them progressing alright off Pourquoi Pas' southern ice cliffs towards Cape Bongrain, he was, according to his journal loaned to Bunny Fuchs, "Overcome by an unbelievable feeling of calamity. The force of this was such that contrary to my nature I was compelled to get onto my knees and pray. Such a compulsion has never happened to me before or since. That very night, so he discovered when he returned home, his aunt had written to his mother saying "John has been involved in a terrible accident with loss of life, but he is safe himself". Praying may not have been his wont but his spirit and deep connection with family, friends and all of nature was evident in his quiet and spiritual being which I became more in tune with on these shared days sledging and island hopping in the sunless winter of 1958.

On the 28th June, Bessie and Cocky, from Dave Statham's team, came in to Horseshoe, neither with harness but both in good condition, Cockie with a little

blood on his coat. Had they killed and fed off seal in the past month? There were no penguins in the winter.

Frank and I went out on ski looking unsuccessfully for a trail of the dogs but saw none. I was towed by Caesar, Frankie and Babe, a fast means of travel and Frank followed by sledge training a potential lead dog called Rufus. I had been troubled by a painful molar tooth since on the plateau which this night Henry managed to extract leaving a root behind. He tried two injections but failing to hit the nerve John Paisley assisted in holding me still while Henry pulled. In modern days of laser dentistry and clinical conditions I think back on this evening with gratitude to our doc's skills.

On the 30th we did a speculative day trip on the new ice around the southern edge of Pourquoi Pas, testing its thickness which was in parts very thin and reached within two miles of Cape Bongrain, about where they were last seen, but found no trace of any attempted landing. It was another 20 mile run. Caesar was becoming excellently responsive in weaving the right curves around bergy bits to allow for the sledge some 50 feet behind. The importance of a good lead dog in this respect cannot be over emphasised because while a driver could side swing a sledge a few feet off its course to avoid mounting and overturning on a bergy bit or high sastrugi, it was the course of the lead dog pulling the whole team left or right that prevented these problems.

On the 2nd July while preparing for the Faure trip, mending a tent and getting rations together, SecFids on instructions from the Governor of the Falklands sent a telegram trying to thwart our plans. "A day of difficult decisions. Bombshell telegram from SecFids to the effect that owing to uncertain ice conditions we are instructed not to extend any sledging beyond old ice limits unless the crossing of new ice is possible in one day trips from Base. This ruling to apply until August when, if ice has consolidated, trips further afield may be considered". Of course we did not see it in the light of management facing bereft parents and the press over three employees' lives lost on broken ice and others risking their lives in the search and decided that the value of the trip was immediate. If still alive with inadequate food and shelter rescue should not be delayed. So we discussed before the following day's schedule that if John Green (SecFids) held to this ruling then John Paisley and I would have to resign, but still make the journey. Nigel reported that he had searched all Ryder Bay on Adelaide Island and found no trace. I took the Admirals out for a run in lovely conditions. It helped clear the air. My diary is very short for the following day of decisions except that we were late to bed but John Green did approve the Faure journey. We must have had reasonable voice RT to give the pros and cons. More time discussing who should make up the party concluding with myself, John Paisley and Henry (doctor) who would drive Frank's team of dogs to give us a second sledge. It was disappointing for Frank to hand over his team but important for Henry to be included. We got away on the 4th July 11.00 am and 600 pounds per sledge. Frank helped enormously, made breakfast and helped pack.

“Very good day with temps -12 to -15F. I led with Caesar doing awfully well. We were balanced for speed and made good time reaching Cape Bongrain (15 miles) at 2.30pm after a couple of miles of rough ice where I had to right my sledge 3 or 4 times. John walked on to the entrance to Dalgliesh Bay as we had come across a faint track made by two sledges - almost certainly of John and Frank’s tracks of three weeks ago - but just in case as it might have been the original of the lost party. I climbed the moraine to see the ice picture. We are rather cramped with 3 in a two-man tent but quite comfortable. On the schedule we heard that Nigel and Co were on Jenny Island (just across from us and Laubeuf Fjord) proceeding to Roca Island then to the Dions on the following day. They reported some leads and poor ice to the south of the Guebriant Islands which they visited today. The days mileage was 15 and the temp on camping -15F. It was calm with good visibility.”

We covered 16.2 miles across Laubeuf fjord on pretty rough ice next day to reach an excellent site on the north shore of Jenny Island. It was calm and -10F on camping but a wind got up in the evening from the North blowing to 20 knots so we moved only to the SW shore of Jenny island ready for the next stage to the Roca islands (or reef) as it was also called. I had killed a seal which the dogs much appreciated as did we for supper. Getting away on the 7th was a bit late due to a disturbed night which we found very amusing after the event. The alarm went off (signal for lighting the primus and preparing breakfast in the pitch dark). John was sleeping in the pup tent pitched nearly door to door but difficult to wake when Henry had got the porridge ready. He came through looking dazed and tired and we had our breakfast. While waiting for the cocoa John said “That’s funny! My watch has gone wrong. It says 20 past 3” To my amazement mine said that too! We both looked at Henry who then realised that though he had wound the clock up alright he had forgotten to check the hands. We crawled back to our bags in light relief with satisfied tummies for another six hours of darkness and pleasant sleep, meditation or worry as the case may be.

The weather overcast and warmer at +12F was fine for sledging with a good surface to Cape Alexander and all the way to Avian Islet. We had come via the rocks now called Ginger Island and another reef now called Jennings, after the Boatswain on the Biscoe.

Avian Islet lies close in under the ice-cliffs of the Fuchs Ice Piedmont. There are two possible ramps leading up to the piedmont³⁵. It is about 150’ high and three quarter mile long and equally broad. A v. Nice island. From the top looking (South) West to the other Henkes islands we could see no ice edge. The ice here is 9” thick with a good fast snow surface. Here was a small Argentinian Refuge containing fuel, and lots of shag meat. Nigel had thoughtfully left a note to say that he, John Rothera and Dick were visiting the Dions on a day trip and they turned up later to

³⁵BAS established a base (T) here a few years later with a Beaver and Otter aircraft flying off the ice piedmont. The choice of location and landing by the John Biscoe in February 1960 is described by Cliff Pearce in his book *The Silent Sound* page 102.

say 'nothing found' but more Emperors on the colony than he saw last year. My diary states that he was strongly against our Faure Island visit presumably on risk grounds and the ice state that he had experienced around the Guebriant islands and perhaps this day to the Dions. I thought the ice conditions better than expected but Nigel and the others pessimistic views did dissuade Henry from accompanying John and myself as we thrashed it out over breakfast the following morning. While I was sorry that we could not spread the load over two sledges there was also his medical responsibility for those here and at the two bases should we be stranded out on the Faures and away for a while. It put the weight on the Admirals sledge up about 200 pounds to over 800 pounds taking 3 ration boxes, 6 pemmican for dogs and 50 days fuel (10 gallons).

"John and I left at 1.40 pm with a full month's supply, the '68 set, an argentine axe for sealing and a very heavy sledge. We have also taken a 10th dog - Eccles - out of Henry's team. We travelled well for the first 2 miles then hit a salty surface which slowed us down to a slow walk. We left in fine visibility but low cloud and snow closed in behind us and when 2 miles from the Dion group threatened to hide them from view. But we reached the islands at 4.20 pm after a hard pull for the 8 miles covered. Our load is too heavy for the long jump onto the Faures. We shall have to depot some here and take the chance, which seems good, of finding seal and penguins on the Faures, should we be stuck there.

We are, even at this stage, doing our utmost to live off the land. By good fortune I found a seal, a huge one, a half mile from camp which I fetched while John was getting through on our nightly sched. Fed the dogs large feeds and we ourselves did very well tonight on kidney and steak with our lunch biscuits saved to go with it. There is another 2-3 days food on the seal apart from 200 pounds of blubber and skin.

We are camped on Emperor Island in a very pleasant little cove with the Emperors themselves huddled on a rock only 100 yards off; but we have so far been too busy to have a good look at them. As John says, it is strange to have got to the Dions now on such a different errand. He had hoped to be here about the 9th June on a trip to obtain embryos for Bernard Stonehouse at the correct development stage. Our thoughts are hardly scientific now for they might be a valuable food source if seal is scarce and the weather is unkind to us.³⁶

The party left at Avian Islet will remain until they hear of our return from the Faures. They are in a good position with an overland route back to the Adelaide depot. It is a good place. We have this nasty stretch of 16 miles before us nearly due South into the middle of the entrance of Marguerite Bay. The ice is not thick enough to withstand a gale and it is a long hop on these surfaces. But John and I know exactly what is involved and feel the risks justified under the circumstances. We don't know that the chaps are on the islands. It is a chance. But should they

³⁶Thank Heavens such dramatic developments did not arise to endanger these magnificent birds but I was aware of such possibilities should a major storm maroon us.

be there how glad I will be that this trip, anxious time though it is, may be justified; and the little sledging experience I have acquired put to some good use. Tomorrow we will try to see the group sighting on a magnetic bearing from the top of the highest rock. It is 149 feet high giving an horizon of 13 miles. If the islands are not more than 50 feet high we will not be able to see them. We will also sledge out on their bearing for 5 miles or so to test the ice and find some berg to climb and sight again.

Wednesday 9th July 1958

A nice fine day for what we wanted to do. When the light was good enough we climbed the highest of the islands and I set up the 4" prismatic compass to get the line of sight of the Faure group. But we couldn't make out the islands at all. We saw open water to the SW and W which looked about 6 miles West of the position the Faures must be. There also appeared to be open water a long way to the South. We sighted a berg on our course and came down to sledge a little in that direction. We did 4.2 miles before turning back. The surface appeared better than yesterday. There are patches of brash but they did not give much trouble. We had a very light load though. Left Wol behind to rest his leg. I hope it will not give him much trouble. John got through on the '68 well. There was a signal from D.C.S. to say that the Blaiklock (astro) fix of the Faures is at least within a half mile and probably within a quarter mile. The weather seems good so if it holds tomorrow we will try the whole hop to the islands. Every effort to leave v early. Quite cold today- down to -24F. Fine stratus over Adelaide and the mainland.

I had a few days before sent a signal to Petra Searle at D.C.S. asking to check with Lucy Windsor, who was a brilliant mathematician in charge of the D.C.S Computing Section³⁷, the sun observations taken by Ken Blaiklock, the Surveyor who fixed these islands on the map. Astro fixes vary so much in precision particularly the longitude which is dependent on accurate time. Longitude error would be an error in bearing direction going nearly due South whereas Latitude error would be an error in distance, not so serious in poor visibility. So this signal was more reassuring than my diary remark would indicate as low rocky islands probably hidden by pressure ice and bergs in the very poor light we expected to have could be elusive.

10th July.

We left a depot of one man ration box and 3 pemmican dog boxes (200 pounds) to lighten the load. It was just the weather that we wanted - calm, cold (-20F) good visibility though there was sea-ice mist towards the mainland we remained free of it. We left at 10.20 (still pretty dark) and made good speed to the end of yesterday's track. Then pressed on another 2.5 miles over medium good ice with easy ways

³⁷I was delighted to meet Lucy Windsor quite by chance in 2003 when on a walk with my sister in the Malvern Hills, co-incidentally at the triangulation pillar! She was catching a rare butterfly. Sadly she died of a cancer in 2005. She had contributed so much to the surveys by FIDS, BAS and DCS (later DOS) in the colonies mathematically adjusting triangulation and traverse networks. Later, as PeteF or I pondered over a survey problem the other would say "Go and ask Lucy".

through belts of pressure to near the half way point. We could still not see the Faures so looked around for a way of climbing up an ice berg but these ones were too sheer. We pushed on at a good pace over 2 miles of level ice to another prominent berg which John managed to scramble up. We had seen glimpses of the islands swimming in mirage approaching these bergs but John now saw them clearly. Though the ice looked rough ahead we decided to push on. The last five miles took two and a half hours for we had to choose a circuitous route manhandling the sledge over heavy pressure ice and finding gaps through walls of rafted pressure between old floes. To slow us further the dogs set upon Alpha who escaped and refused to be caught which was very annoying. John, in his excellent quiet and patient way, managed to catch him after a couple of miles. We reached the nearest islet at 3.40 pm but could not approach the East side owing to great pressure belts. We came back and sledged down the West side on level (new) ice and camped in a very pleasant place inside the island group.

It has been a beautiful day indeed, marked especially by the return of the sun as half its diameter peeped over the Fuchs Ice Piedmont shedding low golden light across the frozen sea, its warmth felt through the eyes rather than the body.

John is getting magnificent results out of the '68 set. Getting through to Paddy on voice and reading him 'loud and clear'. Bryn (Stonington) also came up, they were back at base after a vg party and the richer by two turkeys! I fed the dogs pemmican and we ourselves ate the standard ration. We saw no seal at all which is a poor sign. We simply need two more good days, which is asking a lot. Tomorrow we plan to search this group, the day after to return to the Dions. There, we are assured of food for some time but here, unless we find seal, we will be hungry in 3 weeks time. The ice from the Dions has been mainly broken up old ice. To the west there is new level ice stretching out some way. Hope we will not have drawn a blank in tomorrow's search of these islands. Distance: 15 miles. Weather: calm, excellent vis, low stratus to N and W. Temps -24 to -20 F.

Friday 11th July.

Our high hope of a fleeting visit to these islands have gone with to-day's change of weather. Pretty strong wind got up last night and has kept blowing all day. Visibility has been poor with pretty thick drift in the air and we haven't been able to see what effect this is having on the ice. My present concern is that we have found no seal yet 'though there are signs of seal around an adjacent iceberg about 200 yards off. Had to feed the dogs pemmican but we ourselves had some seal meat to-night brought from the Dions. J. Got through well on the sched on voice. Same weather there and a falling bar.

Temps +5 to +9F. Wind W to NNW up to 30 knots.

Sat. 12th July.

A fine cold day which gave us the chance of sledging in and around this confusing little group of islands. We have found no indication of dogs or men at all. It was -21 at 09.30 and -31F at 5.00 pm. A chilly breeze from the SE made it very nippy outside. We had to do a lot of digging first to free the sledge. I left Wol and Eccles out of the running but even so the other 8 took us along at such speed that it was

difficult running Bessie the sledge and to sit for long meant rapid cooling off. I tried to get along with my leather gloves and duffels but my hands remained cold so I had to change for sheepskin (gloves). In this island group are four about a half mile square each. Others range from this to one acre or so. None are higher than approximately 100 ft. Ice cliffs fringe the southern end of some. Most of them have wind and wave swept rock exposures. We didn't visit all the islands but are pretty confident the Dion party have not landed up here. We saw no sign of sea at all - a very cold day of course for them to come up. After getting back at 3.00 pm (having covered 8.6 miles) I walked to the top of the islet 300 yards to the south of us. There was a belt of thick fog 8 miles or so to the SW which marks, I think, the ice edge. The ice between us and the Dions seems unchanged fortunately though it is difficult to be sure. We were under the impression that the ice linking up the islands was old ice (at least 2 months) but when I dug a hole 200 yards from camp I was surprised to find it just 1 ft thick and not very hard either. We hope to make return tracks to the Dions tomorrow and I shall certainly be happy to get that double hop over. The pressure (baro) is steady. It is cold weather; John feels it a bit in his feet. I myself wish I had another vest and that my sheepskin gloves more resistant to wear; they hole very easily but are very warm. Weather: breeze SE temp -21 to -31 F. Vis good but mist over sea-ice in parts. Cirrus cloud.

I mentioned before John's telepathic connection with his aunt the night the Dion party left base. He did not mention it to me during breakfast early the next morning but his journal (quoted by Bunny Fuchs) recorded "I woke up, the tent a web of ice crystals, lit the primus and waited until they had melted away. I then sat up and put snow in a pan to melt, and was adding the oats when my mother came in through the sleeve entrance of the tent. She looked at me and said quite calmly that she knew I was very concerned about the journey back. She admitted not knowing what my worry was, but if I left here today then everything would be all right."

She was perfectly right. I recall that we discussed the weather. It was -32F at 09.30 a clear for most of the sky but thin stratus which John predicted a change in the weather in a few hours time. We left an hour later in a slight breeze and travelled as speedily as we could on the bearing of the Dions (our outward tracks had mostly drifted over). At 'John's berg' five miles on we stopped to discuss weather prospects. "At this stage several things were clear to us. The ice had cracked into large floes with the wind of two days before. It was in a very weak state liable to go out in the next gale and every quarter hour showed a lower cloud level and poorer visibility. With 10 miles to go we were taking rather a chance on trying to press through, a chance too on not meeting any wide leads between us and the Dions. The alternative of returning to the Faures and sitting out the ensuing bad weather with the strong possibility that it would clear the ice out and maroon us, equally did not appeal. So, praying for luck, we sledged on as fast as I could drive the dogs. A crack had opened up in a line from the Faures to the Dions and we crossed at right angles to this two leads about 4 ft wide where the dogs behaved very well. The visibility decreased as we knew it would but fortunately no wind sprang up. I took a bearing on the Dions from 3 miles off when we thought we

would lose them in the mist. We got in at 2.00 pm having covered the 15 miles in about three and a quarter hours. The forced pace and constant shouting up the dogs was pretty tiring. It is now snowing lightly and a light wind is stirring. The temp has gone up to +18F and the pressure at Base is falling. We shall probably be here tomorrow. John arranged on the sched that a party should sledge out to the berg midway between the Dions and Avian Islet to help us with the heavy load and also to serve as an ice reconnaissance of the first 4 miles. This on the next fine day.

There was relief unexpressed in the journal in getting back from the Faures, an inhospitable storm swept group of ice clad rocks but we had seen and found no signs of the lost party and that was a disappointment. If dogs could talk Eccles whom we had with us from Geoff Stride's team might have told us what we wanted to know. It was now 6 weeks from when they left Horseshoe and some conditions had been very cold and exposed in that time. That is no problem with tent for shelter, primus and fuel. Without all three and having perhaps fallen through a lead, hypothermia would be a matter of minutes. If they lost either the primus or fuel and had good shelter it would be a struggle for some days against dehydration whether they had any bodily means to melt snow and ice. In summer this is no great problem but in temperatures down to -40F it would be very tough.

With huskies it is quite another thing. They do not have the hollow coat hairs of polar bears but a very thick super insulating undercoat of thick fur and an incredible metabolism and determination. Of the 14, ten returned or were found in the 4 weeks after the blow out. We don't know from how far but the direction was somewhere southwest of Stonington. Of other husky survival stories the best is that of Steve who ran off from the relief ship 40 miles west of Detaille Island to which the Base W party had sledged for evacuation, and turned up six months later at Horseshoe having worked it out from his past journey, which Sandy Imray and I accompanied from Horseshoe to Detaille Island base. Considering which it is perhaps surprising that four huskies, Sneaky, Yeti and Visca from Geoff's team and Major from Stan's team failed to turn up. There was some evidence that traces or harnesses were cut by the men and perhaps these less fortunate ones got tangled up and drowned.

The weather did allow us to cross over back to Avian Islet the 8 miles next day. There were no cracks in this ice. By the 17th the three sledges and all personnel got into Horseshoe Island base. Specific search journeys were at an end. Some years later when the ship could get access to the Dion islands, a commemorative wooden cross and cairn was erected. To quote from 'Of Ice and Men' "An isolated memorial in a vast panorama of ice, to remind those who came later that these islands were the objective of three gallant young men in their last great adventure".

The only good thing that came out of this disaster was that the returned dogs made up a team called The Moomins under Henry's care, increasing our sledging capability at Stonington with a fourth team. We planned at once on return to Stonington to get on with the program of work - Henry's dogfeed trials, a Nyen Fjord recce journey, depot moving down to the Terra Firma Islands for Nigel and

for our summer survey journey. In our absence Keith Hoskins, Pete Forster and Bryn Roberts who had so usefully given ice and weather reports had also moved a quantity of supplies down to Red Rock Ridge 12 miles South of the base, a useful start to the depot shift. It was good to be back at base getting on with our work together interesting though the search journeys had been which in all covered some 450 miles of sledging for myself and Henry and perhaps the same or more for Nigel who stayed up at Horseshoe for some time repairing his badly damaged sledge and reluctant to leave the greater comforts that he had there.

On the 25th July Bryn reported that the news of the lost men had been released to the BBC the next of kin having been informed by the London office. I thought of the difficulty Anne Todd would have had in informing them and the sadness such news would bring to their families.³⁸

³⁸There were two fatalities the next year at Admiralty Bay, one where exuberant huskies out for a walk with Russell Thompson and Alan Sharman rushed past them in high spirits knocking them off their feet. The surface was icy and they slipped down over a cliff, Alan Sharman hitting his head on a rock. The other was a crevasse incident when 'Tinker' Bell leading the dogs in deep snow without skis on or a rope, fell through sledging with Jeff Stokes. Jeff lowered a rope to him and nearly got him to the surface with the dog team helping to pull when it all went slack and nothing more was heard in response to Jeff's calls.

Tinker Bell had tied the rope through his belt which broke.

Odorous living but thankful shelter

Back at Stonington the work program was immediately taken up. One of the investigations was Henry's 'Dog-feed trials'. Another was furthering his 3-hour long cold diuresis tests on us in the early morning (two good reasons for Nigel to stay up at Horseshoe) and another, before depot-laying journeys commenced when the dogs were released from their captive state on the span, a manhaul trip with Pete Forster to look for an alternative route into the Neny Trough from the Neny Glacier front. It was also a time for me to plot some of the Autumn survey on the plateau and Keith to further his geological work on specimens collected.

24th July.

...Tomorrow we start on the feed trial. This is a very important line of research whose aim is to show the relative merits of the new experimental pemmican of which Henry has been sent a limited supply. 18 dogs will be divided into 3 groups. Each group will be fed one block of the old type pemmican, one of nutrican, and one of the experimental new type respectively. Each dog will be weighed daily and his/her faeces collected for drying and later analysis in the UK. The final aim is to produce a dog food block with the best balance of calorific value, fat, protein and carbohydrate. Keith is to give Henry a hand in all the tedious work of weighing, collecting faeces, keeping the spans clean, drying the faeces etc.

This evening Keith made a rock slide which was beautiful to look at under the microscope with its maze of colour like a stained glass window. He is awfully good at his job. To bed 01:30 am. V warm today +22F and overcast.

Keith's birthday fell on the 26th which in his modest way he kept quiet about but it was known. I had made a cake the day before so we celebrated with table games in the evening, a poem about his smoking and a gift of a drawing block. (He was a loyal and esteemed hard working member of our team sadly killed in a car accident in 2004).

Peter F. Was also busy being inventive and practical in the small workshop. He made an instrument or rather, an adaptor for instruments, to fit on a standard tripod, using a sheet of alloy that he cut out and threaded, then divided precisely into degree divisions. On this he could mount an alidade, a camera and a compass. He was always modifying, trying to improve on designs of soft bindings, gloves, nose pieces and even cod pieces. We were going to need every improved bit of clothing gear on this so called Neny Fjord recce manhaul trip for which he was getting together a man haul sledge.

Friday 1st August.

I was up last night from 03:00 to 07:00 (my turn to watch and smell the dehydrating turds and keep the primus going) and then Henry started a 3-hour cold diuresis experiment. After that I slept until lunch. The pressure fell to a record low of 958 mbars but has since climbed again giving a fine cold day with temps -20F or so. We saw the sun again too! We weighed all dogs. Bryn and I lifted another seal (from 4ft down). Henry operated on Iota's eyelid which required everting. He gave

him an intravenous injection of Pentahol but half way through the operation Iota started to come around so with difficulty this was repeated. He (Iota) is now sleeping in the living room with us. There is a great deal of work on at present which distracts from my survey work but am getting through it slowly.

The operation on Iota was successful. I am sure he had tales to tell the others in the Spartans of his one night in the base hut - an exceptional occurrence.

Sunday 3rd August.

Full gale blowing all day with high flying drift and zero temperature. This is a wonderfully weather-proof hut though, sunk as it is deep into ice and drifts. I can feel the vibration of the roof as the drift flies across it. In the short space of a few feet there is unimaginable contrast - the warm comfort of my bunk, sleeping bag, my favourite books on 3 shelves, duffle slippers and seaboot stockings hanging on a prussik sling line slung across the entrance to the bunk as a curtain, half secluding me from the living room, warm still air and the ticking of a clock; and outside drift laden air sweeping at 50 mph at 40 degrees of frost. For the sleep card.³⁹ Indoors wearing hut clothing up 0900 bed 0215 am.

It was an extraordinary month for weather extremes. Four days later it rose to the highest we ever had +41F with rain, representing an 80 deg rise in one week. And within a few days we had our lowest for the winter to this time of -50.2F measured in the Stevenson's screen. In the thaw three of us cleaned out the exterior drainage trenches and emptied 100 or so bathfuls of water out of the under-floor reservoir through the living room window. The day's barograph showed a perfect depression passing over.

The morning after the gale on 3rd August the door was heavily drifted up and it took some time to dig the snow into the corridor and get out. At 'Y' they had had an 80 knot gale. It was a fine coldish day at -20F. I worked at the plateau map. The dogs were weighed trying to get all drift snow out of their thick coats. After dark Henry and I collected faeces by the light of a hurricane lamp. To bed 01:30 am. But some stayed up later doing their own or helping others with work. Keith never went to bed the night of the 6th and Henry stayed up until 03:00 partly because they shared the odious duty of keeping the primus burning. The standard thermometer went off the scale again on the 9th below -40F on a lovely clear day with slight sea-ice mist and brief sunshine. Nigel at long last chose this day to leave Horseshoe in our direction. It was colder next day with a minimum of -50.1F staying below -40 all day - very cold for Nigel and Paddy McGowan sledging who reached the Argentine base.

Peter Forster and I were now busy getting ourselves ready for the manhaul trip into Neny Fjord as all dogs were on this feed trial. Although it was his birthday on the 13th I took him out to experiment with a new crevasse rescue method, using an ice axe through the cowcatcher as a winch, from the top of a tabular berg. He

³⁹Henry was also studying us for diurnal sleep patterns.

also practiced taking a round of theodolite angles in pretty cold conditions (-25F) while I sketched and booked. Although he was fiercely independent preferring to use his own descriptive features and not numbers identified on a panoramic sketch - see the comic sketch from my diary - we began to recognise good qualities in each other which the manhaul trip put fully to the test.

We left on the 16th August pulling a constructed manhaul sledge with about 340 pounds load. As snow had fallen the previous two days it was a very slow surface. We averaged 1 mile per hour only and reached a spot on the sloping ice front near Postillion Rock which we could not find in the poor visibility. The rocks were blanketed in new snow. A gusty wind got up soon after camping raising a lot of drift. The temperature had risen to +25F very warm for manhauling. Next day was much better visibility but in two feet of soft snow now with a breakable crust it took us 6 hours to reach Pyrox Island covering only 4.5 miles. We had only brought 5 days food relying on finding the depot that Captain Johnston had laid from the Biscoe in March. So lying up on the 18th in a strong wind coming down the glacier through the Neny Trough I noted " It will be doing the surface a lot of good but hope it won't confine us to the tent too long for we only have 2 more days food in this box and must find the depot". We 'got through' to base on the '68 to hear that it was quite calm there but they could see a cloud of drift coming out of Neny Fjord. We found the depot one mile away next morning laid in a poor position not high enough up. There were bits of brash ice at its foot but no boxes were damaged. We took one box, returned to camp, packed up and manhauled into the south-eastern corner of the fjord circumventing the huge calved -off ice bergs pushed out by the glacier snout. As we could find no approachable campsite on-shore we had to pitch the tent on the sea-ice which I thought pretty safe. (In spite of the gales this fjord ice had not broken out even in the storm of the 28th May).

20th August.

I am reminded of the days last July (a year ago) when Sandy and I got caught in the heavy snowfall on the Lallemand Shelf Ice. All last night it snowed and this morning. I decided to move camp to the shore a mile West on the way to the Remus Glacier, partly to get off the sea ice but also so as to attempt a route up the Remus Glacier. It is clear that the Neny Glacier exit from the 'trough' is out. We struck camp when the weather cleared at 2.30 pm. It took 2.5 hours to cover one mile with the sledge dragging like a log in 2'6" of soft but heavy snow. We have camped on a sloping ice foot a few feet above the tide crack. It took an hour to shovel a reasonable platform for the tent. With the surface as it is we can barely haul the sledge at all. It is most irksome with days as precious as they are now. Dog trials end the day after tomorrow. Amazingly warm, not quite thawing. Temps +28 calm, overcast.

Although it snowed more in the night, the temperature fell to +7 deg F and we made 5 miles along the coast in 2'6" of snow where we found a steep ramp that would probably provide access to the glacier. We had a good seal/liver pemmican stew.

23rd August 1958.

The wind was still sweeping down the Neny Glacier this morning but as it was calm in camp we decided to retrace our tracks up the little glacier behind us. We got to the col on skis in 2 hours. Unfortunately the visibility was rather poor but we got some idea of the lower part of the Remus Glacier, which looks very crevassed. We came down at 3.00 pm and, on Pete's suggestion, set off to recce the side route up the Neny Glacier. It took half an hour to get to the ice cliff where we put on crampons and roped up. We climbed a steep snow ramp 50 ft high and then proceeded to cross the foot of a small entrant glacier descending from (Mount) Dudley. This was mainly windswept glare ice and the crevasses were obvious but getting onto the snow covered strip of glacier at the side of the Neny Glacier, the going was very treacherous indeed. There were many cracks all covered over with 3ft of snow which, with a thin crust on top, made probing very difficult. Unfortunately we could not go as far as we would have liked for it was getting dark. We each put legs through cracks on the way back. Considering the treacherous surface I think we were lucky to get down with less difficulty. Pete is pretty keen to spend a full day doing a roped recce further along but I don't think it worth it because the route is out for our return in the summer from the Trough and if he thinks of making use of it next year he would have to recce it again anyway because the rate of change of the glacier is so great.

Temp. -1F calm here but strong wind coming down Neny Glacier. Surface breakable crust. On skis 5 miles.

So we started our return in the morning of the 24th in calm weather but a trying surface until we reached the glacier snout where it was windswept and snow free, or what there was, was fluted into sastrugi. At the Pyrox depot we collected the theodolite and accessories and in the beautiful afternoon weather reached Postillion Rock 8 miles on our way towards base. The weather was so invitingly calm, temperature at zero, Pete did a round of angles. Lovely weather, enjoyable evening, we had pitched the tent on firm quite deep snow that obliterated the rocks of the Postillion group. We had no dog food boxes to place on the tent skirt but had dug some snow blocks to add to the theodolite and tripod and guyed the guys normally. On a radio sched we heard that Zeta had pupped 5 bitches and 3 dogs and my sledge was lying in pieces awaiting assembly in the living room. We went to sleep in a strong breeze of 20 knots thinking of an early start and a few hours to base. But sleep did not last long at all.

Monday 25th August.

Awful day. The fiercest wind I have ever experienced with visibility of 2 feet. The tent is standing on a pedestal of snow and anchoring it is very difficult. Very worried that it might not last the night. (There is) very little snow left above rock level now. The gale must stop soon or the tent is a goner! I estimate mean wind speed at 55 knots with awfully strong gusts. (It) has not let up once for 20 hours now. Little sleep.

For the next two nights and a day it was a weary fight to save the tent and ourselves but most fortunately the hurricane force storm blew itself out in a

further 36 hours. Pete's diary was chosen by Bunny Fuchs for his book. We wrote them up independently in the heavenly contrasting comfort of base. Mine first.

"We intended doing an astro fix here but soon after camping a wind got up coming from the Trough and blowing straight down the fjord. It gathered strength rapidly reaching a full gale by 10.30 pm, raising thick drift. It reached terrific force by midnight. We got no sleep with the noise inside the tent, the wild banging and flapping of the ventile. At 05.00 am I decided to go out and check the guys and snow on the flaps. On hands and knees I crawled around the flap. Though I could not see more than 2 feet through the drift I soon found that the tent was in a very insecure state. The theodolite, tripod and food box had blown off the side flap. All the large snow blocks had gone and the wind was eroding rapidly the base of the tent undercutting it. The outer flap flapped loosely and the pegs could not hold it. I tried dragging snow onto the flap but the blocks were carried away in the wind. Having retightened the guys putting a turn around each toggle I came back in and thawed over the primus. (The temp was steady at about 0 degF). After breakfast Pete went out roped (to me inside the tent) to see what he could do. He stayed out some time poking his head through the sleeve every so often to shout his procedure and how he was getting on. He first reported that the tent was becoming undermined and was already standing on a pedestal of snow getting undercut below flap level, and that some of the guys were no longer holding as the snow was eroded away leaving little above rock level. He then set about belaying the sledge as best he could with an ice axe and using one manhaul trace passing it over the crown of the tent as a top rope. When he came in, his face and wrists were amazingly iced up. He was wearing a face mask which protected it but his wrists got frostbitten. (I discovered this later at base when he showed me rings of blisters around each). We passed the rest of the day anxiously listening to the wind which showed no sign of slackening for a single minute its incredible force. The force filled the back wall like a sail with such power that it was impossible to tighten the back guy, but our chief concern was the erosion of the snow on which the whole stability of the tent depended. I went out again at 6.00 pm just before dark. I belayed the sledge further with a 'deadman' pair of crampons and used the second manhaul trace to help support the back guy. I also brought in the other pair of crampons which we later buried in the floor (snow) of the centre of the tent and iced them in (with urine) as a very good picket for the centre line from the apex. I could do little about the undercutting of the flap which flapped violently and was torn in several places. We spent an anxious and sleepless night unable to ignore the fact that if the gale continued long enough there would be nothing left to hold it once all the snow had gone. The wind kept it up all night. In the morning Pete went out again roped as before. This time he passed ropes around the tent and finding it standing on a pedestal of snow with the flaps hanging down over the sides he hung boxes on the tapes and passed in lines from the flap tapes to be lashed to the middle 'deadman' picket.

In this way we spent our effort fighting a losing battle. Then, a factor in the wind and drift worked to our advantage. The wind getting between the walls packed thick drift inside the layers which packed hard to form a solid wall. My side was so

undercut that a crack opened letting drift into the tent. I filled the hole with my lilo. We discussed procedure should the tent be blown away or collapse (loud shouts into each others ears). Fortunately at 6.00 pm that evening we had our first brief lull (about 30 secs) every five minutes. Three hours later it calmed to a strongish wind and then died away. The walls were so sagged in and packed with drift that the inner tent measured approx. 4' by 4' and in this cramped space we sat all night and dozed. We both dozed off once while the lamp was burning. It must have fallen off the box and I was wakened by Pete with "FIRE PETE!". Some spilt paraffin was burning on my bag. Soon extinguished alright but it left holes in my bag cover. Bag very wet indeed (luckily). We breakfasted at 06.00 and three hours later had taken down the tent, found our bits and pieces and sledged back the 6 miles to base in poor visibility. I have described in fair detail what was at the time an alarming prolonged experience. At one time I didn't think the tent stood a chance. Also aware that there was no shelter on the island at all - all glazed rock and glare ice - no chance of digging a snow hole and surviving long in our type of issue sleeping bag (open at the end) in those conditions, small. I find out that the mean temp at base during the period was zero and that the baro went down to 960 mbars."

Parts of Pete's journal are more prosaic.

"When Pete (Gibbs) went out to tighten the guys he returned with the bad news that the snow around the tent which was holding the pegs was rapidly eroding. As the day progressed the gale developed into a full blizzard, which was frighteningly amplified by the loneliness of our poorly pitched tent. Midday arrived, and it was my turn to crawl from the damp but relatively comfortable sleeping bag, don all possible protection and, tied to a climbing rope, push through the sleeve entrance - the gate to another world.

A world of such contrast that the first moments were spent in bewilderment at the harshness of the scene. No longer did the pleasant rocky knolls surround the tent, nor did the impressive cliffs of Roman Four appear above the blue ice cliffs. Gone was the berg-flecked sea ice extending to mountains that reach for the sky... Instead there was a world of hectic motion, a fuming cauldron, in which rearing, stinging drift spiralled past, driven by the fantastic power of the wind; the drift and cold not only affected sight and hearing but one's very mind, even here in the comfort of base, to me the drift still swirls over Postillion Rock. Such were my impressions on first emerging from the tent.

Then the task of inspection, which showed that the surrounding snow had been scoured by the blast, leaving the tent perched on a pedestal. The boxes which had originally rested on the canvas skirt had fallen way leaving it flapping wildly in the wind. It was obvious something would have to be done soon if the tent were not to be blown away. Under the conditions even tying a simple knot took minutes because it was out of the question to take gloves off. With Pete's help from inside we managed to tie ropes and secure the guys by various unorthodox means, and still the blizzard had not reached its worst.

Before darkness fell it was Pete's turn to do battle outside, and he found that by then it was only possible to crawl against the wind. Then we sank our crampons deep in the centre of the floor, froze them in with whatever liquid we could muster, and fastened a central cord to them to hold the tent down. Not even the sense of false security obtained from cotton wool ear plugs could bring sleep that night. Gradually the tent shrank as drift filled the space between the outer and inner walls, thereby weighing down the inner walls. By morning things were in a shocking state; one side of the tent outer was flapping freely and rapidly tearing; Pete's side had been undercut about four feet. I didn't think it would last much longer. Soon the overhang on Pete's side fractured and drift poured into the tent through a nine-inch gap at ground level. This Pete plugged with his bedding.

By now all was prepared for the worst - all clothing put on - food in pockets - compass- survival plans discussed. With all possible done we sat and waited; without the increasing blizzard - within, our thoughts. Thoughts of a sudden gust, a crashing tent, the bubble bursting leaving nothing but cold drift penetrating the sleeping bag. Then dreams, dreams of one thing only-perfect sleep. Then hopes - then prayers - even, perhaps, a little faith.

Then the blizzard eased, just short lulls between lengthy blasts, then longer lulls, then silence. Unfortunately dusk was already falling and another fourteen hours of suspense had to be endured. By now the tent had shrunk until there was barely room for us to crouch side by side, and making it impossible to sleep because of the cramped position. In the end luck was with us, and by two that afternoon we made a thankful return to base. Never before have I so enjoyed such physical and mental relaxation as I am getting now."

We shared many further experiences together in the Antarctic and afterwards climbing hills in Scotland, and his last, helping me with some surveying in the Musandam fjords of the Sultanate of Oman, but when, three weeks later, I was telephoned by Norman Leppard that he had just died in a London hospital after undergoing a routine checkup for a bladder cancer (that he had been treated for some years previously), my thoughts through that night went back vividly to the 48 hours we battled together to save the tent and possibly our lives. As Norman said at his funeral he was very laid back and easy company, interested in all your doings, but if you were in a tight corner there was no-one better to fight it for you. He had a second year down South two years after this one, for which I would like to see his diaries to describe the exploratory survey journeys he progressed in this area south of the Neny Trough. I may then add a chapter to this memoir. Sadly, the three Fids flown in to Horseshoe with him in '61, whence they sledged down to re-occupy the abandoned Stonington hut, cannot now be traced by the British Antarctic Survey.

On return to the comforts of base from Postillion Rock, SecFids telegrammed ambitious plans for a new hut on the island in the following March, a large building about 90' by 20 feet to accommodate 12 men and a hangar to house two Beaver aircraft. Would I advise the best site on the island and how much shingle there was for concrete? As Stonington was several feet under snow and it was currently

snowing incessantly it was not at once possible to reply. Indeed with the wind and drift I wrote on the 30th August "For much of the day it has not only been undesirable to go out but impossible owing to the complete drifting up of the back door, our only exit. After Henry had spent a strenuous hour digging a way through, Pete and I did some photography trying to capture drift effects. And Henry, Pete and I had a look around the island for possible new base hut sites".

The weather now averaged around -20F. It was a pleasant busy interlude preparing sledges and equipment and giving the new teams training runs. I finished the lashings of my new sledge from the parts lying on the Sitting room floor.

Wordie Ice Shelf Depot journeys and Geological Journey

September and the beginning of glorious Spring and sunshine when everything comes alive and all the penguins, petrels, skuas and gulls return to the coast, was the month of our active start to getting depots laid down the coast and seeing Nigel and Henry away on a geological journey into the Cape Jeremy area. The main summer survey journey which would follow their return and start from the Wordie Ice Shelf with Pete, Henry and myself with three dog teams, also required a depot laying down there to keep us in the 'field' for up to two months for we had no support of aircraft and once away from the coast inland your supplies that you carried had to see you back to base. Keith Hoskins and Bryn would do geology around the coast of Neny Fjord nearer to base, which would often be unoccupied so attempts would be made to keep in contact with Base Y (Horseshoe) and each other by radio. In all, Pete and I did three journeys down the coast the 80 odd miles to Mushroom Island near the Wordie ice front thoroughly enjoying each other's compatible company and the spells on base in between, busy and planning and caught up in the high tempo of life in the Antarctic Spring.

Getting away on the geological support journey was not straightforward. To get my sledge out of the living room, after its assembly from the remains of the Skimaster sledge, much damaged from the plateau journey, and parts off a sledge from Anvers island, required digging down 6 feet or so to expose the window through which it was lifted out vertically. I recorded this on cine film. Having done this a tunnel was dug along that side of the hut and roofed with sections of the unused refuge hut. This gave a useful second access to, or exit from the hut, since every blizzard filled the space beyond the main door. Keith developed a serious ulcer from an infected tooth which put him to bed on the 6th with a temperature (taking with him a serious tome on geology) but this did not delay Henry's departure too much because he pulled the tooth on the 7th and saw his rapid recovery with penicillin injections in the next two days. We all left on Wednesday the 10th September.

I got up at 07.30, a travel day but not very good weather. Getting away took some time. Leaving the hut vacant one has to take the precaution of lifting everything off the floor free from the danger of being iced in. Two (dog) spans had to be raised onto barrels. I left at 12.30 (with the Admirals) followed by Bryn and Keith with the Spartans. Nigel and Henry left at 1.30 (with the Churchmen). Henry's diary records "All morning Pete was fretting and fuming because Nigel was not hurrying, and finally left alone (with the Admirals) at 12.30 and Nigel and I last at 13.30 by which time Pete was disappearing around the corner of Neny Island".

I had to wait frequently en route but on the whole Bryn (with the Spartans) and I kept together. It was a pretty slow surface to the NW corner of Neny Fjord but things improved greatly then - a fine surface across Neny fjord - some sunshine and very enjoyable sledging with a light load and dogs going well. I did some survey and took a few cine shots. We reached the depot (upon red Rock Ridge) at 4.00

pm and decided to continue on to the Refuge Islands. At the depot the three sledges for Wordie picked up their supplies. (This depot had been usefully laid by Pete, Bryn and Keith during our winter search journeys) The Admirals load now increased from 450 pounds to 800 pounds and the Churchman's similar. We continued on a good surface to the Refuge Islands and camped making 13.2 miles for the first day. Temps +4 to +10F.

It was a week earlier in the season but 11 years before that Kevin Walton described his abortive West Coast journey from Stonington in company with three Americans from the Ronne expedition. They had poor sea ice and poor equipment and had to turn back only a little beyond Refuge Island. There was no refuge hut here it may have got its name from taking refuge off rotten sea ice in the same way as the Terra Firma were so named by the BGLE after a lucky dash from breaking up sea ice. Happily we had no untoward conditions and equipments were well tested. In fact after our winter trials conditions in the Spring and Summer were mostly a picnic and the ice had consolidated well in the previous three months.

The second day was extremely trying. It took Nigel an incredible three and a half hours to get himself packed up and ready to go while Pete and I were out waiting. We could do no survey because the visibility was very poor. There was two feet of soft snow. It took us 6 hours to cover 7.5 miles my dogs doing very well with a 950 pound load, after taking 3 boxes off the Churchmen. We camped on the sea ice half way to Moraine Cove. And again day three we only made 6 miles with deep snow and visibility just 30 yards. We crossed several narrow cracks into one of which both Buster and Wol fell and had to be pulled out. We all squeezed into the three-man tent that night again camping on the sea ice of necessity. But next day, the 13th, we made much better progress doing 17 miles to get to Query Islet. Across aptly named Windy Valley mouth it was a very fast surface for 8 miles the dogs nearly cantered but the last 5 miles south of Mikkelsen Bay were slowed to nearly sticking. It was traveling 'blind' by compass but luckily on course to hit Query islet, a steep sided and ice covered islet. We again camped on the sea ice beside. It would have been difficult to scale the ice cliff. The next little island was Keyhole Islet four miles south by a circuitous course to avoid bergs and ridges. A tide crack had made a moat around but narrow enough to cross and though the ice foot was steep we could camp on this one. Testing the depth of snow above the sea ice a probe went down 5'6". Again the visibility was poor with a low cloud base so we could not claim to have seen any detail of this coast as we approached Cape Bertaux on the 15th covering 11 miles. I was making for a little group of islets off the Wordie Ice Shelf. A wind got up raising thick drift so it became difficult to keep sight of the sledges behind. We came into a maze of tabular bergs broken off the Ice Front. We camped in the lee of one of these. Our daily average so far was 10 miles. Nigel got through on the '119' to base Y which brought Henry in to our tent to deliver the messages. SecFids was enquiring what shingle was available on Stonington (for concrete mixing for the new hut). We laughed at this as the surface of the island had not been seen since we were landed on it last March. The other was a reply from Finn Ronne in America as to his inland route back from his famous

trip to the southern end of the King George 6th Sound. The sea ice had gone out but luckily he had done an air reconnaissance and they got back via glaciers behind Sickle Mountain leading into the Traffic Circle and the Neny Trough. This was the general route we would survey in November and December.

16th September.

A rather unprofitable day we sledged on the course of yesterday towards the Wordie Ice Front but after one mile were brought up by a rampart of large tabular bergs. I led on hoping to find a route through, but after a couple of miles of twisting and turning we were brought up by such a maze of stranded bergs that we eventually turned and came back into the open sea ice to the North. The bergs were drifted up so that one sledged over tabular sections and large drifts. Some bridged cracks in the sea ice and Monty fell through crossing one. While he was hanging I had to cut Wol free to prevent him falling in too. I was roped and pulled Monty out. The light was so diffused one could see no definition at all, very trying. Having sledged out we skirted to the west and camped 5 miles from Mushroom Island, having gone 13 miles but only 4 miles from yesterday's camp as the petrel flies.

We reached Mushroom Island next day and decided to make this the depot location and separate our parties. The sky cleared that evening, at last, so Pete and I observed faint stars for azimuth finishing at 0200 am. So we separated in the morning, Pete now taking Henry's dog team the Moomins; poor Henry sorry to see them go but we needed the depot laying capacity of an extra team, and he and Nigel would make their way with the Churchmen into the Cape Jeremy area on the edge of the Sound. They will have 5 weeks provisions from here. It was just over 70 miles from base the way we had come but we hadn't seen much of the coast the previous 8 days.

Now Pete and I wanted to get a route onto the Ice Shelf before heading back to base. Low cloud obscured all visibility. I laid off a course. After 12 miles we saw the coast of Cape Berteaux and came up such a large drifted tabular berg we thought we were on the Shelf itself and had difficulty seeing a way off it in the poor light so camped on top having done nearly 15 miles.

19th September 1958.

Vis down to half a mile this morning with low cloud and little definition. It brightened up after 11.30 and we emerged to do a recce on foot finding a route with many ups and downs off our berg into a strait where great pressure ridges had been formed with movement from the shelf ice. We returned, packed the sledges and sledged into this channel and from here up a 40 ft steep drift onto the shelf ice proper. We marked this spot for our later return with my brake handle. We sledged a further 2 miles crossing two rifts where, luckily, we found drifts going down and up the other side then came to some crevasse-like features (small rifts) and while inspecting a way through my dogs started an awful fight. I took me a few minutes to run back. There was chaos for a moment or two while they tried to run off with the sledge. I turned it over and started to sort them out. Alpha and Babe escaped and ran half a mile away - blood all over the place but no serious

bites. Regret to say I broke my ice axe dealing with Johnny⁴⁰. As it started to snow hard with nil visibility we camped at the scene of this melee. Babe was on heat and the cause of this dog scrap.

The weather blew with drift preventing any travel until 4.00pm when it brightened up to enable a return of 8 miles on a good surface to camp in the lee of a berg near Cape Berteaux. We took some cine and photographs and this one of the Admirals with the Cape Berteaux behind and a typical rift in the shelf ice captures the scene nicely. They look as gentle as labradors quite forgetting the scrap of yesterday.

(Insert photo)

It blew hard and we had our first lie-up day. Then to make up for the clag and soft snow of the trip so far, it brightened up, the surfaces were good and we covered the 53 or so miles back to Base in two good days of grand sledging.

The first, via the terra Firma Islands (10 miles in two hours) then a change of course for the Refuge Islands which we covered 16 miles towards and camped on good sea ice two miles off the ice front of the Bertrand Ice Piedmont. Skiing beside the sledge in good sunshine with beautiful evening lights and rose-tinted cirrus clouds was much appreciated, as was the first clear sight of this dramatic coast. It was -2F on camping with a breeze from the North making it chilly after a sweaty day of exertion. Liz was in advanced pregnancy but keeping up the pace alright. Babe was on heat but the dogs not interested fortunately. Their attentions were on Zeta having an apparent heat only a month after pupping. Babe and Buster chewed through harnesses last night which were uncomfortable with the freeze and thaw conditions. All dogs were fed two blocks of Nutrican. The second day, equally good on progress reaching base in the evening but dull overcast weather and the first ten miles to the Refuge Islands were slow in soft new snow. Here we killed and stored two seals to give the dogs on the Summer Journey. Surfaces vary enormously up this coast as we came on icy snow free surfaces opposite Windy Valley. At the Red Rock Ridge depot we were surprised to find Bryn and Keith's encampment who told us, when they emerged, Keith hauling a rock behind him, that they had had continuous strong wind down the fjord since we had left them here ten days previously. They had another 8 days supplies. In the 20 minutes there Bryn passed on to me detailed drawings of his radio gear at base. Neny fjord was fast and rough with wind-packed ridges and sastrugi. While Pete dug a way into the hut (the drift flush with the roof as ever) I put the dogs on the spans and fed them. Once the living room fire had been going for while the hut warmed up to near freezing point. We relaxed having accomplished this first support journey in 13 days and felt well pleased with the rapid return in just two days.

I managed the schedules with Paddy McGowan at Y (which gave me pleasurable confidence in the technicalities that I usually delegated to others and which on

⁴⁰That sounds more merciless than reality but in extremis the haft of the ice axe, when a rope bonker was no readily to hand, could restore control before dogs were seriously bitten.

base were Bryn's first responsibility). It was mum's birthday on the 25th so I sent off a telegram and noted the locations of the two field parties, Henry and Nigel encamped on the Bugge Islands and experiencing slow conditions. Liz produced a single pup early in the day. We waited on others but my diary does not record further births or what fate awaited the poor creatures. It was -11F and breezy, cold for late September. I weighed the Admirals finding Wol only 85 pounds against his usual 95-98 whereas Buster was up at 111 pounds in spite of two recent long hard days work. Being a neutered male he lost no energy fretting over females on heat. I was told some 45 years later by Jim Exley⁴¹, who remembered dog histories very clearly, that he was neutered because his genes contained some Argentine dog ancestry.

Again delayed in departure on the next depot run by drifting weather. I had cause to remember emptying the gash bucket outside. "To empty the gash bucket takes a full hour by the time one has dug 3 cubic yards of snow away from the door and shovelled the steps cut into the ice, and so climb out of the hut. Then on returning, invariably an avalanche of snow will follow and cover the floor of the lobby. It is not infrequent that one loses a foothold on the steps and glissades into the hut from the level of drift outside, 8 ft above, or, as I did today, lose a footing and empty the gash bucket all over myself."

We did the next run, Pete and I with two sledge loads down to Mushroom Island, leaving on the 30th September, my birthday, and getting there on the 4th October. It had turned mild with wet snow and slush on the sea ice with poor visibility, but we added to the depot to leave there 14 dog food cans, 3 man ration boxes and 8 gallons paraffin, about 950 pounds in weight. We ferried these across the tide crack and carried them up onto the secure position on the island. We were held up on return at Terra Firma by a strong wind but reading Laughing Gas by P.G. Wodehouse the time passed hilariously. With some good days we got back to base on the 9th, a 39 mile run, the longest I ever did in one day, after a lie-up in wind on the Terra Firma.

We left at 11.15 the wind blowing pretty strongly, the first 10 miles in drift that scudded across the sea ice from the NW, the sledge was blown around at an angle. It then cleared and we made good time to the Refuge Islands, another 14 miles reaching them at 4.00 pm. Here we killed a huge seal and loaded it on Pete's sledge while I took all his load. Between here and Red Rock Ridge we hit the Argentinian's trail (this morning's I think). I soon branched off on a direct course to Neny Island. At one stage the Moomins decided to go after a seal instead of following me and Pete's sledge overturned. At the same time my dogs started a fight, ran off and the sledge also overturned. We reached base on dark, had to dig for some time to uncover the door and grope a while in the dark. I fed the 'boys' nutrican and will chop seal tomorrow. Hut in a damp state. The sump beneath the floor boards is

⁴¹Jim Exley had the Admirals at Horseshoe Island in the years 1955/56 and contributed generously to the Husky Pen Club for the new dog shelter at Yeroskipou, Cyprus in 2004

up to board level so will have to start drainage operations. Distance 38.8m. Wind from NW up to 30 knots and giving a firm crusted surface.

There followed a very happy and busy 3 weeks with Pete on base, much digging of the exterior drain passages, making accessories like strong ski sticks to replace the fancy flimsy ones supplied. Pete made a good camera case from an old pair of mukluks as the canvas supply had run out. We had a very good social visit from the Argentinian base. They brought an amazing 90 lb side of beef! We rarely used alcohol but with them here for the night we brought out the drinks. I talked late with Franco about our different expedition styles. He was a very good genuine man who gave me a fine balaclava helmet. I recorded their visit on some cine film showing amusing sign language gestures and much back slapping. Gone was political stand-off and protest about occupation rights. We co-operated genuinely, laughing at language communication problems. Sometime after this they burnt down their base hut but we did not hear about the disaster until we evacuated Stonington by sledge five months later and called in on the way past.

Bryn and Keith got back in after a successful outing with some 500 lbs of specimens and Nigel and Henry also on the 31st October doing a 39 mile run in one day from the Terra Firma to make us a complete party again for a few days only.

The geological Journey into southern Marguerite Bay

For Henry it had been mostly a frustrating 2 months accompanying Nigel. He found the same difficulties that I had found the previous year, mood swings, ennui during lie-ups and lack of enthusiasm. They could have, he felt, accomplished more; but they did visit various rock sites around Cape Jeremy collecting valuable specimens. Henry was the best of us to accompany him, easy going and non-confrontational but reading his diary, which he sent me just recently, there were severe trials and clashes of personality. I wrote earlier that Pete Forster and I accompanied them down as far as the depot on Mushroom island.

On day 4, September 15th, Pete was accompanying Henry driving the Moomins, his team. He wrote "The scenery is magnificent even in this bad visibility. We passed the Terra Firma Islands about 7 miles to our West. They looked really great. We chatted about the river Thames above London. The dogs were pulling so well that I was day-dreaming away, half asleep to the rhythm of my skis and was quite shocked to wake up to the Antarctic". He was under some mental strain from world events that might affect those he loved at home and dreaming at night "Dreamed again last night about atom bombers attacking Russia and vice versa, and it was all very horrifying, especially trying to get round to save those I loved. Dreaming too much recently."

He disliked having to hand over his team, the Moomins, to Pete Forster, an arrangement I had required, although he saw the need for it to give us more depot-laying capacity, and gave vent to his feelings in his diary on September 16th "Pete F drove my team (reluctantly) and did quite well, although as usual, would not learn anything at all. He really is the most annoying of fellows. Says "Aaaaah", the dogs will not stop, so alright "Huit!" Will not take any criticism. And a little later the same error nearly lands him in big trouble on a drifted up berg. I don't think the lesson will sink in. I get more and more depressed about the way I have been and am being mucked about on FIDS bases. If I had been a little more forceful character the story might have been very different, perhaps". Very depressed writing indeed but it certainly passed because Henry, Pete and I got on famously on the Southern Journey together and became the firmest of friends through our later lives. Sledging on in front of them I was not aware of these emotional conflicts at the time.

We left them on the 18th with sufficient supplies for about 6 weeks on full rations. "The two Petes left at midday in good form, and I was sorry to see my dogs go, but it won't be long before I have them back again. We are left with 9 nutrican, 5 man food boxes and 10 gallons paraffin." Our attachments to our beloved dogs ran very deep. I can see it all deeply in retrospect. They were the scratch team from the survivors of the disastrous Dion Island journey of the end of May. Henry had welded them into his own team over the past three months and knew and loved every one of them with their individual characteristics. You lose some of your soul to see you own team being driven off by another. But it was for the general good.

Another blow was the loss of a compass given to him by his father just after the war and of great sentimental attachment. It was left at the camp before Mushroom Island but snowfall would have covered it so they did not return to look. After some lie-up days any melancholic thoughts were banished in activity.

September 22nd (day 13).

Towards evening it cleared leaving high alto and cirrus clouds, all very beautiful, and we once again in sunlight. All day a cold wind with temperature around 4 degrees. We packed up camp in the morning - it took much time to dig everything out - but all was done eventually. Took several photos of lashing up and harnessing. At first I led out for we wanted to get clear of the area of cracked sea ice. We were camped in a maze of cracks - small ones probably due to reefs exposed at low tide - one ran under the tent. A wide crack ran around in a semi-circle around the north end of the island which, at the point we crossed was three feet wide. By the time we reached it Sis was off and the sledge had bogged down in soft snow amongst the bergs. Taffy fell into the crack. The sledge crossed it and bogged down on the far side, so we had to unload and clear that away. When it finally came clear it shot out like a bullet. Nigel broke a snow shoe trying to stop it and the lash line, which I had been standing on with my ski, wrapped around my feet, yanked me down, and dragged me along. Once under way the dogs did extremely well, the surface alternating hard bearable to breakable crust and they hauled away like mad pulling a load of about 1000 pounds. We made good almost 9 miles in 7 hours traveling and are now camped on a good hard surface in the lee of a berg, four to five miles from the nearest shore landing. So ends a pleasant day. I plotted our course and position on the map and enjoyed doing so. Now pleasantly tired and ready for bed. A snow petrel flew around us with the open ocean some 60 miles away.

The Churchmen were a powerful team and Dean was a good lead dog. The load was over 1000 pounds with a breakable crust as they weaved a way through gaps and past mile long ice bergs on the 23rd skirting Astro Island towards the Bugge Islands. They had to cross several cracks in the sea ice and at the third, Dean was having none of Nigel's command and chose his own route and a better one it turned out to be. He was an intelligent dog that took responsibility for his team. If a picket was inadvertently pulled by the restless team Dean would alert Nigel with a short announcing bark.

The tantalising views of Mount Guernsey and Mount Edgell were examined with a yearning climbers' eye. None of these sentinel mountains had ever been even approached to their base let alone climbed. He appreciated the grandeur of this untouched world but his thoughts were always reverting to unrequited love relationships back home as poignant as they were when I first spoke to him on the rail of the John Biscoe. He would wind like a slave the 119 generator hoping to get a signalled message from Irene or 'Mouche'. Like monks banished to a celibate monastery many diaries probably reveal the heartache of strong passion bottled up. Thankfully, two years or so later he had met the woman he happily married in the Medical Research Council in London and in late July '61 he was my best man

in a memorable wedding to my Judith in Chester Cathedral, an event very amusingly filmed by Pete Forster.

But back to their slow progress across treacherous surfaces off the Wordie Ice Shelf, they had a blow with much drift on the 28th September and in the morning there were nine mounds showing where the dogs had been buried with here and there some fur showing through. It worried me to read that "I had trouble digging everything out without a shovel - I lost my temper". How dangerous not to have a shovel. Was it lost or broken perhaps that he had to use a ski?⁴² A few years later a team of two and their nine dogs were found frozen to death even though the one was standing at the mouth of their snow hole with shovel in hand. The other must have lost his way a few yards off checking the dogs in horrendous conditions. But to tackle drifting snow without a shovel is to really feel exposed. But they got under way to North Micah Islet and left there a depot of ten days supply, finding plenty of rock exposures, and "Cape Jeremy to our South is magnificent, a collection of peaks and pinnacles and I don't know what - but there is no time to describe it. I shall try a painting tomorrow... It feels great to have really done some mileage at last and be rid of the dreadful relaying business."

On October 2nd their 23rd day out, the daily average had dropped to only 4.7 miles. The drift was high and troublesome as they entered the mouth of King George Sixth Sound and stopped at Powder Island. "A strange little island barely half a mile long. The North end shows exposed rock fragmented and shattered looking like a chocolate red gravel. Close to the island were big pressure ridges which we got through alright. We reached the Rhyolite Islands at 19.35 and are encamped, the first land camp since Refuge Island and quite a relief. I walked to the top of the island to look southward. A big belt of bergs lies to our South and a route will be difficult to find but tomorrow we hope to make for the Niznik islands close to the ice front. Both footsore and weary. We made 25 miles today"

Sadly, they could not keep this up. Nine whole days of lie-up followed. As if anticipating this on the first idle day, Nigel started to ration various items like candles, matches and then cutting down the daily ration, without joint discussion with Henry. Relations must have been strained when Henry wrote on the eighth lie-up day "This business of being out as a sledging assistant is not really much use. Unless there is a team to look after and drive there is so little else to do. The only reason for being out is so the other fellow can be out, and if he wants to drive, feed, and care for his own dogs there is nothing more dull for his "assistant"". He was looking forward to an end to the journey and with just five days food left to get back to the depot on Mushroom he called the margins exceedingly thin.

On the 33rd day out, rather weak from a long lie-up, they cut down to half rations to give some extra days to geologise, which up to now had not been accomplished. They sledged 3 miles to some exposures and camped on an ice foot in a bay under

⁴² I observe next chapter on the Summer Journey that of three shovels taken two broke and one cracked and it was Henry who noted that they should never be used as levers.

some steep snow and ice cliffs in sunshine, good for drying out damp bags. The next two days dawned in good weather and they made the most of it, accomplishing considerable geology that made up for all the inactive days to date. Some caution was thrown to the winds but they brought back the rocks.

October 13th. I looked out at 07:00 and saw the sun shining on the sea-ice, the tent still in shadow. We ate a miserable half ration of breakfast then snoozed a bit for Nigel was cold in his bag last night having had no supper. We were away by 10.30 as the sun fell on the tent. We planned to leave the camp and trek over to a distant outcrop. Took my rucksack, 2 cameras and film, empty sledge bag to wrap specimens, climbing rope, ice axe and geological hammer, a pair of skis each, waist slings, duvets and a piss cylinder. High cirrus was spreading over and a belt of dark cloud to the North but although the cloud thickened and cirro-stratus veiled the sun, it was with us all day in some way often with well marked 22 degree halo. Our course lay first up a rock-ride scramble, then on ski for a half mile up a snow ridge to an outcrop where Nigel collected schists. The glacier appeared free from crevasses even though there were it pushed out onto the sea-ice. We crossed the glacier for 4.5 miles in two hours, even though I was worried stiff about a wind which kept coming and going, sometimes from the North, sometimes from the west and picking up whirlies from windscoops and blowing drift off Mount Edgell. It all came to nothing and my worries were unnecessary. We went up around the west end of Pinnacle Ridge Nunatak, having to rope up across the crevasses to a 'station' behind Pinnacle B in a wind scoop, again with an ice lake in the bottom and a contraction crack into which Nigel put his foot. I fixed up my ski binding while Nigel collected some specimens but we left fairly soon as we were a long way from the sledge - 6 miles in unpredictable weather. Rocks were mainly 'Basement' type with patches of iron red oxide and bright copper green. A really wonderful cliff. We hurried back, roped across the crevasses which were well bridged here but open further down, and ski-ed straight down onto the glacier. In two hours we were back at the first exposure, where we drank a thermos of tea - very welcome! Then collected a few more rocks and so down to camp. The sac weighed about 50 lbs by now. Nigel showed me glacial pluckings and striation and collected a greenish rock, Epidote I think.

I tried eating snow today but it definitely leads to more thirst. At the camp all was well but Dean had chewed through two lash loops in an effort to get at Popeye, and Nun's first pup had arrived. I fear many of them will die for it is a cold night and she has only a Nutrican box for a kennel, which she readily took to. We hear squeaks as new ones arrive... We had a full supper of curried pemmican and cocoa and feel much better. All set for a good night's sleep... Now we have 7 days porridge and 5 days pemmican.

October 14th was an even longer day. Splendid day but very tiring. Reached the Cape Jeremy exposure at 10.00 pm. Now (as I write) it is 01.45 am. So will add full notes tomorrow. Nun had at least 5 pups but all died soon after birth. She vomited at mid-day but still pulled and ran all day long! Many dog fights and much trouble. Came via Powder Islets for a total of nearly 23 miles (total distance to date a little over 192 miles). Weather varied from veiled sun to low stratus and snow. It is fair

now but a gusty southerly breeze. We now have 6 days porridge and 5 of pemmican but the depot is only 6 miles away. We had a bad start this morning trying to sort Nun out and so on then half a mile out remembered some specimens Nigel wanted so went back for those. However, eventually away by 12.45. Made a halt between Rhyolite and Powder islands and then swung much further out into the Sound than before, taking bearings as we went. Reached Powder Island at 16.45 having come 12.6 miles and crossed several cracks wider than when we came (first). By this time visibility was two miles with snow falling. We could not see our objective but I very much wanted to push on even though Nigel didn't. He kindly came on and so set my mind at rest. As we moved North visibility improved. We arrived here much exhausted, but it had been a good day, and we are, I think, only about 7 miles from the depot... Nigel had much trouble with his dogs, especially with Dean and Taffy for Dean kept on attacking Taffy who would keep swinging off acutely to the left. I could not fathom why. The treatment seems to be immensely patient, sorting out tangled traces and starting again. Many of the dogs were bloody by the time we reached here. It's grand to be within an easy day of the depot!

From this camp next day they again did a roped excursion to visit the rock exposure above the camp. It was poor light for definition and in one place they got onto some dicey ice with cracks in the surface. "A very narrow crack was all that showed of an enormous hole. It was almost a whiteout. The ice seemed to be rolled over a buried rock bar and had some heavy crevassing with little surface indication. At the exposure Nigel collected rock specimens, took photos and built a small cairn. He dropped a glove down a slope. Luckily we were able to recover it - a good reason for wearing glove harnesses. We got back to the tent at 16:00 hours over a marked trail and in better light. Had lunch, did a few jobs, and fixed up an aerial. Looked at the exposures in the cliff above us - flat sheared blocks, very smooth and completely unapproachable. Radio went well, Paddy reading us '5'. and clear. At nine in the evening we decided to move. I led out for the first 2 miles then Dean did the rest. We are back in the little bay of day 21 in gathering gloom. The surfaces were soft and for a running man an occasional break through. We covered nearly 5 miles then had a splendid supper and ready for bed by 02.00 in the morning. We both have conjunctivitis with stinging eyes, presumably an early stage of snow blindness."

Influenced perhaps by the morale boosting activity he praised Nigel as they reduced to half rations on the next snowy lie-up day "I begin to understand why Nigel always uses pea flour, onions and potato powder so sparingly, for we have had 1000ccs of fluid with the usual amount of thickener, and hardly noticed the half pemmican. I'm learning about economy of rations and general tent management, more than at any other time".

At their camp on the sea-ice edge a cow seal had pupped close to their tent which afforded much interest and was perhaps the youngest baby seal to have its tummy scratched by humans while its mother looked on askance. They did two day trips from here to rock exposures, one midway between Mount Guernsey and Mount Edgell. Avalanches fell frequently from Mount Guernsey and a whole block of ice

cliff had fallen off the island by which they were encamped on their return. Six weeks out on October 21st the weather was splendid but cold for the season falling to below zero that night. While Nigel climbed up alone to the exposure, a hazardous escapade, as Henry stayed with the dogs, the summit came out of cloud described as "breathtakingly beautiful and unassailable".

They had been out their allotted time now and I read that my enquiry on the evening radio schedule as to their food supply situation "annoyed Nigel very much". I felt my responsibility as party leader to know that they were faring alright and was very conscious that the summer survey journey could not get away for a few days after their return as Henry was included. He had a prickly temperament indeed. However, short rations encouraged their return to the depot at Mushroom Island but it took them 4 days and was not easy as they got tied up in bergs separated off the Ice Shelf, stuck in cracks in the ice and crossed many hair-raising pressure ridges. On October 24th after a 23-mile day they won through to the depot with much relief and feasted on double rations with multiple extras. I had left them a note here as to the route back and where the Argentine refuge hut was placed on Terra Firma which they reached the next day finding it with difficulty because my description was apparently wrong. Refuge huts always acted like a secure magnet to Nigel. To Henry it was a depressing sight having an air of abandonment and no so warm as a tent which he would have preferred.

Unfortunately it was not just for the night. The weather was typical for the area - poor visibility but winds not too strong and most parties would have probably moved on but they suffered irksome delay for three days Henry willing Nigel to move which they finally did on October 29th but only for 1.3 miles. Sis got off and ran back to the hut where they found her lying on the roof eating scraps of blubber. Poor Sis had caused much trouble in recent days and been kept as punishment on a short lead. She preferred freedom. The visibility had clamped down and they did not want to trust to magnetic compass directions in the vicinity of these igneous rock islands so they lay up here again the next day a depressing situation also for poor Sis, not fed for the second day as punishment and she exacerbated her fate by chewing through her trace so Nigel trussed her up between the tent walls. Happily the trials of the journey ended on a very long day of forced sledging on October 31st, their 52nd day out. Visibility was not good but Henry forced Nigel's hand. When Red Rock Ridge was glimpsed through the mist they packed and left. The sledge overturned after 50 yards and heavy snow began but the sun broke through again by midday. Henry ran ahead making a trail which Dean eagerly followed then took over the lead. They sledged for 9 hours stopping at Red Rock Ridge for a cup of cocoa and some food, admiring the penguins and Snow Petrels and seals, crossed Neny Fjord and made it home to base at 22.45 and welcomed by everyone "...a most excellent run, very pleasant and surprisingly, not tiring". It was 38 miles. They had done in all 332 miles in 52 days, not that high average distance was the goal but geology. Neither Henry nor I appeared to have recorded the weight of specimens they brought back but at least 200 pounds and carefully labelled and annotated. Henry as doctor had not had to deal with ailments worse than partial snow blindness, sun-cracked lips and a sprained ankle

but hopefully brought back useful physiological measurements also. And by his character he influenced the outcome of the journey.

The Summer Survey Journey

Traditionally, in the heroic era anyway, the main journey of a polar expedition had all the drama of unfulfilled objectives in spite of meticulous planning, due to some major disaster, loss of a sledge with its driver with all supplies as in Mawson's desperate journey of survival. Or the most dramatic tragedy of all polar story, the heroic deaths of Scott, Wilson and Bowers trapped by a blizzard in their last camp just 11 miles from One Ton Depot, having reached the pole but second to Amundson, and leaving Evans and Oats dead on the way back. The story told by Apsley Cherry Gerrard *The Worst Journey in the World*, is among the most moving literature and rightly raises these characters to icons of fame, partly for the reason that in spite of Scott's meticulous planning of depots and support parties things did go wrong through no real fault of his, even before they reached the Ross Barrier. The weather turned an average of 20 degrees F colder than anticipated for March and their paraffin ran short due to unexplained evaporation from the stoppers to the cans. Also there may have been insipient scurvy affecting them as it had for Shackleton in 1903, nearly killed Edgar Evans but for the supporting care of Lashley and Crean who hauled him back a sick man over hundreds of miles from their furthest South in support of Scott's team.

This survey trip of ours was not remotely in the same league although some of the unknown terrain we traversed was equally hazardous, our dogs did most of the arduous work, our rations lasted as planned (though we eked them out in case we needed them for longer and felt some pangs of hunger at times) and to prevent scurvy we had bottled orange juice concentrate rich in vitamin C introduced to the rations by FIDS. We suffered no serious injury – just the solar radiation burns to faces and minor snow blindness. We covered the planned circuitous route to fill in a good part of the empty space of that part of Grahamland between King George 6th Sound and the Neny Trough. It was 420 miles in 59 days, an average of only 7 miles per day, the same as they managed on the BGLE journeys in 1935-37, a slow rate due to weather and surfaces and the need to stop for survey halts, the prime objective, whenever visibility was reasonable, which were rare occasions. Henry, Pete F and I were all now accomplished dog drivers. The three of us with a team each and loads of up to 1250 pounds travelled in the most economical way possible for dog sledging, that is to say about 80% of the load being dog food, 10% man food and the remaining 10% of non-edible fixed weight (tent, pots, ropes, shovel, ice-axes, radio and battery etc) spread between the three sledges. Experience had impressed on me the importance of keeping sledge weights down to avoid relaying loads. In this we were only partly successful. In some soft snow you would bog down an empty sledge. On hard neve and ice the dogs could trot towing a 1,000 pound load. We nearly always ski-ed beside with a waist line over a handle bar of the sledge but in spite of precautions we were very luckily watched over by Providence that no-one, not even a dog, was lost down a crevasse although many fell to the length of their harness and trace and we had Angus to thank for the Greenland modification that prevented the hanging dog slipping out of its harness. We had radio which was to all (particularly Henry) a morale boosting link with family and loved ones at 'home', contact with those at our base and with

SecFids office in Port Stanley, which last could be a distracting element when questions were asked as if you were sitting in an office as he was. But importantly, the radio time signals were valuable in rating the half chronometer pocket watch kept warm in a chamois leather pouch beside one's tummy, upon which the accuracy of longitude observations depended.

I give Henry's diary, generally better in description than mine which was more logistic, curt and topographical. (I hope later to get sight of the late Pete Forster's diary too) Henry only had a week before our departure to recover and write up results from the geology journey and was disgruntled that he had no more time. With all we tried to accomplish in reports and observations we were behind and lacked sleep. It was already late in the season and thawing with slush and cracks in the sea ice.

Day #1. Friday November 7 1958

Thirteen miles covered. I don't remember when I last made an entry in the diary, but will say no more about the last few days except that it has been a frantic rush and as usual I delayed departure until 14:00 hours. The day began flat calm and sunny with scattered clouds and a general thaw. A strong wind began to blow from the NE at midday and has continued ever since. It brought high stratus and stratocumulus, and cloud still covers everything. At 18:00 the temperature was above the thermometer scale, estimated at 43, and at 22:00 it was plus 37. After an uncontrolled and hectic start we made rapid progress on wet, crystalline, and in parts, slushy snow to the West end of Neny Island and across to Red Rock Ridge. Peter Gibbs led, then Pete Foster, and last me.

Though the ocean edge of the sea ice was at least twenty or thirty miles away at the West end of Neny Island, we saw Snowy Petrels and two Skuas up in the cliffs, and a seal basking by a floe. We crossed two cracks, both narrow but probably very long, running from North West to South East from the end of the Island. At about a mile from Red Rock Ridge the surface changed from snow to ice with a thin covering of water. I wondered if this apparently excess thawing was from radiation from the cliffs. We stopped at the penguin rookery where we took photos. An estimated count gave 1500 to 2000 birds, most paired and with most nest sites taken. Then on to the Refuge Islands - our most Westerly point - crossing a wide crack to gain access. Many seals were about, and skuas fed off scraps of seal meat after feeding the dogs from a cache here.

For the last three miles the surface was blue ice with thaw water all over it, in some places one or two inches deep. Wearing our soft canvas mukluks we all have wet feet. Evening spent feeding, sorting loads, and Pete G surveying with the plane table. The others have turned in now so I will write more tomorrow. The wind has dropped away. Looking back Adelaide Island has been visible all day. Distance 13 miles. My load 654 pounds.

Nigel, Keith and Bryn gave us a good send off I had a narrow squeek crossing a crack at these islands which turned out to be about 8 ft wide and I nearly had the sledge in.

Day #2, Saturday November 8 1958

26 miles today. We reached the Terra Firma islands. A glorious day, beginning dull and cloudy and with a strong Northerly breeze, then clearing and leaving brilliant sun shining between fleecy white clouds, and a little later from a clear blue sky. Late in the evening it clouded over but remained warm. Temperatures have been between 34 and 45, thawing like mad. A strong wind blew out of Windy Valley as we passed, but only lasted for a mile. We left camp at 1045 for I was slow over breakfast. Ran straight off the other side of the little island. A mile to the South we had some difficulty crossing a crack but what a difference Caesar makes as lead dog, and in any case we approached the thing in a far more confident manner than during my last journey.

We made two survey halts somewhere off the Bertrand Ice Piedmont where I made sketches for both surveyors. Great to be useful for a change⁴³. Both halts took quite a time but it's a pleasant way to travel. By coming round the West side of the North Islands we avoided nearly all difficulties with cracks and came straight here, camping on the ice foot a little way below the Refuge Hut.

Surfaces have been uniform wet, crystalline snow where the sledge sinks in about an inch yet the dogs hardly ever break through the surface. Loads about 824 pounds and kept up all round very well. In fact the loads were just about right for everyone to balance nicely.

Saw several Skuas at the Refuge islands, two Black Backed Gulls, and I think a Snow Petrel. Seals are out on the ice all over the place. I lost my temper a bit when we reached here but fortunately got over it soon. Had roast beef we brought for supper and took two tins of Chorquican from the refuge hut. The dogs worked very well and Angus, though still lame, seems better. I removed the stitch last night. All very tired tonight camping at ten or eleven in the evening. Measured fat thickness on all, and we raised WWV on the radio for a time check.

Day #3. Sunday November 9 1958

We reached Mushroom Island today, the third day out. The weather is worse with occasional snow and temperatures around 42F degrees until tonight when it dropped to 32 degrees. An occasional wind from the North switching this evening to the East. Cloud began high then lowered as stratus sheets came in with snow and sleet. Now the cloud is lifting again. Surfaces are much the same, slippery well packed thaw snow with the sledge sinking up to an inch at times. The dogs have done well and Angus is a little better. Sledge loads Pete in front with five hundred and seventy pounds, me middle man with eight hundred and fifty, and Pete F at the back having an easy time, reading and lying on a lilo at halts, with 670 pounds. All seems well balanced for speed. We covered 16 miles for a total of 55.

⁴³ Henry's panoramic sketches were a tremendous boon to us Surveyors in identifying features which were given numbers, later transferred to photographic panoramas in the office.

We picked up the Argentine skis on the way past - the broken ones we had seen going North the last time - one with an interesting soft binding. Camped about two hundred yards NW of where Nigel and I had camped. The crack in the sea ice was too wide to cross comfortably with full loads, about four or five feet with slush on either side. While Pete F cooked supper Pete and I brought the depot out across the crack using the same ice tongue we had used on the geology journey, including thirteen cans of dog food, three of man food, and eight gallons of fuel. The dogs feasted off a cached seal.

Not much more to say. Pete is out in the pup tent plotting his traverse - Pete F slept out there last night. We ate well on the rest of the beef and some Charquican and feel fine. Tried to contact Base by radio with little success. We shall stay here tomorrow while the surveyors work. It really is a pretty place. Much snow has melted since I was last here; several gulls around and seals on the ice. A snoozy evening and now off to bed at midnight.

Day #4. Monday November 10 1958

The thaw persists with temperatures between 37F and 39F and complete cloud cover deepening as the day wore on. Sleet showers most of the day. We stayed at Mushroom Island for there was much to do. Started with a sun azimuth sight, then after a quick lunch Pete G and I surveyed the island whilst Pete F took angles on the high points and climbed them to make a sketch. We then traversed round the island in half mile legs for ten stations covering two and a half miles. From this he made a 1/10,000 plane table map. (The island is about $\frac{3}{4}$ mile long and $\frac{1}{2}$ mile wide ice capped with ice cliffs all round except on the North side where some imposing (rock) cliffs rise sheer for 200 feet).

During the traverse we came on some very wide cracks much worse than when Nigel and I were here. Pete takes them more boldly and with more confidence than Nigel, though Babe fell into the water at one. The cracks prevented us from taking a seal for the dogs. The ice must be moving, for the crack where Babe fell in was scarcely visible before, and the crack which gave us trouble before was tiny today. We came across our old tracks just visible at the far end of the island.

On the island summit Pete F had found sea shells and a dead Tern, thawed out after being frozen into the ice. Four Terns and a number of gulls visited, together with a penguin, though how he got here I do not know for the ice edge is miles and miles away. The radio was still playing up. On Bryn's suggestion I took out the two resistors he had put in but with little improvement, so I put them back again. I'm on cook so will turn in early. A bit of bother because Wol got off.

Day #5. Tuesday November 11 1958

Here we took on board the depot of 1150 pounds being about 3 weeks supply giving the heavier sledge loads noted.

Weather began fine but clouded over later with intermittent snow showers. Late at night heavy sleet began but now in the small hours all is clearing. Temperatures again up in the thaw level. Loads at the start of sledging were even between the three sledges, but at the end of the day were changed to Pete G eight hundred

and fifty while breaking trail, Pete F twelve hundred behind him, and me about twelve hundred and fifty. Surfaces were unchanged or if anything a bit more sticky.

We broke camp at ten thirty. An interested penguin visited so they are obviously coming in over the ice. We ran due East towards the Northern end of the Wordie Ice Shelf. On the North side was an interesting glacier foot looking very regular in appearance. The course became complicated in the last two miles for we ran into a maze of enormous tabular bergs. We sledged up a drift ramp onto one of them. From here we made our way along the berg top then crossed a shallow but steep dip onto the next, then camped close to a rift between the bergs filled with pressure ice and brash, by a ramp leading down into the rift. We would have liked to sledge onto the Shelf proper, but with an area of pressure to cross we thought it better to wait until morning. Today we covered 14.8 miles.

Pete checked the route ahead on skis. The pressure ridges have changed since Nigel and I were here, but there is a route through, tricky but OK. We went off ski-joring without a sledge to take a seal in the rift. The seal was eight feet six inches long, six feet two inches in girth, a female Weddell, not pregnant. Both the dogs and the men had seal steaks for supper. Delicious. The dogs always have an argumentative night after a seal meat feast. Pete F appears to have a lot of work to do on his team to settle them down.

Day #6. Wednesday November 12 1958

Today we crossed the rift and climbed up onto the Wordie Shelf. We are now camped right on its edge. We came across with much lighter loads without too much difficulty, though the course zig-zagged over and between slush pools and wide cracks. From this area we sledged straight along to the foot of a drift ramp onto the shelf where the ice cliff is about sixty feet high. Whilst Pete and I went back for the remaining ten boxes Pete F began to pack stores up to the shelf and erected the tent. Tonight we have twelve more boxes to come up and the job is done.

The ramp is very steep, sometimes almost forty degrees, but each team was able to pull about two hundred pounds up using the old Soda Bread Slope method. Before leaving the last camp and in beautiful sunshine we took sun shots for azimuth and longitude, and a theodolite round, and sketched the surrounding topography. Some photos and cine were done. We did not leave camp until half past one. The thaw continues with the same temperature range in full sunshine until late in the day. No wind. At last we made radio contact and updated them on our progress. Base is thawing out and draining well, but the ice at Base Y is over five feet thick with hard ice from frozen thaw water on top, just like last year. I wonder whether we shall get out in the summer?

Ahead of us stretches the Shelf, undulating into the distance, with here and there an ice mound and here and there belts of heavy crevassing. Beyond that glaciers leading up to the plateau. To our South West is the wide and heavily crevassed Fleming Glacier. With all the climbing today we covered only three quarters of a mile.

Day #7. Thursday November 13, 1958

Low ragged stratus and strato-cumulus hung over us all day. Temperatures are still high; a persistent thaw is this one. We left camp after the two Petes had carried the remaining boxes up, with approximately even loads, and made course for the South end of 'Three Points' Peak. During the day we crossed eight rifts each one better filled than the last. They were at first up to one hundred yards wide but later much less - about fifty yards.

After one of them we waited for forty minutes in heavy snow with nil visibility. I had a short snooze lying on the sledge. The rifts are running roughly North South parallel to the lines of transverse crevassing in the Fleming Glacier. Towards the end of the day we came into an area of ice mounds, heavily crevassed on the seaward side but not so on the mainland side. As we entered the area we were obliged to detour three quarters of a mile around a rift with vertical sides, sixty feet deep and sixty feet across, and apparently fresh. We ran on into the hummocky area and made camp with a line of broken ice ahead. Pete thinks this is a beginning of the disturbance due to the Fleming Glacier as it joins the Shelf. From the camp the view of the 'Ronne' Glacier has opened right out so we can see up to its head and the nunataks and rock walls around it. It's heavily crevassed especially at the Eastern part of its mouth. Though the dogs pulled well I must work on making them stop when they are told! We all have wet feet and have had for days now. It's impossible to get them dry, but it doesn't matter too much when the temperature is so warm. Most unusual supper by Pete F; pemmican seal stew curry followed by seal meat with bacon and separate serving of reconstituted dried potato. Today's distance:9.3 miles.

Day #8. Friday November 14 1958

I was cook for the day so woke at seven thirty feeling whacked, to find heavy snow falling and nil visibility. Was glad of the extra time in bed. It didn't look fit for travel until after nine when we began breakfast. Intermittent snow lasted until late afternoon when the cloud began to break and the surveyors were able to take an azimuth observation from the evening camp. We started with even loads and made course towards the North to go round and between various ice mounds. Surfaces were sticky wet snow over hard blue glacier ice or neve. Very hard work for the dogs. In something of a whiteout one of Pete's sledge runners dropped through a crevasse, tilting his sledge right over. We were in a rare tangle of crevasses some ten or more feet wide and with no surface indication at all. Going back to his sledge without skis Pete dropped a foot through and all but disappeared. All sledges have trailing ropes so we can move from sledge to sledge in safety. We were obliged to unload, then the two Petes spent some time probing a way out while I grew colder and colder since a strong breeze was now blowing from the North West.⁴⁴ It didn't look too good for pressing on but after a bite of lunch we set off again towards the 'Ronne' Glacier and soon ran out into an open

⁴⁴ My diary mentions a 30 ft bridged cavern into which Peter F fell to his waist luckily the crust holding.

flat plain where we travelled two miles before making camp in a position from which useful survey of the glacier can be done. The crevassing in the mouth of the 'Ronne' Glacier is very, very heavy. The best possible route seems to be on the West side, close up under the Knob. (This assigned name to Ronne was due to my deduction as to his route North to base from the Wordie Shelf Ice). Saw two Snowy Petrels where the crevasses were. Everyone busy now about different jobs. I made a small paraffin light like the one I made on the Faure journey. The dogs are OK but Coco's harness must be taken in a bit because he could easily fall out if he fell into a crevasse. We have decided to go on short rations by making an eighth day out of a seven day box. A sound idea but I'm hungry. We are carrying eleven weeks dog food and eight weeks man food, so we reckon on saving man food now in case we need it later - we have a long run ahead. I'm pretty tired these days and certainly ready for bed. Wind and sun have cracked our lips which are a nuisance to us all.

Henry's craving for food may have been worse than ours because he had been away with Nigel the previous 2 months and on short rations latterly. But also the standard ration of about 3500 calories was well below what we were expending on days often up to 18 hours long. Considering this Peter Forster's willingness to abstain from food later was the more remarkable.

Day #9. Saturday November 15 1958

Lie-up Day. We've been in a whiteout all day under low stratus cloud. Temperature ranged from thirty six to twenty six and on the whole it has been decidedly colder with a breeze from the North West. We stayed in camp hoping for good survey light so we could fix the points in the 'Ronne' glacier. During short breaks some was done, but not as much as hoped. We weighed the dogs. All have lost weight even in these high temperatures and despite the feeds on seal meat. I very much welcomed the sleep, feeling worn out. We sorted out the kitchen boxes a bit, then Pete rustled up a fine bacon and mash breakfast. Supper was out of a new meat bar box, but I'm still very hungry indeed. A successful radio sched with Base and exchange of letters.

Day #10 Sunday November 16 1958

A warm morning with the thermometer at 45F on waking. Not until early afternoon did the cloud break up sufficiently for us to leave. In the afternoon a North West wind began to blow and has been blowing ever since at ten to fifteen knots carrying low drift. By evening the temperature dropped below freezing for the first time in the day. We waited all morning because of snow and whiteout. Having done all the survey possible in the time available we left at 13.00h moving West and then South down the shelf. The surface was at first slippery with a covering of fresh snow but as the temperature fell during the afternoon the friction increased. We crossed a shallow rift with what looked like sea ice pressure ridges in the bottom, but obviously it could not have been sea ice. Here Alpha got off and we waited a while to get him back. Sleet began with whiteout, so we made camp in the middle of the Fleming Glacier not far from an ice island and with a belt of broken ice ahead. A splendid supper. Managed to save one meat bar block. Pete

is reading *The Cruel Sea* and can't put it down. We other two are on our way to sleep. Today's mileage 11.5.

I had no lunch intending to save biscuits and chocolates as Christmas presents for the others but will power failed at the last moment. I wish I could do it. For some reason Bessie chewed through her anchor line. She should be spanned separately on a chain because she keeps doing this. Alma is her old, sprightly, pert, inquisitive self, and Angus a chuntering old fellow. They each have a distinct, different character. but they still won't stop when I say Aaaaaaah!

Travel so far on the Shelf has been easy going over flat snow and good surfaces, gently undulating between the ice mounds. If all goes well we should be on the Plateau in a week. (But that was not to be. We were stuck here six days; it snowed and drifted heavily and with overcast sky there was no definition in the surface. Like being within a ping-pong ball when it was not drifting heavily I was reminded of the party on the plateau – Dougie Mason and John Tonkin I think, who expecting another party to visit sat waiting at the tent entrance watching a black spot that never appeared to get any closer and when after a while one of them got out of the tent to get a better look, he saw that it was a discarded matchbox just two metres or so away in the snow. In between strong drifting the temptation to move was suppressed as there was no seeing the rifts up to 60 feet deep or any crevasse indication. Our average mileage soon dropped below the required 8 per day. The only comfort was that the BGLE had similar hold-ups in this area and so did Bunny Fuchs and Ray Adie. At last on the 23rd we dug out and moved doing 12.7 miles and passing within 6 miles of the Kinnear coast line. It was as well that the visibility was reasonable because the view taken later from space showed impressive rifts to find a route through.

(Insert aerial photo p28 of Portrait of Antarctica)

We broke camp with much digging and effort and the first sledge was away at 16.20. We made course almost due South and without any trouble soon passed through the belt of rifts and crevasses thrown up by the ice island in the centre of the Fleming Glacier. It was as well we had good visibility for we were on ramps two hundred yards wide between deep rifts. As we sledged on things became clearer and at nineteen hundred hours a survey halt was made, but then a breeze sprang up, cloud moved in from the West, and the mountains disappeared with the surface definition.

However, we sledged on past the East side of another series of ice islands towards the Kinnear Mountains. We could not see exactly where our Pass should be but saw the West side of the South Bugge Islands and a little later the North Island, then Mount Guernsey and Mount Edgell behind it coming into view. The Shelf continued in its mildly undulating way though at this end the waves seem longer. We camped at 21.00 hours about three miles short of the first rise of the Pass, where belts of crevasses can be clearly seen. A gull flew over us on its way South, and another Gull was heard calling as we went to sleep.

Surfaces were alternating glare ice with shallow drifts. Hard work for the dogs, but as soon as the temperature fell they improved enormously. Cocky was all for pissing on everything so came back to the sledge for habit correction. Made a long wall of my boxes in the wind line but didn't overturn the sledge. Was able to dry out my sheepskin and Lilo completely in the sunshine today and expected, and had, a comfortable night.

Day #18 Monday November 24 1958

Sun was on the tent in the early hours but then high cloud spread slowly across the sky, thickened and lowered as the day went by, and by mid afternoon snow began to fall. Most of the day above freezing. We moved camp off the shelf ice and a couple of hundred feet up the slope towards Prospect Pass. Before leaving, the two Petes took azimuth and longitude by time and hour angle, theodolite and compass rounds and I did a sketch. The last three miles of the Shelf dropped gently over shallow undulations to a very low point where the rise began and where we passed between two crevasse belts. We were making for a prominent nunatak to the West of the Kinnear mountains.

The dogs pulled full loads well; so far the Moomins handled 950 ponds or more. The sledge sometimes bogged in soft and sticky snow but not badly. Here the snow is quite deep. After coming only half a mile up this slope we were obliged to camp because the heavy snow caused a complete whiteout. The slope must be heavily crevassed since we could see signs of them on both sides but they are all well bridged at this part. Good reception on the radio tonight. Whilst the Shackleton got into Hope Bay without difficulty the ice in Marguerite Bay and Lallemand Fiord is as solid as ever and Deception Island and Admiralty Bay can't yet be reached. What hope of the ship getting in, I wonder? Quite a discussion about it this evening.

We need early or late traveling to take advantage of the frosted surface and so hope to be off early tomorrow. It's very late now so must pack up.

Day #19 Tuesday November 25 1958

A fine but very strenuous day. (Especially for the short distance of 3.4 miles 'made good' due to relaying). Sun was shining on the tent as we ate breakfast at 06:45. We left a depot of twelve Dog food boxes and one of man food then set off at 09:00 with Pete ahead for his was the lightest sledge. Eight inches of soft snow covered yesterday's accumulation so the dogs had a hard day pulling. In the soft snow we could only make 200 yards at a time so we soon dropped off another six boxes between us. Even then progress was stop-startish and the Admirals in the lead just wouldn't keep pulling whilst driven from behind. So one man had to stay ahead of the leading team, leaving two people to manage three teams.

We tried different systems. First I went ahead of the Admirals whilst roped to the centre trace, while Pete F started the Moomins then dropped back to his sledge. This was varied by roping the Moomins to the back of the lead sledge. But without a driver, when the Moomins stopped they wouldn't be restarted. Then Pete went ahead on a rope, calling up the Admirals. I started his sledge then went back to

start mine, but the Admirals then didn't have enough encouragement from behind. Then we tried Pete ahead, I started the Admirals as Pete F started the Moomins then drops back to his sledge, but the Moomins quickly caught up to the Admirals and then stopped pulling. Last we tried one man starting the Admirals, running back to start the Moomins, then catching up to the Admirals and switching to drive them.

By the time we had tried all this out we were on easier slopes anyway, and Pete was able to keep the Admirals going from his drivers' position. By the end of the day we had covered six and a half miles and climbed 900 feet. We pitched the tent and the surveyors made a full survey round. Then Pete and I with an extra two dogs each from the Spartans went back for the depot. I tried Bessy leading out along the trail but without success. too much following I suppose. We reached the depot in one hour and got back in two arriving mid evening. It was much better going on a now frozen trail and I rode all the way up, making the total load 950 pounds. Snow didn't ball up under the runners which stayed clean. So much to note but no time. I'm on cooking. The sun has just left the tent at a quarter to midnight. Weather 25 to 31 degrees all day in a light breeze.

Day #20 Wednesday November 26 1958

Another lovely day; some high cloud and fifteen hours of sunshine. Temperatures between twenty and thirty degrees with a strong breeze from the North. We left camp at 09:30 with full loads but fifty yards was enough to tell us we must depot again, and we did that. Pete F and I had a bit of a jiggle about. The dogs were listless at first and so was I, but they eventually settled down to good pulling. Surfaces were a foot or two of soft snow making heavy going. To run behind the sledge on the flat was far too exhausting but once we slowed down on the slopes things were better. We climbed about five hundred feet over long undulating snow ridges and made camp within easy reach of the crest of this pass which is the nearest to the Kinnear Mountains.

I stayed here to set up camp while the other two borrowed Cocky and Eccles and Bessie and Coco and went back for the depot. By this time it was cloud with a breeze. I found today very heavy going. Traveling over deep soft snow is tiring in the extreme. Putting up camp alone is a long and tedious job, with meal preparation tacked on the end.

Johnny is lame after a beating but I can't find the cause. Pete F had sore eyes from the sun so he took a Boric Acid eyebath. Very tired. Off to bed early. Today's mileage 4.3. (I too noted that the effort expended for the short day's run was considerable. I deduced also that this pass was the one that Steve Stephenson had used 20 years before).

Day # 21 Thursday November 27 1958

Another fine day but colder with a strong breeze from the North. Cloud banks of strato-cumulus blew over all day and then low stratus and drifting snow began; it is now most unpleasant outside.

We left camp at 09:00 and in two hours reached the summit of the pass 750 feet and moved onto a plateau-like stretch behind the Kinnears. We dropped loads, ran back to the last camp in an hour, and in another hour and a half were back at the top depot. What a difference a made track makes, and the snow was more slippery for the lower temperature. With full loads we carried on for another mile before starting a gentle descent. The country is plateau- like; long, rolling snow plains with nunataks and snow peaks lifting out and wide vistas over to the East. (The top of this pass was 2,500 feet and from it we had a view of the Traverse Mountains and the range on Alexander Land).

We made good six miles (total 9 miles for the day) with loads varying from 400 to 650 pounds on the depot runs and then forward with loads between 800 and 1000 lbs.

Johnny is still limping. Pete F's eyes are much better. Radio sched frustrating. We could read Base easily but could not get out.

Day #22 Friday November 28 1958

We lay up all morning in a Northerly blow with drifting snow and a complete whiteout. About mid afternoon things began to improve. First the snow stopped, then the cloud lifted and mountains became visible, then in the very late evening the sky cleared from the North and the sun came through at about midnight. Temperatures remained distinctly colder between 13 and 20F.

We broke camp and set off at about half past five. The surface was worse than yesterday, cloggy and with tremendous friction. Mine was by far the heaviest sledge. After the first mile, which was pleasantly down slope, progress became erratic on a slight rise. We made constant halts to adjust loads, to take breathers, and once for a survey round, until after only two miles had been covered we decided to stop for the night and made camp at eight fifteen opposite the head of the Eureka Glacier.

While Pete F stayed in camp Pete G and I took an empty sledge about two hundred feet upslope to a rock exposure where we took specimens for the geologists. We looked East over the Prospect Pass, well named, for the view down to the Sound is wide open, and over long, rolling plateau country with here and there rock nunataks and ice and snow domes; the country over which we hope to go tomorrow. Whilst examining the air photos Pete dropped the package over a very steep drift where it took some little trouble to retrieve them. This place would make a fine air depot site.

We grew cold, so hurried back to camp and supper. I was cook, but Pete F had almost finished it. He had all the Spartan harnesses to adjust because the back straps were too far back and almost hobbled the dogs, so we all tucked into that job. His eyes are sore again.

To bed with an evening sun shining from a clearing sky and everything looking lovely outdoors, though a strong wind is blowing up from the East.

Day #23 Saturday November 29 1958

Though today was a really heavy slog over soft snow surfaces we have made better miles over the top of Prospect Pass. High cloud had been about all day, but as I write at midnight the North wall of the tent is in full sunshine and not a cloud in the sky. The midnight sun at last. Though it is much colder at six degrees the sledging made warm work under a hot sun.

The view has not changed; gentle ups and downs over typical plateau, and we have seen down the Pass, over the Wordie Shelf, past Mount Balfour, and to the 'Ronne' Glacier and the Knob. Amazingly, no trouble so far with crevasses.

My dogs pulled badly today but with constant adjustment of loads we kept going. Once the sledges stopped it was exceedingly difficult to get them going again due to snow clogging under the runners. But another fifty miles should see us about half way. We are nearly at the point where we turn North. I repaired dog harnesses and found, I think, the fault in the radio so we should get a message out tomorrow.

We heard calls from the ships. It's such a heavy ice year I'm worried about getting out this summer but there is nothing to do but wait and see. That the ship reached Hope Bay so long before John Heap's estimate is a hopeful sign.

Pete F's eyes much better for a change of goggles. Sunglasses must have side protection. The redness always seems to affect the sides the most. All our lips are rough and leathery. We are eating about 3500 calories per day; about 700 below ration and well below needs but we seem to survive on it and we must go steadily. Today's mileage 7.0. Sledges are all stored upside down for the night which keeps the runners clear.

Day #24 Sunday November 30 1958

Another lovely day with a veiled sun with haloes. Temperatures between 16 and 20 but we have been very hot with so much pushing to do.

We were up at 07:00 and away by 09:45; the sun had been on the tent all night. We have been climbing all day over many ups and downs to a present altitude of about 3000 feet. For the first part of the day all was well but as the sun warmed the surface ice and snow began to stick to the runners and it became a fearful job to start the sledge and keep it going. My team was listless at first, coping with only 800 pounds, but later in the day they perked up and pulled 890 pounds despite runners coated with ice and frozen dog debris. The Admirals kept well ahead all day, on excellent form.

We reached our furthest South at 69 degrees 39 minutes and turned North. The day was too heavy so we stopped at 16:00 and decided to switch to night travel. Nevertheless we made good distance at 6.3 miles. We are all tired out after days like this.

Day #25 Monday December 1 1958

We were up early and away by 04:00 under a heavy cloud cover but with a high base so the mountains were visible. My team made a sluggish start as usual. We

soon topped the Pass and saw ahead the Fleming Glacier and the mountains on its Southern side.

We have been sledging downhill most of the day but still the dogs found it hard going. We stopped at 12:50. The sky had cleared and we were in full sunshine with the surface softening and clogging. We spent the afternoon on survey matters and equipment repair, turning in later than intended with the sun full out and hot. We feel contented having covered 11 miles - the first double figure mileage in eight days.

Day #26 Tuesday December 2 1958

Another splendid day of 15.5 miles under cloud which cleared leaving us in bright sunshine. In the early hours a cold wind blew down the glacier with temperature around 6 but things warmed as the day wore on.

We were away by 03:30 - I overslept by an hour - for a slow start but then began to click back the miles, at first over soft snow but for the better part of the day over fast, wind-packed crust. We came across the glacier and through a chain of nunataks, then a long downhill finish. We are camped on the top of a steep 200 foot ramp which drops down onto the next part of the glacier. The scenery is magnificent with glaciers, rock peaks, and snow cols all over the place. Not what we expected of Grahamland. The next 50 miles is the most uncertain part of this journey because we are not sure of a route, but after that, from Mobiloil Inlet, it will be plain sailing on country we know.

A long survey halt (was made) en route and including sun observation. Fat thickness on us all tonight. I have not lost but the others have. Is it because I take more fluid or because I do less work! To bed, for a midnight start.

Day #27 Wednesday December 3 1958

Today's mileage was 9.5. We were up at 1:30 and away by 3:30 under an overcast sky with a threatening gusty wind and temperature of 19F. Soon we were heading up glacier into wind (with) gusts of 20 to 25 knots, carrying enough drift to make travel uncomfortable but not difficult. Later the sky cleared and sun shone for the rest of the day.

From camp we dropped down a steep 150 foot slope onto the glacier. It seemed we were in for soft snow and breakable crust but as we moved up glacier the surface improved with hard wind packed crust. Despite a steep rise we made excellent though slow progress. We ran up glacier about due East for about five miles. The chain of nunataks we crossed yesterday was remarkable. The pinnacles are sharp, the cliff faces huge and perpendicular, and the passes few. The glacier is a highway four or five miles wide, running straight up into the interior. To its North is a large mountain block with glaciers on all sides. A massif, the west end of another series of mountains, divides the glacier in which we are now camped. This arm has the plateau at its head. We are aimed for a col just East of a large mountain with a precipitous South face which was easily visible from the Wordie Shelf. We camped at 10.00 on a hard surface and since then have been doing

repairs and tidy-up. Survey and photograph rounds, then trying to catch up on sleep before the evening radio sched.

Little more to add. It is pleasant to be up early in the sharp cold, then to camp in mid morning under a high sun. Pete thinks if all goes well we should be back in Base by the end of the first week in January, giving us another 35 days out. We have full rations for 38 days and 45 as we are rationing now. We should find the glacier down to the north west side tomorrow. Pete F made more space for us all by sleeping in the pup tent.

Day #28 Thursday December 4 1958

Yet another splendid day, the thirteenth in a row, with 12.0 miles covered. Pete woke and switched off the alarm thinking I had heard it so we were late to start. We eventually left at 06:30 after a survey round and set course for the nunatak in the previous sketch. The surface was perfect; hard wind packed snow on which we rattled along, with few sastrugi. Here and there a patch of loose drift would cause a sudden drag on the sledge. It is for all the world like running along on wet packed sand and coming across patches of dry soft sand where your feet slither around without any grip and everything slows down.

A cold wind blew all day from the North East at about 20 knots carrying snaking drift. Temperature about 11 degrees with patchy high cloud. As we approached the Pass we came into an area where cloud formed on the upwind side of the mountains and disappeared on the downwind side as it blew out towards the Shelf. Pete tells me this cloud is called Orographic. When we reached the Pass it was in cloud so we didn't cross until it cleared. We sledged towards a Nunatak which Pete F suggested be called Anchor Nunatak because of a prominent snow patch shaped like an anchor on one face of the rock. Then over the Pass and mostly down slope at a great pace across a broad plateau expanse at the glacier head.

The glacier we want is on the other side of a chain of mountains up to 8000 feet, but we thought we could cross the chain over a steep raking col. We were soon climbing into mist so called a halt only a few hundred feet below the col and made camp at 12:30.

This is a magnificent camp site amongst sastrugi. Behind is the towering mountain and the col. In front the complete panorama from the plateau across the nunataks to Mt Guernsey and Edgell and beyond that the Wordie Shelf and Alexander Land. I think it the most wonderful view I have ever seen. As evening came on the cloud cleared and we could see our route over the col behind us.

The surveyors were busy for a while then radio sched with Paddy turned up a bombshell. SecFids wants us to evacuate Bases E and Y and cross the plateau to Johnston's Point by JANUARY 1st. This is just not possible, though Pete thinks we could travel up the eastern Shelf if we must. In any case we must speed up this journey and get back by early January. I don't know what I think because I'm so very keen to go home. Pete F doesn't like the idea of evacuating and he's right.

Day #29 Friday December 5 1958

Yet another grand day with practically no wind and with high cirrus. Temperatures around 15F. Around midday stratus formed around the mountains covering high land in mist, then cleared in the afternoon so we were in sunshine again. We left camp at 06:30 and with full loads tried for the col. After about half a mile it was clear the dogs wouldn't make it so we dropped half the loads and pushed on over very steep sastrugi. We soon came over the top where the grade levelled out. But though we sledged on over gentle up slopes we could not see over the top, so we dropped the loads and sledged back very quickly with all rope brakes on and the dogs pulling on their collars, to pick up loads left behind. I only went halfway down, for Pete's depot was much higher than the others since he had tried going ahead with a leading man on a rope.

We were soon back at the top and took on full loads, but by now cloud covered everything. It was not until we had dropped a few hundred feet down slope in nil visibility that we came clear of cloud and saw ahead a new glacier, just as Pete had expected. We were looking right down it to a prominent nunatak which we had already seen from the Shelf ice. In fact we were seeing right down into the meeting point of the Clarke Glacier. I find great difficulty to describe the feeling of elation, discovery, excitement when I see something new like that – it's a childish feeling I suppose.

Anyway, we sledged down several miles into its head and then made camp when visibility clamped again. Fed the dogs two food blocks each, the first extra since leaving Base. During the afternoon we made a full survey round with topo photographs. By this time we were in bright sun again with fleecy cumulus all over the place. Then the ever changing weather - cloud rolled into the glacier and we were in whiteout again.

Because of the change in Base plans we shall run in quickly now. The uncertain part of the route is past, so we gave ourselves a full whack of supper followed by a Gibbs meat pattie and chocolate dreams. We shall stay on full rations from here on if all goes well. Today's mileage 6.5.

A long radio sched tonight including a reply to SecFids saying why the plateau route was not practical for relief. The ice thickness at Base Y is increased slightly again. The ice around Cape Rey still holds fast with no sign of breakup. I do wonder what is to happen with the present ice situation.

Day #30 Saturday December 6 1958

Lie-up Day. The first since Day #17 over a hundred miles ago. Inside the tent has been muggy. Outside it is 22F in a complete whiteout. A light breeze has come up this evening. We waited all day, the surveyors working out their fixes whilst I'm afraid I did nothing except go out to feed the dogs and repair a few harnesses. The Moomins had pulled their pickets.

I've thought more about this relief business. My heart is set on going home. It would be a bitter blow if it was not possible, but we can do no more until we hear from SecFids on Monday. We ate extra well again today.

Day #31 Sunday December 7 1958

Another good day. It began cold, 11 degrees, with a suggestion of sun to come. We left camp at 08:05 and walloped away down the glacier. The 8 inches of new powder snow gave no trouble for it was light and feathery with hard pack underneath.

The Moomins started at full gallop - a splendid sight - down steeper slopes alternating with flatter parts, and soon we were into the unknown parts of this glacier not visible on the air photographs. At the corner of 'Armchair' Mountain we crossed some enormous hidden sastrugi, and then the glacier opened out and became much smoother. By this time there was only very high cloud and the hazy sun made the surface sticky. We stopped at 13:00 for an azimuth observation having covered nearly ten miles. For the rest of the day it was very warm and muggy.

A subsidiary glacier flows into this one from the North East, behind the big cliffs in the bottom of the air photograph. A fair amount of drift poured out of the mouth of this glacier even though we were in calm. And so it turned out. We set off again on wind-packed snow and very soon ran into a full gale, gusty wind and clouds of flying drift. We pushed on between gusts but it was not long before we were in an enormous crevasse field where all the crevasses were bridged, marked only by dips in the surface. While the two Petes went forward on reconnaissance I managed, in very cold planned stages, to whack on an extra jersey. They came back reporting we could push on between gusts, but the two back sledges put on rope brakes because we were on a slippery downhill traverse. And so we pushed on for about a mile but then decided it was not safe to carry on, So we made a drift camp where we are now sitting tight awaiting the winds pleasure. Perhaps it is moving the sea ice; a great consolation.

I've had a bad day. I left the camera tripod at the last camp and left my pocket hammer at the reconnaissance point. Very annoying. Today's mileage almost fifteen. From here we can see onto the shelf ice over the 'Ronne' Glacier and past the Knob. We are about fifteen miles North East of our Camp 7 position. Have noted in the other book about the coloured rock on the big hill. We hear by radio the ice at 'Y' has, if anything, thickened. What's needed is a real blow to clear it all out.

Day #32 Monday December 8 1958

Lie-up. The wind with much drift has kept us in the tents but tonight it seems to be settling. Apart from the wind it was a lovely day with sun and high clouds and temperatures in the twenties. We are close to the edge of a big drop in the middle of a belt of crevassing apparently due to inflow of ice down the glacier from which the wind is blowing, and the crevasses are along our line of course. Not much else to say for today. Good radio sched but the battery is fading. No reply from SecFids about evacuation. The ice at 'Y' is 144 cms - awful. Learned about the movements of the various other parties as they complete survey or geological journeys.

Day #33 Tuesday December 9 1958

A grand day, windy and cold but with no drift to speak of, and although it began claggy and with bad visibility, towards evening the sky cleared and we had sun and a splendid photographic sky. 9.5 miles covered. After a slow start, for survey was done first, Pete and I roped up and surveyed the steep dip ahead. It was rather a sobering business for our course lay parallel to the crevasse lines and one crevasse was over ten yards wide with a fallen bridge. However, most bridges seemed sound so we went back to the sledges, set a course for 'Confluence' Nunatak, and away we went, very slowly with brakes full on. We got through the first bit with only one difficulty when Pete's sledge in the lead dropped a runner through a bridge. So we followed through on a different course. After about three quarters of a mile we dropped about fifty feet. From here we decided to make up the first glacier flowing North East, and pulling up a steep ramp we were soon in it, a very steep sided valley with magnificent precipices on either side and three or four miles long. At its head we traversed steeply to the North West and climbed to a high, narrow col. We collected rock specimens, then galloped across the head of the next valley whence we could see directly South to the Kinneer Mountains and the Sound down the 'Ronne' Glacier, and soon climbed behind Ridge 2 to a high snow plain.

To the North lay a huge plateau block, to its East a wide trough leading to Mobiloil Inlet, to its West a large nunatak marking, we hope, the head of the hidden glacier which leads down to the sea ice by Windy Valley, and to the South of that the Clarke Glacier with the Terra Firma Islands visible through its centre. How strange to think those islands are only a day's good sledging from Base, whereas we are at least twenty days, more probably thirty. South of that again is the 'Ronne' Glacier and Sickle Mountain. We sledged several miles out onto the plain then made camp. Here the two Petes did longitude, azimuth, theodolite and compass and heighting rounds whilst I sketched the contours, then all in to a welcome supper.

We opened 3 crates of dog food today, filled the ration boxes and the empty food box, and chucked the cartons away; three less boxes and thirty pounds less weight to carry. Surfaces have been of good, firm, wind-crusting snow, with only an occasional breakthrough. The dogs have regained some spirit after a rest and extra rations. They pull exceedingly well but have an annoying habit of stopping as soon as the load increases. We look forward to the wireless sched tomorrow, though the batteries are running low.

Day #34 Wednesday December 10 1958

Another useful but cold day. Covered fifteen miles. The day began with a blow from the North East under a stormy sky and it seemed the day would turn out badly. Although the temperature was 16F it felt exceedingly cold and biting. We left camp a few minutes after nine o'clock, ran about a half mile, and then had some delay whilst we collected Alpha. He had gotten off at the start and seemed to prefer rummaging about at the campsite to following the sledges. Pete and Pete went back for him while I waited and grew even colder. After this interlude we really began to move. We soon reached the first nunatak and swung round its Southern tip in a big dip between two tail drifts. We came out on a large snow

plain. To the South was the 'Ronne' Glacier skirting close under Sickle Mountain. Ahead and to the West lay the head of the Clarke Glacier, and to its North the nunatak marking the head of the hidden valley. More or less North of us ran a wide trough between the coastal mountains and the plateau block I noted yesterday. Pete thinks this leads to the col of Windy Valley. We climbed a little, very fast, then rattled downhill over small sastrugi to the foot of the Hidden Valley Nunatak in about four miles. Surfaces were excellent; hard, wind packed snow with sastrugi, and only in the lee of large nunataks was there any softer snow. The dogs seemed to thoroughly enjoy their day.

At the nunatak we depoted about seventeen boxes and carried on with only one week of provisions. What light sledges they now were, about 200 pounds each. At this point Pete and I roped up to trek to a large outcrop at the South East corner of the nunatak under a thousand foot precipice. We collected a few rock specimens. When we had finished we set off to explore the hidden valley. As we rounded the nunatak we came onto a really hard surface with sastrugi growing bigger and bigger as we progressed. The sledges took more and more of a hammering. For the first mile we climbed to a col whence we could look back to the head of the Clarke Glacier where heavy crevassing began. We could tell little of the ground ahead because of the undulating convex slope. We came to the top of each hummock expecting to see crevasses over each one but found only fine crevasse-free slopes. The valley was narrow, less than a mile wide, with towering walls on either side, rock and ice precipices. Well down the valley we came to a corner at the foot of a huge bastion which we thought we had seen from the sea-ice so many days before. The ground to this corner was travelable, so there we turned round and made rapid uphill progress back to the depot where we made camp. The whole detour had taken about eight miles with only a few narrow crevasses in the valley which seemed to widen out at the edges of the glacier, but which gave us no trouble at all.

Radio sched this evening. SecFids has agreed that the plateau route is out of the question for evacuation and agrees we should go to Base Y in mid January; a fearful nuisance to me. Base W plans are changing but not worth recording here. I seem to have written too much for one day.

Day #35 Thursday December 11 1958

Today we covered 11 miles. How these fine traveling days roll by. We were up early under calm, bright skies. By the time we were ready to leave what cloud there was, was fast disappearing. The surveyors spent a few minutes on a survey round while I sorted out the dogs. Angus had chewed through his trace again and so took a beating. Finally away in shirt sleeves and glorious sunshine. We made back along our course for about a mile climbing and over heavy sastrugi then turned North. Hard work. We soon topped a rise and saw ahead a broad trough two miles wide running almost due North with the coastal ranges on the left and on the right the enormous block of plateau I have mentioned before. The surface was smooth and hard and we made rattling good progress with occasional survey halts. By now a cold wind had risen from the North West raising high drift so that progress became most uncomfortable. We carried on to the highest part of the

trough where the wind fell away and we were left in a mist of fine, feathery, whirling ice particles, which we assumed must be cloud and which cut visibility right down. So here we camped. Late in the evening the cloud cleared away, leaving us in sunshine. Over to our left we saw the gap to Windy Valley, ahead a steep glacier to high plateau, and to our right a wide trough running down to Mobiloil Inlet. So here we are, all set for the next stage with all the uncertain and unknown country behind us and pleasant prospects ahead. How I'm looking forward to reading all this to you Mother and Dad. Did fat thickness on all and weighed the dogs, after persuading Pete F!

Day #36 Friday December 12 1958

Today we covered nearly thirteen miles. It seems scarcely credible that we are now sitting at the edge of the Traffic Circle underneath what Pete takes to be Hub Nunatak. Had it not been for a twenty five knot wind the day would have been glorious with temperatures in the twenties. Fortunately the wind was at our backs. The day began cloudy but as the day passed the cloud cleared away leaving us in a windy sunshine.

Today's comments are brief for its hard to keep up on this diary. We broke camp and left just after eight thirty. Soon we had crested the Col and began to descend the Trough. Surfaces became progressively softer and here around camp we are in a foot of softish snow. But the dogs seem to take it in their stride and in any case we have descended a great deal - about fifteen hundred feet. We made for the Nunatak in the centre of this trough and by six in the evening were under its North face where we made camp. As we descended the country opened out 'til from here we can begin to recognise points at the end of the Neny trough on its North side. We are close by the detached set of mountains at the end of its Southern side. Ahead is open flat country down to Mobiloil Inlet past the Traffic Circle, and then on to the Filchner shelf ice. To the South we are beginning to see the unsurveyed mountain ranges fringing the South side of the Inlet to the Hollick-Kenyon Peninsula - a splendid panorama.

We shall make a depot of two weeks food at the end of the Trough before moving South to the back of the Inlet. Our loads will be much lighter which will help the dogs if we hit more soft surfaces. Loads are now about seven hundred pounds for the Admirals, about seven hundred and fifty for Pete F. and about six hundred and fifty for my team. Much better. I ought to have noted for yesterday and today it was so windy and cold at lunchtime we quickly put up the pup tent, lit a primus, and ate lunch in shelter. It makes the only comfortable halt in the day.

The Southward detour will add about eighty miles to this journey and I fear we shall not be back at Base until the second week in January, when, if we carry on as planned, life will be very hectic for a while. Look forward to the next radio sched.

Day #37 Saturday December 13 1958

Lie-up Day. The wind blew all day from the West behind us, carrying low drift, with high cloud cover all day. The temperature has been high, so that no ice has built

up on the tent. The sledges are badly drifted over. Our average has fallen to 7.1 miles a day so we must move tomorrow or it will be below seven again.

Pete has been computing and plotting, Pete F sleeping, and me lazing away, though I did a few odd jobs, and went out to feed the dogs. I exchanged my next six days ration of cigarettes for a block of chocolate from Pete following an attack of extreme hunger during the afternoon when I ate my extra biscuits and all, which now I regret. An extremely successful radio sched: sent out five Christmas signals. And I had signals in from the Sullivans. Makes me feel in so much happier mood.

Nigel is in Blind Bay with Dick; Keith and Bryn are back at Base having had bad weather five out of six days in Neny Fiord. John and Colin are at Base E having run from Base Y to E in a little less than six hours! Amazed us all. What a joy of a summer John is having. No apparent change in the sea ice, and that is all the news. Must away to bed; we hope to start our ten day circuit of Mobiloil Inlet tomorrow if weather permits. Sent Christmas greetings to home tonight and hope to follow myself soon.

Day #38 Sunday December 14 1958

Lie-up Day. I daren't work out the average mileage because I'm sure it's now under seven. Have done - its 6.8! Camp was in cloud all day in a white out. Visibility was awful with only an occasional slight lift of the cloud base to show us the buttresses of Hub Nunatak. Temperature 22F or higher; I only took one reading at 22.00 hours. Gentle breezes from the East. We waited here all day for we can't move until we have completed the survey. In the morning Pete went out to dig his sledge clear and in the afternoon Pete F and I did the same. We have now turned the sledges upside down and restacked the boxes, though no doubt to no purpose if it does blow again. We were badly caught out because the two Petes' sledges were in the drifts to the lee of the tent.

We have now only one useable shovel of the three we brought with us, and that is half broken. Unless they are used very carefully, and never as levers, they just don't stand up to the wear. I read some pathology and repaired my gloves, but haven't done a half of what was intended. This evening I read through Evening Prayer and thought a great deal about many things, especially about self discipline. Had a pleasant discussion with Pete.

Two of Pete Fs dogs were off during the day, both exhibited coprophagia, and one exhibited jersey-phagia too!⁴⁵ Two more crates of dog food put into the ration boxes tonight so we have only eleven unopened crates left, (note: the dog food blocks were carried in sealed tin cans, which were opened one by one according

⁴⁵ My diary -"I spent over two hours digging out my sledge and centre trace two foot under. I suffered a great loss. When out I unclipped Iota as his trace was so buried he could scarcely move. He slunk around wolfing faecies while the others growled their jealousy. Having cleared up all I turned around to find him chewing my blue jersey to pieces. It has lost its right arm and half its side and can scarcely claim to possess the warm soft feel that it had when first given me". It had sentimental value too knitted by Liza and sent to keep me warm at Oxford.

to need and the separate blocks of food transferred to the wooden sledging boxes), three full ration boxes and one ration box with ten blocks. We have four weeks man rations left and 38 days dog food. Dogs fed two pounds of Nutrican each today, and will have two pounds every third day from now on. Must do the radio time checks now before crawling into bed.

Day #39 Monday December 15 1958

We covered just over eight miles today for a total of 270. With relays added the dogs have pulled for 278 miles. Weather a strange mixture. The cloud had lifted so we had an early breakfast, but an hour later all was blanked again in stratus layers. By lunchtime a strong wind began to blow from the West and the cloud lifted considerably, though much low cloud still hung in Mobiloil Inlet. This evening the wind continues but carrying only low drift since the temperature is around or above freezing, too high to allow much trouble with drift. For the survey it was important to secure a good round of angles and heights, so during the morning while Pete F worked at that, as holes in the cloud allowed, Pete and I ski-ed over to the Nunatak to collect rock specimens. It was a pleasant excursion with a very steep traversing climb at its end to a small scoop beneath the rock wall. I found it difficult to make much sense of the specimens because we reached the rock at a contact zone. Details are in the other notebook. By the time we returned to camp at midday the weather looked decidedly better and the survey was finished, so we had lunch, dug out, and left at 13.30. The sledges sank about half an inch into a moderately firm surface which was icy and extremely slippery, and we dashed along at great speed, all of us, dogs and men, happy to be on the move again. We made two survey halts plus sketches and angle rounds around the Traffic Circle - well named because it is a meeting place of at least four glaciers - and came on here to about the middle of the mouth of the Neny Trough. About a mile back we came across one or two crevasses just as we entered the side of the Trough close to a low ridge. They gave us no trouble though both Pete F and I put a foot through. We shall depot within the next few miles and then do our tour of Mobiloil Inlet.

We started a new food box tonight. It turned out to have been messed about with, containing half Pemmican and half meat bar, but not enough Pemmican to make up for a missing bar. I think it a shocking thing to do this to a box and leave no mark on the box. We have all eaten our extra biscuits and chocolate on this first night and now there is nothing to worry about saving - following Pete F's example. I did much repairing especially to a punctured Lilo. Pete has been plotting the traverse and some details thereon. Now off to bed, rather late I fear.

Day #40 Tuesday December 16 1958

We covered 7.6 miles. It was above freezing all day. During the morning the sun burned through the mist and we could see all around the Inlet and up into all the Troughs which enter the Traffic Circle, though the high peaks and plateau were lost in mist. But very soon cloud began to roll in from the Inlet and we were in cloud again. It stayed this way all day though the base settled a little higher so we were sledging along just along the cloud base. We spent several hours at camp making survey observations. We intended to leave the depot on high ground in the centre of the Trough, but as cloud was rapidly rolling in and the visibility

deteriorating we left seven Nutrican boxes, four gallons of paraffin, two empty fuel cans, one empty food box, one broken shovel, and one hand axe on a depot, lashed it and flagged it with two flags, and came away, leaving camp at 10.40.

(Insert here diagram from my diary)

We made course for the glacier entering the South of the bay, aimed for a nunatak. At 13.00 we stopped for a latitude observation and then came on here, stopping at 14.40. Surfaces were good, wet snow, sledges sinking about half an inch, and in places skating over hard crust. The dogs pulled with no difficulty and Pete F and I rode all day, and were very warm for it was a hot day. These light loads will give us no problems from now on.

We could see nothing of our surroundings when we camped. The two Petes weighed the dogs before supper - result in the table at the end of this diary. Tried to find out tonight what was the earliest time we could get a time check on radio - result not until 22.00, though it was faintly audible at 21.30. Second supper from this food box. All (are) for some reason extremely hungry though there is no trouble from cold. I computed under Pete's direction a circum-meridian latitude tonight.

Day #41 Wednesday December 17 1958

Five miles today. Mist, very wet snow, and thaw continued all morning. We could see nothing of the hills around us, so lay up, waiting. At thirteen hundred we had lunch and soon after that we looked out to find the cloud lifted and several peaks visible. During the afternoon quite useful survey (was done). We left at 15.00 and by 18.15 had come five miles across the mouth of a wide trough running due South, with a large Nunatak at its centre. This is the same nunatak we saw from the last survey point in the Neny Trough during the Autumn. Cloud has settled over us again this evening. We hope to reach Victory Nunataks and then to make for the tip of the Joerg Peninsula, and from there back to the Trough, a round trip of eighty miles.

The radio sched is half way through - finishing at ten thirty. Sent out one signal and received news that Anderson, Leppard, Julian Taylor, and one other have received Polar Medals. Dogs fed two pounds each of Nutrican tonight. Later. Just finished a long radio sched with Base Y, John telling us that provisional plans are made for us to be relieved by Beaver. Some discussion about landing sites, the Jones Shelf or the Delorme Glacier being suggested. For this job we must all move to 'Y' by mid-January, and therefore be back at Base by the end of the first week in January at the latest. Then we shall have a very busy few days, very busy indeed. So we should have between fourteen and twenty days left to this journey and should make another one hundred and sixty miles, but we shall see.

Day #42 Thursday December 18 1958

Lie-up. It's been a strange day, warm, sunny, all the surroundings in mist, and light snow falling - and evaporating almost as soon as it hits the tent. We have been able to do nothing but wait here; no survey and no travel. Both Petes have been sketching and painting. I read some haematology. Took one dog photograph. Fat

thickness on us all tonight, and we all seem to be staying about the same. This weather is odd. Above high cirro-cumulus and cirrus, and around all the mountains mists and veils of stratus, at times cutting everything from view and at others giving tantalising glimpses of the hills around.

Pete F swears he will eat nothing at all tomorrow to find out how it feels! I shall not copy him for I feel hungrier than ever on these lie-up days.⁴⁶

Day #43 Friday December 19 1958

Moved on to Camp 30 covering 13.7 miles. The weather was much as yesterday; warm, some sunshine, and a great deal of mist about obscuring detail and generally making survey difficult. This evening, perhaps because we are much lower, there is eight eighths stratus above us and things seem different. There is no longer a sun doing his utmost to break through. Pete decided we must move and leave the survey of the South circle glacier incomplete; we had waited until 09.00 for some sign of improvement, but none came.

We left the site at ten fifty and set course for the Northernmost Bluff on the South side of Mobiloil Inlet en route for the Pyramid Peninsula. After about four miles it became clear that ahead was an extensive belt of crevassing extending in a North easterly direction, so that after we had sketched and taken angles to as much of the mountains as we could see, between mist banks, we changed course and sledged North east towards the North Cape of the Inlet.

This sketch, inaccurate in scale, should make the position clear (Sketch not available – see the Survey Map). For the best part of the day we crossed narrow, hidden crevasses, none any trouble. To our right has been a continuous belt of great rolling mounds, with enormous rifts and holes between them, quite impossible to cross. We made one tentative detour as the sketch map shows, but very soon came back to course! I'm sure the scenery would be magnificent if we could see it, for we have tantalising glimpses from time to time. Surfaces are wet, crystalline thaw snow, rather firmer over the last few miles when the sledge sinks in about an inch. The dogs pulled admirably a load of nearly five hundred and fifty pounds plus me, starting the sledge without any help; in fact I just sit tight. But it does get very cold that way especially with wet feet due to the thaw. If I get off and run my feet get wetter and I catch up the other sledges in no time and have to stand about waiting. All a great problem! I must admit that we descended about a thousand feet which must have helped!

Cocky and Eccles are still great offenders over stopping, but they are improving. Eccles about two nights ago almost finished off the splice in the end of the night span, so now Angus occupies his place, Eccles is on a separate chain, and Yana is on the main trace next to Bessie, both well away from Cocky. It is difficult to arrange them all, for Yana, Alma, Angus, and Eccles are all inclined to chew things;

⁴⁶ His first day of abstinence towards a feast at Xmas!

the bitches offend more often when they are close to the dogs for then they tend to play about all night.

Pete F fasted all day and was quite annoyed when I tried to persuade him to have supper. A great gesture, but as I said, I don't intend to copy even though it would give us extra for Christmas. Lastly, Pete G seems set on reaching Pyramid Peninsula, or at any rate to go out for three or four more days. I don't suppose it will make a great deal of difference those two extra days, but I have the nagging feeling we are cutting our own throats and risking further relief difficulties if we cannot reach Base Y.

Just had the astounding news that Pete F intends to eat neither breakfast nor lunch tomorrow; more than 36 hours without food. Must stop blathering until tomorrow night!

Day #44 Saturday December 20 1959

We covered seventeen miles today. The distance from the Neny Trough Camp in the Fall to Base is a fraction less than forty four miles and we are now approximately forty miles from the Neny depot and a further thirteen from that Camp. This gives a total distance from here to Base of about one hundred miles. The weather today imitated previous days almost exactly. It began with full cloud cover, snowing lightly, and rather colder. Surface definition was fair. During the day the sun tried hard to melt the cloud away, and we saw blue sky and high altocumulus clouds, but now this evening the cloud is back and the mountains up to two thousand feet with no summits. While the sun was high it was extremely close and warm, and after a slight North easterly breeze this morning there has been no wind.

We were up early, leaving the camp just after eight, making straight for Pyramid Peninsula. The surface was perfect; a loose, fine powder half inch deep over yesterday's hardened thaw surface. The sledges did not sink in at all so that the dogs simply scampered along and I kept on and on catching up with the others. After a very little way we came into the area of disturbed ice down the centre of the Inlet. Here, with surface differentiation not all it could be, Pete had to lead out very carefully indeed.

These were not crevasses as we have seen them before, but seemed to be huge rifts well drifted in except for here and there where there were holes about ten yards across and up to forty feet deep. They were so well filled that they were hardly any great danger apart from the difficulty of seeing them. We wended our way rather twistily but very quickly along. At one point about four or five miles from the Pyramid there was a huge ice hill with very heavy crevassing on its Eastern side, but by making a large Easterly detour we got through between a series of well drifted rift holes and all was well. About 10.30 the effect of the sun on the surface became apparent and our skis began to clog badly, so from then on it was footwork and wet feet. But we still made excellent speed and before long stopped about a half mile from Pyramid Peninsula. The North facing cliff is very

impressive indeed, about 1300 feet high and near vertical, and very prettily coloured.

While Pete did as much survey as possible, Pete F and I roped up and ski-ed through a small crevasse field to a buttress at the North West part of the cliff where we collected rock specimens. The bergschrund was spectacular too although easy to cross. Pete first saw, and we later confirmed close up, that a large number of Snowy Petrels were flying around the cliff and apparently nesting there. It was not possible to estimate how many for we never saw more than five at a time, but there were certainly many more judging by the noise. We saw one pair disappear over a ledge two hundred feet above us and felt certain they were nesting there.

In the cliffs to the West at the back of the Peninsula was a rock of a lightish hue which showed extremely clear waving horizontal banding overlying a much darker banded rock. Could it be sedimentary? We don't know. After the delay here we set off again in the direction of Victory Nunataks and made two and a half miles before making camp at 17.00 hours. Here the two Petes observed the sun for longitude and azimuth, after which we all came in and Pete F broke his prolonged fast with a splendid supper. Just before we came in we were visited by a Brown Skua, a solitary bird, who had a good look around before flying off towards the Peninsula. He took several pecks at the knot in the end of Pete F's trailing rope before deciding it was inedible and flying away.

The dogs were fed two pounds of Nutrican and the sledge boxes refilled from the tins. The third case from this journey had leaked at the seams so the Nutrican was damp and a little sour. The evening radio sched was successful with messages from home and the perpetuation of my romantic muddle. The main outcome of a private enquiry is that no-one is particularly worried about the ice or the relief by air situation and I shall stop worrying too. Nigel is at 'Y' and was interested though sceptical that we had seen sedimentary rock.

Day #45 Sunday December 21 1958. MIDSUMMERS DAY

A splendid day. 17.75 miles. We were below low stratus all day and the temperature has held a little below freezing. No wind until tonight but now it is snowing and a wind is blowing from the North east. Surfaces have been excellent. At first they were very firm indeed with a thin coating of powder snow and extremely fast. The sledges did not sink in at all and the dogs never put paws through the crust. There was little or no deterioration in this as the day advanced even though it became muggy and warm: Pete thinks this has to do with the saturation of surface snow. Although the dogs feet began to go through the snow never clogged under the runners.

Travel has been really enjoyable. We did a circuit of the bay between Pyramid Peninsula and Victory Nunatak at very fast speed indeed, the dogs at a good trot all the way. Then we came back to the Pyramid Peninsula, round to its other side, and camped under the cliff marked B in yesterday's sketch, a lovely and impressive site. For the first part of the day I had a grand time skiing, and for the rest a grand

time riding. My feet are nearly dry again. The dogs have had a grand day too. Yana seems to grow very excited at all sorts of things - she barks and yelps away - and I find it difficult to stop her before she gets all the others going. Cocoa carried the sugar box in which Pete had kept his lunch for at least a mile. He looked comical every time I called him and he looked around.

Survey has been done, but with difficulty and not fully, because the highest summits of each mountain block have been in cloud. Several sketches made and many angles taken. We have seen many birds. A Brown Skua has been following us about for most of the day, and many Snowy Petrels are nesting in the cliffs above. We visited a rocky outcrop at the Northern end of Victory Nunataks where we took specimens. A pleasant place and surprisingly easy of access. Pete and I got right up to the rock on skis. I was surprised we saw no birds there. We hurried on and were back at Pyramid Nunatak by 13.00, running in our old tracks like a train on railway lines.

Whilst Pete F cooked supper Pete and I ski-ed up to the first rock exposure near the camp, crossing beneath a hanging glacier and icefall, and then across a wide bergschrund which was open at either end but filled at the point of crossing by snow and ice fallout from a small gully. No Petrels nesting in the cliffs above. We examined the bergschrund. Scree and rock fallen from above had thawed through the bridge and we were able to climb down into it. It was a lovely place with masses of feathery frost crystals hanging from the roof and a sloping ice floor grading into the rock. Pete took a photograph for me, looking up through the curtain of icicles to the lip. After this we took some rock specimens and came back to the camp to a welcome supper.

(insert photo of bergschrund)

The ice under us seems to be free of cracks but often there is a slight creaking under us which may be the ice moving. The echoes at Victory Nunataks were incredibly loud. Between the bouts of yelping I'm quite sure I heard the echo of Cocos breathing, though no-one else believes me. No doubt much is missing from today's account. It seems little to write about a long interesting day. The weather as I finish this on the following morning seems settled bad for the day, so here we lie-up for a while. Pete F has made a fine menu for Christmas Day, which I shall copy out then. It looks promising indeed.

Day 46 Monday December 22 1958

Lie-up. The day began blowing, drifting, and snowing from the North East and very warm. In the late afternoon it cleared up well and now at twenty 22.00 the cloud base has settled at about two or three thousand feet, there is no wind, and the snow has stopped. We lay here all day waiting and hoping for survey weather which never came. The ice still creaks and groans beneath us and the Snowy Petrels squawk and squabble in the cliffs above. We think the creaks in the ice are due to pressure from a distance although the theories mentioned yesterday are still possible.

I began thinking about colour accommodation and made some coloured papers to begin observations. Pete F has made helpful suggestions and constructive criticisms. Thinking of light and vision it's extraordinary how one can tell by a study of the walls of the tent and its change of shade when the sun breaks through even though it is thickly veiled in cloud. Also, just as open water can produce a dark water sky, so exposed rocks and cliff faces can produce great dark patches in the cloud above. They also produce extra warmth and thawing of snow surfaces in their immediate vicinity, as we saw around Red Rock Ridge and as we have seen several times today.

We have eaten well today with a tin of bacon and an extra packet of biscuits this evening, and are all turning in early ready for an early start tomorrow. We shall abandon the survey here if it is not fine and make for the depot as fast as we can. An early start will give us longer on the hard frosted surfaces, though I doubt we shall have a trail to follow back.

Day #47 Tuesday December 23 1958

Today's mileage just over 16 for an overall average of 7.3 a day. We are now camped near the position of our Camp thirty according to our dead reckoning, but the route here seemed very different for we have not passed through the series of rifts and lenticular holes which were close to the camp on the way out.

The weather has been awful. I woke at 04.00 am and quickly went to sleep again for it was blowing hard and snowing heavily. At nine the wind had stopped and visibility was better so we broke camp and left the site at 10.30. We could not see the Pyramid and we soon lost the trail in the new snow, but before long the Pyramid loomed out of the mist and we reached what we reckoned should be the meeting of the trails - but there were no tracks. We cast about for a while and then decided to make our way back by dead reckoning. As we moved on the visibility improved. We even saw a little of the sun and surface detail became quite good. For a little while we could clearly see both sides of Mobiloil Inlet, the Southern side with its peaks still under cloud and the Northern side with summits clear. This held good until we were past the difficult part in the lee of the ice island, but then the cloud came right over again and the wind began to blow from the East carrying heavy snow. It has continued so ever since and we have travelled entirely by dead reckoning inside this ping-pong ball. It really is extraordinary. There is no horizon, no sky, no ground; just blank whiteness in every direction, relieved only by the two black dots of the sledges ahead and by the occasional streak of ice blue as we passed close beside a lenticular hole.⁴⁷ And so we came on here and made camp in a heavy snow shower, and came into the tent to a very welcome supper and to the great comfort of taking off our cold, wet footwear and exposing our feet to the warmth of a Primus stove.

⁴⁷ Leading out in front in this 'pingpong' ball visibility says volumes for the exceptional Caesar as a lead dog.

It only remains to make a few disconnected comments and I'm done for the day. Angus was in trouble again today, for at one halt he bit through the line joining the clip ring to his harness. I really think he is incurable. The surfaces have been fair. Although much snow has fallen it is so wet that it packs very quickly and the sledges slip along quite easily. It cannot yet be quite saturated (if Pete's theories are correct) for he had much trouble from snow clogging under his skis. Pete F and I rode the sledges or ran easily alongside all day. In places drifts were a foot deep but caused little trouble: only the dogs had to step a little higher than usual.

Finally, our course passed at one stage very close to one of the lenticular holes. I stopped the dogs and after tying myself to the sledge walked to the lip and looked down. It was about sixty feet deep, with a steep ice wall on either side and a long drift falling into it from the ends. The bottom was very like the sharp end of an egg (from inside the egg of course) - just a small dimple, quite unexpected in so large a hole.

Day # 48 Wednesday December 24 1958

Today's mileage 5.8. Travel today began very well but ended uncomfortably and very early. However, it is Christmas Eve and our thoughts turn homeward. We woke early (though I had been awake several times in the night) and packed up and left camp at 09.15 after the two Petes had made survey observations and I had taken some photographs and made a sketch in the survey book. It was a lovely morning with gusts of wind from the North East freshening the snow and the cloud above us breaking up to let the sun through. At the entrance to the Neny Trough we could see billowing clouds of drift, and all the mountain tops were pluming and billowing, and a great stream of drift could be seen roaring down the centre of the Inlet towards the Weddell Sea. But for the moment we were sledging along in the side eddies of the wind stream. Very pleasant it was too in the warm sunshine and with such magnificent sunlit and cloud-surrounded mountains to think about.

After two miles we stopped for a longitude observation which took about three quarters of an hour, and then set off again, but by now the surface drift streams were ominously close. A halt was made to observe the circum-meridian altitude of the sun and so to fix our latitude. When this was finished we were all cold and wet, and the wind was strong as ever, so we decided to camp where we were. But no sooner were the pickets in, and as I was driving my night span picket, I put my foot into a crevasse and drove the picket through the bridge too. We poked a hole into it and looked down. It was a horrible thing with practically no surface indication at all, and quite unlike the deep but innocent lenticular holes. There was a sliding drop to an edge, and then black nothing, with the far wall a good twelve feet beyond. I was incredibly lucky not to have fallen into it, and Heaven knows how deep it was. So we reloaded and moved on about two hundred yards, and after Pete (G) had probed about, and we had set the sledges in position for the night I found another hole, also quite wide, in exactly the same relative position. So we moved on again, and when I found another hole at the next site (and not until I had walked clean across it) in the same relative position, we decided to stay where we were, and sounded the limits of the crack very carefully, spanned the

dogs and pitched the tent on a safe area. We just hope that no dogs get off and fall into the hole.

So here we sit until the wind stops, warm and comfortable, and looking forward very much to our meals tomorrow.

My thoughts are very much with you at home tonight. I don't doubt that you will both be puzzled by my messages about girl friends and I can't explain that until I see you. But I do wish you both a Very Happy Christmas and wonder whether Alwyn and Andrew are with you and whether Lucy Mary is home.

Later. Much news on the radio but the only item really worthy of note is that the ice at Base E is showing signs of rotting - fifteen centimetres of ice, then four of water, and then one hundred and six centimetres of very soft ice through which an ice chisel can be driven easily in two minutes. Bryn and Keith are having a useful time and Nigel is still at Y. There was a telegram from home. I will add no more today and see what tomorrow brings. Should measure everyone's fat thickness first - did it!

Day #49 Thursday December 25 1958 **CHRISTMAS DAY**

Today's mileage just over ten. I am writing on Boxing Day because we ended the day yesterday so uncomfortably full that we could do none of our evening tasks. It was a lovely day. At seven o'clock a very strong wind was still blowing clouds of drift down the Inlet, but by nine o'clock this had almost stopped, there was no drift, and the sun was shining from an almost cloudless sky. So it remained all day. A thick belt of cloud passed over us at seven o'clock in the evening but it was gone in half an hour and the sun was back, shining as strongly as ever.

We left camp late, ten thirty I think, and set course for Hub Nunatak. We were still in a heavily crevassed area for on either side were the mounds and hummocks of crevasse lips, and sometimes a small crack would open under a dog's foot. The crevasse field was worse in the next two or three miles. Three times the dogs had to jump holes three or four feet wide, each one having no surface indication, before one of Pete's dogs put a foot through the bridge. We passed close by a very large hole indeed where the bridge had fallen in, and each of us in turn tied onto the sledge and walked a little away to take a photograph.

Soon after this we began to climb. This point must represent the junction between glacier ice and shelf ice. We sledged on up the slope until one o'clock and then stopped for lunch - a special Christmas lunch - but I'll write down the menu later on.

And so we carried on in brilliant sunshine except for one short cold spell when cloud passed across the sky, and eventually reached the depot at about six thirty. Pete F and I had ridden all day. I had never had gloves on my hands since leaving the tent in the morning. The snow surface was fair, a hard but breakable wind crust with occasional soft and granular patches.

I must move on to the subject of food, for although we had a splendid day amidst magnificent scenery and took many photos, food ruled the day. The dogs had two pounds of Nutrican each. There was little else to do for their Christmas.

But our menu was as follows:

Breakfast by Pete F. A very large helping of porridge with much sugar and rich creamy milk. One third of a tin of bacon each with a helping of potato mash and then two Cheese Dream biscuits. A large mug of sweet tea. A cigarette.

Lunch at one o'clock. A cheese biscuit sandwich. Two Marmite biscuit sandwiches. One slab of chocolate. One slab of Mint cake. A mug of sweet tea. A cigarette.

Supper. Aperitif of cheese, meat bar, onion, and orangeade. Then onion and pea flour soup. Then a large meat bar brew. One third of a Christmas pudding with rum butter. Another third of a Christmas pudding. A large mug of sweet tea. A cigarette.

The other two took the lot and had little discomfort. I reached half the second pudding and began to feel odd, and then drank the tea and felt very ill indeed. That more or less ended the day. We went out to take a few photographs in the late evening sun and then all turned in. I hope you all had a happy time at home. I thought a great deal about you until I had indigestion, then I stopped thinking about anything for a long time.

Day #50 Friday December 26 1958 BOXING DAY

Today's mileage almost 14. So that I can catch up on a few odd jobs and on some sleep I will make today's entry short. The weather began well, sunny and warm, but blowing and drifting a little down the Neny Trough⁴⁸. Towards evening heavy cloud spread over from the North and now visibility is not good and the wind still blows from the North. However, we have not been cold. The circuit of Mobiloil Inlet was, by the way, 95 miles.

We came straight up the Trough today and are now camped about five miles South East of the Col, and only about one and a half miles away from the position of our long lie-up Autumn camp. How strange to be back here again and under how much easier conditions. As we came up we began to recognise the well known landmarks. We shall go on from here over the Col of the Neny Trough, finish some survey, and then make back for Base up the 'Flaming Peaks'⁴⁹ Glacier and over the Plateau.

Surfaces have been for the most part good wind-packed crust, though with softer patches in places. Once the sun was high it was badly cloggy, and as we were climbing steeply, progress was slow. We have ascended about fifteen hundred

⁴⁸ Later officially named Gibbs Glacier (from the col to Mobiloil Inlet)

⁴⁹ Later officially named Wyatt Glacier.

feet. We are still eating well for we have decided that this box shall only last six days. Enough for today. I feel tired tonight.

Day #51 Saturday December 27 1958

Lie-up Day #1. We are laid up now and it seems an opportunity to make notes on the subject of sledging rations, and in particular to comment on variety for that seems to be of great importance in the MRC⁵⁰ rations.

We three feel hungry most of the time, and the ease with which we polish off a food box leaving nothing over suggests that more calories would be well used. In particular we should hate to see the butter ration reduced, and we could gladly eat more - but that goes for everything in the box, and very much so for porridge. But we do not wish for variety. In fact in some ways we prefer the simpler menu. We have no vivid food dreams, no intense longings, and only a wish for a little more. We think the system of two man-day packs is DEFINITELY BAD. It gives no flexibility - think of this journey done with two-man ration packs! Change packaging by all means, mark each packet with its proper divisions, but do have all the food of one kind in one container (and while I think about it six biscuits per day and an extra packet are much better appreciated than seven per day by me). Lastly, meat bar and pemmican fifty/fifty boxes would suit most people. Pete and I prefer pemmican, others meat bar. Please do not throw pemmican out. So much for the urgent things to be said.

As when we were last here, we have waited in a strong North Westerly and blinding drift, quite unable to move camp. We have been comfortable for it is not cold, and we have eaten well. I suspect half this ration again for each man would make for very comfortable stomachs. I have done little but lie and read and look at old copies of Punch. Pete fed the dogs. Eccles was off his chain, and may have mated with Zeta who is on heat, for about twenty minutes before Pete went out the dogs made a fearful hullabaloo.

December 28-30. Wind and drift pinned us down for four days as it had in this vicinity for a week in May. We never suffered from the cold as we did then and evidently found plenty of light relief as Henry's diary recorded.

Day #54 Tuesday December 30 1958

Lie-up Day #4.

Our overall average drops to 7.4 miles per day. And still the wind blows carrying drift, and we wait here. We have been playing odd paper games, sleeping, and reading, and there is very little to say. Tonight shows some signs of improvement, though as I write a strong gust blows again. We shall not now cross the col of Neny Trough but instead go straight up the Flaming Peaks Glacier, and home as soon as

⁵⁰ Medical Research Council (MRC) did much collaboration with FIDS on polar nutrition, clothing, physiology etc

we can. If we leave tomorrow we still have a chance of reaching base on the third - just 46 miles to go.

We overheard Bryn on the radio. It seems that Banshee⁵¹ has some sort of bowel obstruction, but John Paisley has advised well and we hope Banshee will be OK. Much laughter today about all sorts of stupid things. Had Pete's type supper again tonight and much enjoyed it.

Day #55 Wednesday December 31 1958

Today's mileage 4.2. It has been a very disappointing day, for although we at last left the lie-up we have come across the most abominable surfaces and with terrific effort have made only four miles. How true is Kevin Walton's statement that the effort involved is inversely proportional to the mileage covered. The weather too has been miserable, for the wind blew strongly from the North West all day, carrying moderate drift. Orographic clouds were forming over the Flaming Peaks, and after a clear beginning to the day the whole of the Neny trough filled with cloud. The temperature is seventeen degrees but certainly feels colder. As you can tell, I'm not in the highest spirits. We took about three hours to dig the camp out for all the sledges were deep under⁵². Then rounds of angles were taken and a longitude observation, and at last, at a quarter to eleven, we were away. Progress was at first slow but steady with much load changing, and by one o'clock we had made two miles, climbed a fair way, and we stopped for lunch and to observe the circum-meridian altitude of the sun.

After this, progress became slower and slower, and at five we made camp having come only a quarter mile in the last two hours, just a few yards at a time, then stop for a breather. The surface is appalling, eighteen inches of soft, crustless powder with very high friction, and terribly hard on the dogs, and on us too after four days of inactivity. However, here we are camped at the mouth of the 'Flaming Peaks' Glacier hoping against hope the surface will improve as we climb, just as it did last time we were here. How very similar this whole episode is.

Radio sched tonight with Colin at Base Y. John Paisley and Paddy went to Base E with Nigel today. No especial news otherwise. I begin to look forward to life at the Base again, though it may take a long time to get there. And so starts 1959!

Day #56 Thursday January 1 1959

Today's mileage 4.3. Another day like yesterday, a real grind to come very little distance. However, we have climbed about fifteen hundred feet to the five thousand foot contour and we are only two miles short of the old Beehive camp position and all the downhill work that comes thereafter. A note about distances - Base is about 37 miles from here. When I looked out of the tent at 06.00 it was

⁵¹ Banshee was retired as leader of the Admirals in 1956 when Caesar took over. He was much revered.

⁵² Luckily the last cracked shovel lasted.

snowing heavily, but by eight the snow had stopped and the mountains were lost in high altostratus. As the day passed this progressively lifted and tonight has begun to break up.

Though the sun was not visible it has been very warm indeed. Pete F took his shirt off for two hours and despite the absence of direct sun was horribly sunburned and blistered over his trunk. Tonight it cooled down as the sun sank lower. The surface is appalling. We have been constantly hoping for better as we came closer to the plateau but only now, at the very head of the glacier, is there any sign of improvement. Lower down the glacier we were in soft snow at least twelve inches deep whereas here it is only eight inches - I mean sinking in these amounts. At the start - we left camp at eight - the surface was quite slippery but as the day passed it became more and more sticky and cloggy, and the runners kept on and on icing up badly. Travel began quite well with men and dogs both fresh, but soon we were back to the old fifty yards at a time technique. We were able to wear skis a little more than yesterday, but up the steep ramps it was footwork all the way. At about the position of the old Camp Thirteen we made a depot and came up this final very steep lift with half loads. I was completely whacked as we reached here having had to push on foot, but we pitched camp and after a cup of tea we felt better. Then the second run up in the made tracks was no trouble at all. It took two hours to get here from the depot the first time, and only one hour to go down to the depot and back the second time. Total depot distance was three miles exactly.

So here we are near Beehive Hill with the 'P40 to 42' ridge close by, where I had such a grand day in the Autumn. Memories crowd in. Zeta has been on heat for three days now. I suppose my dogs are not far off - frightful thought for a team with a bitch on heat is hard to handle. We hope very much indeed to get away early tomorrow and to crack in a really good mileage. It is amazing how utterly dependent we are on surface conditions. We have food until the tenth and dog food until the sixteenth.

(My diary noted "a good hard day's work which is rather unusual on this journey" and that the Moomins had given Henry the brunt of the work today.)

Day #57 Friday January 2 1959

Today's Mileage 14. Although there has been no change in surface we have had a much better day. It has been cold, about 14F, and fine all day with little or no wind, and with sunshine. At first there was high cloud, which cleared away leaving only high cirrus until late in the day when it thickened again. Tonight the high cloud is spreading to cover the sky and a light wind is blowing from the South West.

We left camp at half past six and, with a taste of well-crustured, hard surfaces, made good speed to Camp 12 (of the Autumn journey). It was grand to see all the well-remembered parts again and in so much better light. From Beehive we came easily down to the turn of the leg beyond Armadillo Hill where we had lunch. My hopes for today did not at first extend beyond, but we were able to make another five and a half miles before we camped at two thirty, just before the rise to, and about a mile short of, the flag at point 7C. The last two or three miles have been a bit of

a slog slightly uphill and with a soft surface, especially as we were obliged to split most of the Spartans load between the other two sledges. I had to foot-and-push for that bit, but it was the first time off skis for the day so I could not grumble. We are turning in early and hoping for one more good day tomorrow. The plateau edge is only five miles away and the Refuge at the bottom of Sodomy Slope three and a half beyond that. If we reach the Refuge tomorrow we shall make our way down the glacier in the night and may well reach Base.

The flags placed below Armadillo Hill by the Argentine group have snowed over completely and disappeared. Just one more note about how the clouds were forming below us in the Neny Trough then blowing up out of there and the North East Glacier. So impressive -it's worth an extra note now. (But unfortunately this note was missed in my copy).

Day #58 Saturday January 3 1959

Today's mileage 8.2. Although we are not at Base we have reached the Refuge Hut at the foot of Sodomy Slope and are camped here eating our fill and feeling happy. The weather began doubtfully, cold and misty with visibility less than one hundred yards and a moderate breeze blowing from the West. I felt we would be lucky to reach Camp 6 but we set off to dead reckon our way. We had camped much closer to the rise than I thought and in no time at all we were on the fifty-yards-at-a-time routine. But that did not last long and we were away then on the easy downslope legs. For a while at this stage the mist cleared, but not for long. Then back to typical cold plateau weather with mist and rime ice on beards, anorak, and hood fur, on nose, hat, and spectacles. We carried on until we were just short of where we thought the Argentine flag marked the gateway to the Amphitheatre, and there we sat and waited. It was quite warm by now for the sun was high above us through the mist and the wind had stopped.

Whilst waiting, Pete F laid a depot of two crates of dog food, and four gallons of paraffin, which will be grand if it can be found by later teams, but cannot be relied upon. Meanwhile Pete and I went down on ski to the crevasse and found it firmly bridged. So far the surface had been as usual - two feet of soft snow and a frost rimed surface, not slippery. With that friction we anticipate little problem during the descent.

We waited after a first break in the cloud, during which we saw Blow-me-down Bluff standing on the far side of the Amphitheatre. After about an hour, the cloud cleared again and we set off. One rope brake tied round the runners of each sledge sufficed for control all the way down to the steepest part of Sodomy Slope since snow clogged heavily under the sledges. As we descended, the snow became wetter and wetter. Down here at the bottom of the slope it is saturated. So we dodged down by the quickest and steepest route between misty clouds which were floating about in the Amphitheatre. It was glorious coming down. We took dozens of colour photos and shot a length of cine film coming down the steepest part.

Weather is settled fine and we intend an early start in the morning, maybe reaching Base by breakfast time. We ate enormous meals again including an extra meal of pemmican and a plate of porridge. We feel uncomfortable, especially Pete who has eaten the most. For the second day the dogs have had two pounds of pemmican. Caesar is with Zeta tied behind the Refuge Hut looking for a brood of pups, and Alpha is furiously jealous.

Pete F has painful ulcers near the frenum of his tongue and cannot eat pemmican. We all have cracked lips, sore noses, sore foreheads, and sore eyes - too much sun is really uncomfortable. Can't write more just now, for I feel too full and too tired.

(Part of my diary for this day "We left dead-reckoning in thick smog-like cloud. I followed the course from the Autumn traverse which circumvents a hill overlooking the Amphitheatre. It was difficult to see Henry's sledge (behind) the cloud was so thick...The upper part of the glacier was a wonderful sight and the whole descent to the foot of Sodabread very thrilling and enjoyable... Is it Tennyson who wrote "Ye Icefalls, Ye that from the mountain brow adown enormous ravines slope amain..." Here, indeed are great rock and ice precipices, ice falls and glaciers like frozen cataracts".)

Day #59 Sunday January 4 1959

Today's mileage 12. (And total for the journey 4200. The night of the third was a restless one. The dogs were terribly noisy because of Zeta's heat - all sexed up to hell as Pete says. However, we ate a good breakfast, having partially recovered our appetites, and then, all feeling much better, rattled away down the glacier on fast surfaces with little soft snow. The sky was overcast all day and the cloud base progressively lowered. As we descended the glacier we came through many snow showers, so that we dead-reckoned our way down using the marker flags to check our descent.

Both the Camp Two flag and the Walton Peak flag were visible still, the first showing two feet above the snow and the second only six inches. Drift accumulation in the hollow below Walton Peak explains the difference. We came down from Walton Peak very fast in almost nil visibility, and by a piece of excellent navigation, and some luck, reached the ramp down onto Stonington island almost spot on. Nigel's comment on coming down the glacier in that weather was 'Very lucky'. So ended the happiest two months of my time down here, and a very excellent journey."

Indeed it was and a very satisfying last 12 miles in the cloud and snow ticking off the miles run and the magnetic bearings at each change of course while Caesar kept the team perfectly true and brought us accurately onto the ramp down off the glacier. There was much to do in digging out spans, bringing in a seal off the ice to feed the dogs and other tiring jobs. But Nigel treated us well in the food line while we assimilated without enthusiasm the news that we should close the Base in a few days and sledge up to Base Y. Marguerite Bay was held fast in the grip of pack ice so the prospect of relief by ship was discounted.

The Ice Was all Around

In most years previous visitors to Stonington would have expected clear signs of an ice breakup by January. But it was fast to the horizon and snow level was eight feet deep over Stonington with little ablation. We had no satellite imagery information at this time but John Heap, who had been appointed to FIDS as an ice Observer was getting information of an exceptionally heavy ice year as regards pack ice way out towards the Convergence zone affecting relief shipping to the northern bases. It was these reports that SecFids acted on in telling me to evacuate the base within a few days and sledge up Horseshoe Island.

We got in on the 4th longing to work up survey results, write reports and prepare for the planned expansion of the base with hut and new personnel all aboard the Biscoe but instead turned attention at once to what we could take out by sledge and what to leave behind. Nigel had 500 pounds of specimens. Henry had 500 pounds of personal kit and medical apparatus. I had a deadline for indents for new stores, assuming that Stonington would not be abandoned, and in this Bryn helped me enormously working into the early hours of the 5th and 6th. I issued a long list of immediate 'things to do' most of which involved digging to extricate stores left under tarpaulins on the beach and now under feet of snow and ice. Keith and Pete F did valiant hard work mining the 'emergency clothing' boxes, 120 cases of dog food, the sections of Refuge hut, and moving them to the BGLE's hangar. We were cheered and could relax a little on the 7th evening when I received a coded signal from SecFids mentioning the possibility of a US Icebreaker, the NADIR, coming to the assistance of the Biscoe although meantime we should continue preparations to move to Horseshoe. Whereupon Henry reverted to his medical experimentation and had us all involved in a cold-diuresis test the next morning. It gave one a chance to meditate, if uncomfortably, on the outcome of our tenuous occupation. Nigel lost no further time in moving his gear up to Horseshoe. He and Bryn with the Churchmen and Spartans and two heavily loaded sledges left on the 8th intending to enjoy hospitality offered by the Argentinians at St. Martin. Their welcome was more limited as they had again burnt their hut to the ground, but they did get steaks cooked in a makeshift tin shanty kitchen. Had we known, those at base could have sledged up to offer some rescue assistance. The free and easy way they burnt dripping diesel to heat hot stove plates in pursuit of their gourmet steaks undoubtedly caused these dreaded conflagrations.

A week later Nigel returned with Mac Macdowell to collect the rest of his gear, including a mattress that he had filched from the stranded ship in Neptune's Bellows two years before. "What an acquisitive fellow" I wrote in my diary. Nigel was pleased to leave Stonington behind and end his tour at the more comfortable base. He did not relish its pioneering atmosphere as did Peter Forster and the others. They left again at 21.00H that evening in falling snow. I regretted that we could not entertain Mac for longer as I had not seen him since the search journey with him in Square Bay. The snow storm closed up the windows again leaving us like troglodytes with a lamp and candles.

We got on with reports relieved by ski outings. These reports covered every journey and many aspects of base life – dogs, penguins, seals, meteorology, medical, drifts on the island in prevailing winds etc. Typed with some 6 carbon copies they were, at the time, a fund of dry information for future travellers. As no further word came from SecFids to quit until an ice breaker was off Adelaide Island at the end of February, we completed these and by way of reward had several outings on the firm ice to Red Rock Ridge and the ever entertaining penguins competing and squabbling to bring up their downy chicks. The 8mm films Pete and I took of the Admirals pulling us across, and the close ups of the penguins, entertained us and audiences at talks over the years. Amateur though they were they contributed to the BAS Archives showing a partnership with huskies that ended with the ruling in 1994 to ban all dogs from the Antarctic. I gave a talk on huskies in the Antarctic to two audiences in Cyprus, when collecting for the new Dog Shelter here. How attitudes to huskies changed over the 96 years or so of their selfless contribution.

The Contribution of Dogs to Exploration in Antarctica

(A talk given by Peter Gibbs to the Corona Society of Paphos, Cyprus, on 11th September 2002).

Sep 11th is a VERY sad anniversary⁵³. At least for 45 minutes we will visit that Continent that has never known war between peoples. Indeed where, since 1957 and the Antarctic Treaty, all nations have worked peaceably in the interest of science and exploration and where husky dogs were often the peacemakers between strained explorers.

Why this rather far fetched subject? First, DOGS are a subject dear to my heart, as Christine your Secretary and other Helpers here know well, and rather particularly that breed the HUSKY we are seeing more frequently these days in Cyprus, perhaps due to immigrants from Russia. We have a half bred representative in the Shelter now, Bluey, who can fix you with his one sky-blue Malemute eye. And one coffee morning we were all dotting on this 8-week bundle of husky fur found in the deposit box, a pure bred pup if ever one can be defined. But next morning his Yeroskipou owner claimed him. Second, the need for funds to implement the plans for the new Shelter grows ever more urgent and it so happens that I have taken on to collect for a pen for this breed. We are doing pretty well and have passed the halfway point of our collecting sledge journey now so hope we won't metaphorically speaking meet too many storms, fall down crevasses or get lost on broken sea-ice before we get back to base with our target. You will see from this board that we have another CYP 490.00 pounds/miles to go. This talk will, I hope interest you in this quite incredibly tough and loving dog (part wolf) whose role and sacrifice in the exploration of this Continent has never been properly recognized until quite recently with the publication of the book *Of Dogs and Men* (50 years of dogs with the British Antarctic Survey) by Kevin Walton and Rick Atkinson..

History and Physical

It just so happens we live in a moment of geological time when this huge continent of ancient Gondwana is sitting slap bang centred on the South Pole so that nearly all of it is contained within the Antarctic Circle. 70% of earth's fresh water is locked up in ice which over much of the continent is 2 miles thick. (A Landsat composite image of Antarctica is displayed). Huge glaciers and ice streams flow out from the high plateau through mountain ranges up to 17000 ft high and fill the embayments with shelf ice. One, the size of France is the Ross Ice Shelf, called The Barrier and featuring much drama in the heroic age and the race to the Pole. Others are the Ronne, Filchner and Larsen recently in the news for its partial breakup. Getting to the coast is difficult even at the end of summer due to fast ice and pack ice which expands the area of continental ice cover twofold in winter - as Shackleton's

⁵³ One year after the terrorist attack on the twin towers in New York.

Endurance expedition and others found to their cost. Then ice cliffs prevent landings so that many bases were established on offshore islands necessitating sea ice to travel. Sometimes an island would be partly overridden by a mainland glacier and this was the case at Stonington where we were in my second year, though' now that glacier has retreated to deny access inland.

NO LIFE lives year round on Antarctica except some lichens near the shore. Why? The climate, and what's wrong with that you may well ask on a rare summer day like this with no wind though' the air temperature is below freezing and even fools might join the Antarctic Swimming Club. But get a bit of wind - and it's the windiest continent on earth- (*Home of the Blizzard* Mawson described his book) and temperatures down to 85 F below freezing and conditions become seriously difficult for life.

Only Man, dogs from the Arctic North and a few cats have been alien intruders into this pristine wilderness. Since 1994 and the banning of dogs as a foreign species just MAN with his noisy mechanical machines, highly insulated ships, houses or cabooses treats Antarctica as a scientific laboratory or takes in the coastline as a tourist.

The contribution of Huskies lasted some 96 years from the first expedition in 1898 under Borchgrevink to 1994 when the last dog team (The Admirals as it so happened - the very team that was mine for 2 years though not the same individuals) was flown out and driven the last 300 miles to an Inuit Arctic settlement.

Intruders we were, but we travelled with reverence for the scenery, understanding for its dangers, a great partnership between us and our dog teams. In a few minutes I will try to sketch out their contribution as we have 28 minutes of film to follow, seeing them in action.

All the main players in the so-called HEROIC age of exploration took dogs - Scott, Amundson, Mawson and Shackleton.

Scott had been disappointed in the performance of his dogs on the Discovery expedition of 1902 when they only reached the foot of the Beardmore Glacier, the dogs starving and dying on a ration of bad codfish. He spread his transport risks on the second expedition in 1909 taking two tractors, Siberian ponies and some 40 dogs but intending all along to rely on manhauling when these failed. In fact his dog teams did remarkably well considering that there was only one man, Dimitri, that knew how to drive them to start with. Frank Debenham his young geologist tells some interesting tales of two remarkable dogs Osman and Stareek who were strong old experienced lead dogs in the Russian postal service. And the story of Osman reveals Scott's courage and compassionate character towards them.

All 12 dogs except Osman the lead dog fell through a crevasse and Osman, strong that he was, valiantly held them while Scott abseiled down on a rope. Four were fighting as they pendulumed together and one fell out of his harness to a ledge

below. Scott was lowered down to get them all above to safety, whereupon the saved ones immediately attacked the second team, seriously delaying the rescue process - typical opportunist huskies! This lead dog Osman had been washed overboard from the Terra Nova during the storm that nearly sank the ship a couple of days out of Lyttleton. But Providence be praised, thinking of this episode, he was washed back on deck again!

He looks a strong old timer!

Stareek unfortunately is not photographed by Ponting, at least in my book, but is described as similar to Osman with a fine head and more of an eskimaux look. Described by Ponting as 'gentle as a lamb with a lovable habit of licking his lips and wagging his tail wildly and lying on his back with his tongue out and pawing his face whenever anyone conversed with him'. On the southbound depot laying journey across the Ross barrier Scott decided he was too old for the job and should return North with the first party but they would have to feed him from their own rations. At least he was not put down to feed the other dogs. He was duly swapped and commenced North but felt this a great slight on his character, always out front and breaking trail, he chewed through his trace and ran South. There was nothing to be done (radio was not yet invented) the party continued North back on their tracks. 18 days and 200 miles later imagine their surprise to find Stareek lying on the sledge in the morning, at least 20 days with no food and so weak he could barely walk. 'That', Debenham wrote, 'is a feat that should be preserved in the annals of travel' and he being his last master and driver was very proud to have had that honour. He took charge of a young scratch team and one day did all he possibly could to help Debenham prevent this young team chasing some penguins and causing mayhem. He died before the relief ship came in "Here indeed was a dog of dogs, enduring beyond belief and worthy of a small niche in the temple of canine fame".

As we all know the whole polar party died. Had they taken dogs like Amundsen they may have lived but at the expense of the dogs.

Amundsen succeeded, great courage, totally committed to the pole but planning from the start to sacrifice his dogs. He found a route to the plateau up the Axel Heiberg. Quoting from his book "The dogs seemed positively to understand that this was the last big effort that was asked of them; they lay flat down and hauled, dug their claws in and dragged themselves forward". That day they climbed 5750 ft and covered 19 miles and that night 24 of the 48 were slaughtered. Only 14 dogs returned from the pole - what sacrifice to be first to the extremity of the earth.

Mawson too owed his life to 7 dogs 3 years later. He, Mertz and Ninnis with two sledges were 300 miles out across difficult crevassed coastal country so he took the precaution of putting all supplies like food and the main tent in the second sledge. He was sitting on his sledge computing a sun sight waiting happily for Ninnis to catch up but he didn't. The whole team with Ninnis and supplies had gone down a crevasse over 150 ft and he had no rope longer than 100 ft. They had left no depots intending to return by a different route. His return was an epic of

endurance. Mertz died, the 7 dogs exhausted, and emaciated were killed one by one and thereby saved his life, just.

Shackleton's remarkable escape and rescue of all his men from the Weddel Sea is well known. He was a great animal lover and felt keenly his decision that their 40 dogs should be put down having hauled their life boats to the ice edge. But meantime, quite unaware of their Leader's fate, an incredible drama was going on over on the Ross Sea side of the Antarctic, laying depots for Shackleton to find on his crossing. (The book *Shackleton's Forgotten Men* by Bickel was published in 2000 from diaries). Their supply ship the Aurora at Cape Evans was blown out in a storm with virtually all supplies so the party of 6 under Mackenzie scratched around for stores left by previous Scott and Shackleton expeditions and killed seals. They then commenced 2000 miles of sledge journeys in which one of their party died of scurvy and Mackenzie and Hayward were blown out to sea on the ice, having been invalidated back on the sledge by Joyce and the remaining 4 dogs, the others of which had died in harness. Joyce succeeded in this daunting task of laying the last depot where Shackleton wanted it at the foot of the Beardmore glacier, thanks to four dogs OSCAR GUNNER TOWSER and CON. The dogs pulled 745 lbs for their combined weight of something like 400 lbs. "It's incredible the vim they put into their work, they seem to realize what's required of them. These dogs are TROJANS" Joyce wrote. Elsewhere he described OSCAR as the strongest and best lead dog he had known.

OSCAR apparently lived to the very old age of 25 in a zoo in NZ. What a pity he could not have retired to a loving shelter like CAPCA to get pats and TLC every day instead of being stared at through bars. But return he did and was much admired for his enormous contribution.

Jumping 30 years to 1946 outside the 'heroic' age, another hero Sir Vivian (Bunny) Fuchs who during an enforced third year at Stonington (as the ship could not get in), carried out some major journeys with his lead dog DARKIE - no photo but the typical build of a husky from Labrador but black! Now this was the beginning of FIDS and BAS and a more planned partnership future for the huskies for the next 50 years though' Bunny himself quoted Burns 'The best laid plans o' mice and men gang a-wry' when dealing with Antarctic contingencies. He described Darkie's leading technique when crossing a bridged crevasse 'He advanced cautiously in the fashion of a heraldic lion each paw extended as far as possible to test the surface in front of him. In this way he found every crevasse and successfully crossed the majority' (he didn't say what happened on the occasions he didn't cross successfully but was certainly saved alright because he performed leading the team in the Festival of Britain in 1952, and was then homed by Bunny to Cambridge and pulled him on his bicycle jumping the white lines in the road). It was said that the RSPCA nearly had him for cruelty to animals! There is a picture of Darkie and Sister in a sitting room environment in this book *Of Dogs and Men* watching over Kevin Walton's three baby children.

Dog cards were now kept for every husky with descriptive comments like 'a real Houdini' etc. Dog breeding was now done with characteristics in mind so that over the years heavier stronger dogs with great stamina were produced.

Victor Russel, in 1946, while sledging from Hope Bay was given no choice in the matter when his pregnant bitch PRETTY tore open the tent and whelped 6 pups in his sleeping bag. He had a sleepless night and shared porridge with the proud mother in the morning. Generally, attitudes were changing and no longer did bitches have to drop their pups on the trail and keep pulling. Indeed, there are many stories of pregnant bitches being returned to base with great care.

One crevasse rescue illustrates this concern for dogs' welfare so well. It is the story of DROOPY told by his brave rescuer Mick Pawley. It took place on that rugged island Pourquoi Pas that I was looking across at when I had a swim. Mick and his companion had decided to sledge across from the island to bake a loaf of bread at the hut on Horseshoe for which they were craving. Unfortunately, the dogs fell into a crevasse and as they hung they started a fight as if to say "Goddamn this is your fault and I'll teach you!" Droopy dropped out of his harness and out of sight. Mick and his companion hauled the others out and thinking Droopy needed finishing off Mick abseiled 150 ft down with a pistol in his anorak pocket. At the end of the rope there was Droopy straddling the narrow walls on all four paws BUT some 20 feet to one side and he could not get to her. Forget the pistol, she was alright and he commenced to save her. This meant untying his own rope and traversing across, getting her and traversing back to the rope, tying her on and himself and, perhaps with help from his mate up top, getting her to the top. A rescue which I think deserves the highest recognition. (I looked up Poulson's Medallic Record and was pleased to note that he was awarded a Polar Medal and served some 4 years at Stonington from '69 to '73).

In my two years ('57-'59) the Admirals were my transport. They taught me much about their outlook on life and I in turn about mine - we got on just fine. I threw the whip away at once and Caesar thought that was a positive gesture. From then on it was his name and a command. He was an incredible lead dog - Some 2500 miles and generally no-one leading out front but him. We never dropped the whole sledge into a crevasse; he sensed where to cross or Babe may have passed advice just behind him. The big boys like Frankie. and Buster and Alpha didn't have to use their brains just their weight and they did so like a team. We were out two winters running in conditions as exposed as you could wish but I never once heard a whine of complaint (not that you would hear much in a blizzard and they generally got drifted over) though that could be a danger if drifted too deep, as were crevasses and breaking sea ice which caused the losses of other men and their teams; but the Admirals survived to be the last team of some 40 teams and were flown out to Arctic Canada in 1994

Huskies were remarkable to survive calamities like the complete blow-out of the Bay ice on the 28th May '58 the day 3 men and 2 teams of 14 dogs had set out from Horseshoe to the Dion islands, where Emperor penguins nested, in mid winter. There was no radio contact and until new ice formed searches could not

be conducted far afield, which we then did over the following 6 weeks to islands 50 miles out. We covered 400 miles in search journeys using the few twilight hours of daytime. Like polar bears 10 of the 14 dogs floe-hopped and swam back to the mainland. They found base or we found them. Huskies have a built-in direction sense and like other dogs, now tested by research, a strong telepathic morpnic connection with their own pack or their master.

When they give vent to emotion and in unison croon to the sky, it is started by one and others take it up. But it stops abruptly without a conductor. It is a pack response. Ken Blaiklock described his memorable experience of a solar eclipse. As it grew dark and a corona formed, his team let out a howl for the duration. A great day to end 25 miles and discovery of the Trans Antarctic Mountains on their way to the pole supporting Fuchs' crossing.

The 10 dogs that returned from the lost party were made up into a team we called The MOOMINS driven by our doctor, Henry Wyatt. They served us very well the rest of that year, had a miraculous rescue from a crevasse three years later; took part in a 1200 mile journey when an aircraft crashed, to get home, and then suffered a most bizarre and tragic end in 1963 just 12 miles up the glacier from Stonington. They and their two drivers died in a ferocious blizzard buried under deep snow held down by their traces. One man was standing up spade in hand at the entrance to a snowhole inadequately dressed and frozen. It is presumed that he was shouting to guide the second man who had gone out to see to the dogs and got lost. Those dogs died knowing the details of their first calamity too on which I and others have speculated a good deal.

In March 1958 the heavy pack ice you will see on the film prevented also the base on Dettale island being re-supplied. It was closed and they also sledged out to the ships. But STEVE decided to stay and would not be caught. Everyone mourned his loss. Three months later in the middle of winter he bounded up to the front door of the occupied hut at Horseshoe Island very pleased with himself after his lonely journey. These slides give some idea of the journey he had to make, which he had done once only 2 years previously in the reverse direction, not in my team but accompanying in one from Dettale island, also in winter.

At this time midday noon looks something like this. The Heim glacier was crevassed in parts and if he had 5 ft of snow, as we did, he would have had a long lie-up. He had 25 miles up Lallemand fjord to a glacier snout; 25 miles or so over the Heim glacier, the Jones Shelf ice to cross to get to the little hut on Blaiklock Island where he may have hung around wondering if anyone would arrive, hungry; then 30 miles down the last two fjords.

Many tales abound in this one book that commemorates the era of dogs in Antarctica from 100 contributors and time forbids more telling. The film should reveal the relationship. But lest anyone gets the wrong impression that a husky's life was without humour let these dogs have the last word - Angus Erskine's team on glare ice could get no grip so one dog jumped on the sledge. In a moment they

all followed and he had to pull the team home! (Cartoon drawing of the dogs sitting on the sledge and Angus pulling).

As events turned out two months passed in busy base activities with outings locally to climb Roman Four or Neny Island to see whether open water was visible, or memorable days to the penguin rookery at Red Rock Ridge. Henry accompanied Keith to geologise along the coast of Neny Fjord camping for several days beneath Roman Four. At times when the hut drifted over and the minimum temperature fell to -6F the prospect of certain relief seemed doubtful. On the 2nd March we listened keenly to the radio talk that the Biscoe and the American Icebreaker Northwind were off the fast ice 50 miles off Detaille Island (Base W). The ice breaker tried for hours breaking in but could only get 1.5 miles. The base was to be evacuated by helicopter and sledge. The same prospect seemed in store for us and Horseshoe Island. Without the aid of the US Northwind with its two helicopters we might have had a third year to recount. As it was we prepared six sledge loads of kit, left the American huts and Trepassy House swept out, windows boarded up, generator and all furniture off the floor, Harnessed up the four teams, took up the spans and coiled them on the loads; and with the Admirals pulling two sledges I led off onto the sea-ice over the tide crack It was 10.30 in the morning of the 7th March, a year exactly since our arrival on the John Biscoe. The conditions of weather and sea-ice were most favourable, sunny and calm with the surface up to the Debenham Islands very fast. Bryn and I each had two sledges in tow and Henry and Keith's sledges were heavily loaded. We reached San Martin after an hour and a half, stopped short on the ice where the Argentines came out to meet us. I explained the situation to Lt. Giro as best I could giving him a letter I had written in Spanish which he read and understood! They were busy building a small hut and all seemed cheerful. We continued on sledging in spells of an hour with a break in between. It was rather slow to Calmette Bay but once onto the windswept ice crossing Square Bay we made good speed. Much of the ice was bare of cover, very hard and slippery. Some beautiful lights. Pete and I took half a reel of cine on the way up. At Camp Point I had heard faint helicopter engines so that on arriving at Horseshoe I was not surprised to find new faces and a complete change of things. The helicopters had flown in, taken all but John Paisley out to the ships and brought in the new personnel. We learnt that Keith was to stay but that Peter F was to go out⁵⁴, which of course upset him rather. I am very glad that Keith is staying behind. He will be invaluable to them. We picketed the dogs on the spans we had brought with us. We were tired and hungry and left the sledges loaded for the evening. I had a word with Robin Perry who is appointed Base Leader at 'Y'⁵⁵.

That evening I spent time with each of the Admirals I had got to know so personally. Two years with the team is a long time in a dog's memory. For Alpha

⁵⁴ The director's policy thinking was that Peter F would have better opportunity to continue the surveys inland if they could relieve Stonington in the next year.

⁵⁵ In later years we corresponded a good deal and he sent me an interesting memoir of his two years, the first at Detaille Island (W) and the second at Horseshoe.

and Zeta in their second year they had only known Sandy as a driver. The others had known Jim Exley for the previous two years who was also particularly attached to these huskies. But what I wondered was in store for them now, no long journeys in the near future as Horseshoe was to be a static base this year but they would get local sealing runs and compete for affectionate attention with the other 45 dogs now spanned on the snow here. I never realised at the time how deeply imprinted in my consciousness these huskies and the times we had together had become for still, 50 years on, I see clearly each face and feel the different texture of their coats. Like tethered slaves they lived mostly ignored lives spanned out on compacted snow in all weathers, fed only every second or third day a great chunk of frozen seal meat. No wonder they came to life in a frenzy of excitement at the sight of an armful of harnesses. This was it and what they were bred for and any grievance or jealousy with the dog that could not be reached on the span would be settled in a melee of fighting given any chance by the unwatchful driver before they could be released in a frenetic gallop to absorb their energy. I thought of former expeditions in unplanned hasty withdrawals who were not able to leave their dogs with anyone or take them out. Their fate was never assured. I could not imagine being their executioner after two years of loyal service. This departure was relatively easy. Wisest of all dogs, half wolf with the best developed telepathic intuition and morphic consciousness they knew full well I was saying goodbye and thank you and would not forget them. Frankie's high pitched gurgly growl reminded me that he had broken a karabiner to get at Babe in season. Babe stood gently up on her hind legs and crooned, proud of her performance in the cold blizzards in spite of her thin coat and proud of her close seconding to Caesar a short trace in front. Caesar, the butt of lost tempers thumped and beaten by former drivers in his earlier days of trying to take over as lead dog from the revered Banshee, deferentially sat there a trace length apart wolflike with a silver-grey ruff and now the confident leader who had woven a way through so much treacherous terrain with never an accident. I owed more to him than any other but was careful not to show it to increase jealousy and hostility towards him particularly from Johnny the instigator of most fights. Wol, if ever aware that he once had my knee in his powerful jaws, showed only playful affection burying his head powerfully into my crotch. Zeta coyly squiggled like a bellydancer. She had the truest markings of a Siberian husky. Alpha again stood up on his back legs and licked my face a full 2 metre reach what a powerful yet gentle husky he had grown into and devoted to Zeta his pair.

My reverie was interrupted by the whirl of rotor blades and Texan-like greetings in American accents with warnings to duck low and pass in the piles of boxes and bags. Our rescuers whirled us up flying westwards across the mouths of Bourgeois and Laubeuf fjords giving the best views of the ice we had crossed on the winter search journeys. I was particularly interested in a large lead running from the Guebriant Islands to Red Rock Ridge, reached for the cine camera and wondered how we would have crossed it had we not had the technological help of the Americans. The ice breaker and the Biscoe were nosed into fast ice off the Avian Islets. No sooner were we landed than off they flew for another pickup. Henry, Pete, Bryn, John Paisley and I were invited to the Ward Room by invitation of

captain Kelly Johnston, the officers and an American Observer, all dressed in uniform contrasting with our blubbery anoraks and warmly welcoming us back in to their more civilised secure world. While our relief was thanks to American largesse, skipper Johnston allowed himself a self-satisfied grin to have accomplished this coup.

But before climbing up the ladder to the Biscoe while standing on the fast ice gazing back in a reflective moment to the mountains and glaciers we had got to know so well, I took a photograph of Henry, as below, and later captioned it with a verse from a poem by Margaret Cropper which captures the eternal mystery of this ice-clad continent, as yet visited by few of our kind and still unspoiled.

I know that it is today, and there was yesterday, and will be tomorrow
But up there, where the hills are deep in snow, that is eternity:
That is out of all reckoning and telling.
You can't measure that proud white beauty,
But you can live with it for a little space,'
That will not belong to today, or yesterday or tomorrow,
But to the time beyond time.

The Conundrum of the Frozen South

The pack ice held us in its grip for two weeks in spite of the Northwind ice breaker and later the Edisto also trying their best to forge a way through 3-metre ice floes and at times attempting to tow the Biscoe. On one occasion the tow wire snapped, the Northwind came up against heavy fast ice stalling her progress and the Biscoe rammed into her stern causing some damage. It was embarrassing to stove in the rear end of our rescuers, but they took it in good part. I spent the time reading polar books, Shackleton, Byrd and Bunny Fuchs' recent account of the first crossing of the Antarctic. I thought a good deal of Shackleton's glorious failure, caught in the Weddel Sea ice for over a year until the Endurance was crushed and sank. Then he showed his extraordinary leadership ability and said "Now lads let's go home". With that began the most stirring tale of polar stories. Forty years before our time there were no friendly ice breakers around. But they had the ships life boats and the determination to win through.

The abandoned base, Shackleton, named after him, at the eastern end of the Filchner Ice Shelf held a fascinating attraction for me. There it was, still serviceable and would be until the weight of ice and snow would crush it, and no journey had been made across the Ice Shelf to the base of the Grahamland mainland. I envisaged a journey with dog teams of some 1200 miles with selected colleagues to survey this gap and end it in the familiar terrain of the last year coming into Stonington base and being relieved from there. This trip had its beginnings now and survived through to a number of enthusiastic meetings with Sir Vivian (Bunny) Fuchs who gave it his full backing. There were to be conditions one of which was the availability of the chartered ship Kista Dan to land a party at Shackleton and another, that the aircraft, FIDS were then planning to get, would be in position and operating from Stonington or within range of our party to offer any essential back up. We ourselves were prepared to do it without aircraft backup. Correspondence with David Wilson, David Needham, Henry Wyatt and John Paisley who were all keen to be included, kept us much involved with these ambitious plans for the next 18 months. It was a disappointment for us when the plans were far advanced with permission from the FO for David W to take 18 months off and Ray Adie in charge of FIDS geology offering David N scope for a PHd., to hear that with regret the ship could not be spared after all.

Like many before me I had been touched by the polar spell, bewitched by its magic and its moods. We spent anxious days kicking feet in sleeping bags trying to keep them alive and dreaming of food-a-plenty and warm fireside homes. But given a few weeks of soft civilized home comforts it is the hankering to get back to those ice bound horizons. Why why? No words can simply explain away this conundrum.

Apsley Cherry Garrard who wrote *The Worst Journey in the World* identified the largest ingredient of it when he wrote in the Preface "The mutual conquest of difficulties is the cement of friendship... give me ex-anarcticists, unsoured and with ideals intact: they could sweep the world."

This is largely it, the friendships of accomplished journeys with some privation, but it is mixed up with other ingredients, one of which is the confidence of all the acquired knowledge and techniques of polar travel, knowing you can survive in relative comfort, repairing equipment and clothes, making dog traces and harnesses, knowing and caring for them, recognizing and avoiding dangerous situations. In short the deep satisfaction of being tested in fairly extreme circumstances and celebrating inwardly an enrichment of the spirit. You are more alive when you live 'on the edge'. Then there is the aesthetic beauty of skies and ice scapes, the colours, the reflected lights of billions of crystals on the surface and in the clouds, crystals which now can be seen to be perfectly six sided with sharp points, unpolluted and energetic. Maybe our water melted from this pure ice and snow gave us extra energy. Of all characters in the heroic era Edward Wilson was deeply spiritual, totally unselfish and more in tune with the wonders of nature than any other. Then too there is the unmatched closeness of the environment, reading poetry or perhaps a devotional book, warm in a sleeping bag by candle light with the sound of drifting snow a few inches away coming against the ventile cloth of the tent.

Today many thousands visit the Antarctic in cruise ships in the summer months, well insulated from chilly breezes, photographing the austere ice and landscape and getting ashore at one or two bases to talk to scientists stationed there for some minutes. Theirs is a brief and limited experience. The late Angus Erskine offered clients more experience of polar travel running private dog sledging trips in Greenland and Wally Herbert was knighted for his crossing of the Arctic by dog sledge which was I think the culmination of his polar career. For my part a land surveyor training and family responsibility took precedence and I never went South again. This Part 3 of memoir is intended to give an idea of life and exploration fifty years ago, a rewarding experience which I hope some readers will also enjoy.

THE END