

AUSTRALIAN NATIONAL ANTARCTIC RESEARCH EXPEDITION, 1955

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ON SATURDAY, 13 February 1954 a new Australian Antarctic station was established on the Mac-Robertson Land coast and named Mawson.¹ Early in 1955 a relief expedition led by Phillip Law visited Mawson and replaced the pioneer team of ten men, under Robert Dovers, with a team of fifteen men led by John Bechervaise. On the way to Mawson the relief expedition carried out exploration along the Princess Elizabeth Land coast. The following account of this voyage is given by the leader, who is Director of the Antarctic Division, Department of External Affairs, Australia.

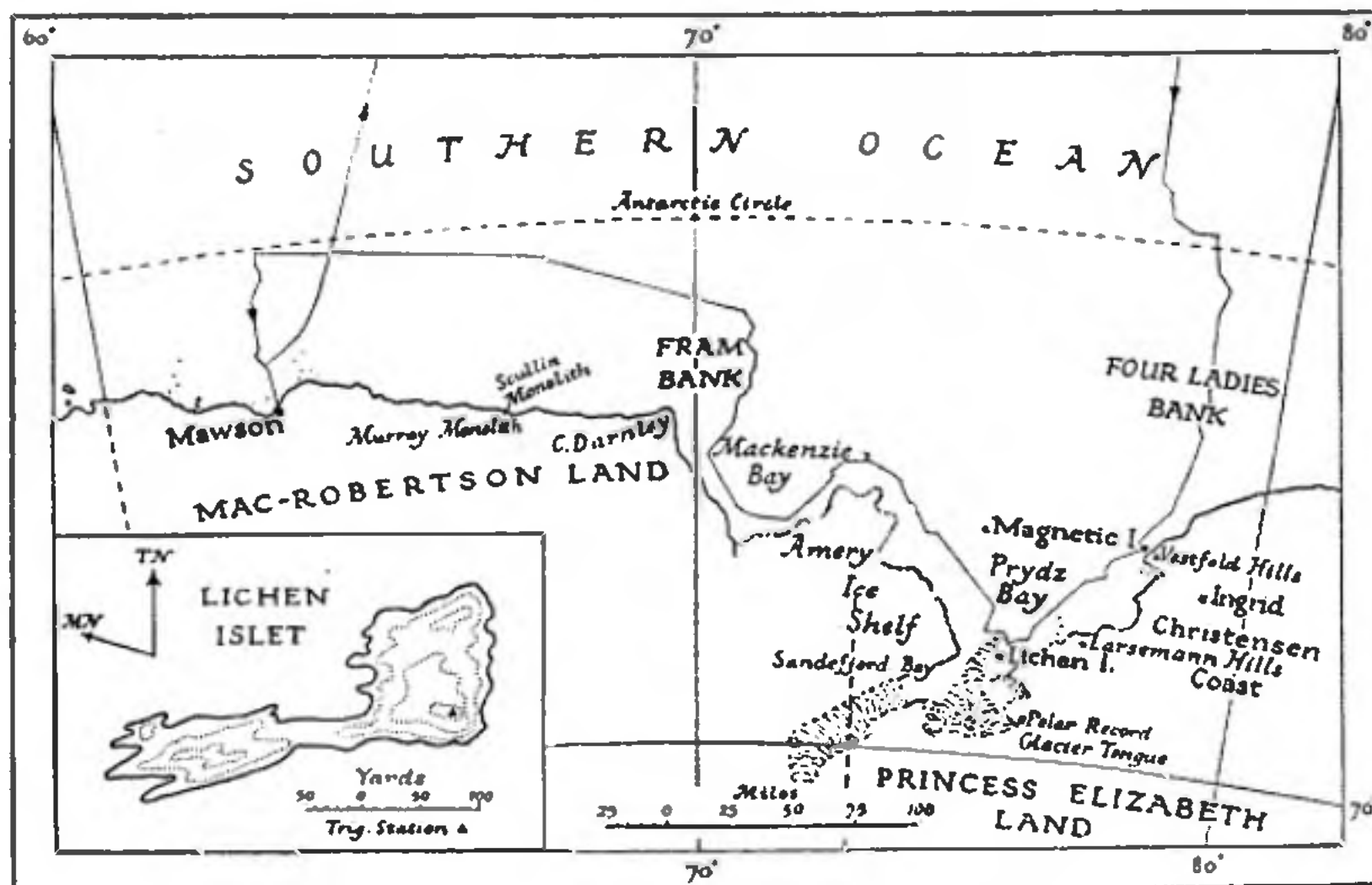
In 1955, as in 1954, the Australian Government chartered the Danish ship *Kista Dan*, commanded by Captain H. C. Petersen, for the purpose of relieving the A.N.A.R.E. stations at Macquarie Island, Heard Island and Mawson. After a quick and successful three weeks' voyage to Macquarie Island, led by Jerry Donovan (Administrative Officer of the Antarctic Division), the *Kista Dan* returned to Melbourne to load for the Antarctic voyage on January 4. The loading of expedition ships has now become a routine procedure for the A.N.A.R.E. and by 1900 hours on Friday January 7 the ship had taken on some 350 tons of stores and was ready to sail. No aircraft were provided for the voyage, but two Army DUKWS were taken to simplify the landing of stores at Mawson, where open water had been reported in the harbour in place of the fast-ice which was encountered there in 1954. Prior to sailing, the Right Honourable the Minister for External Affairs, Mr. R. G. Casey, C.H., D.S.O., M.C., visited the ship and was introduced to the men of the expedition and the ship's officers. There were on board, in addition to myself, the Officer-in-Charge of the 1955 Mawson Party, John Bechervaise, and his team which comprised Dr. Robert Allison, medical officer and second-in-charge; Neville Parsons, cosmic ray physicist; Hugh Oldham, geophysicist; Robert Lacey, surveyor; Peter Crohn, geologist; Peter Shaw, meteorologist; Fred Elliott and Leon Fox, weather observers; Fritz Van Hulssen, radio supervisor; Eric Macklin and Jack Ward, wireless telegraphists; Alan Gowlett, diesel mechanic; Alf Riddell, carpenter; and Dick McNair, cook; the officer commanding the Army DUKW team, Lieutenant Tony Hall, and his two men, Lieutenant William Bathurst and Corporal Cecil Power; my lieutenant for the voyage, Richard Thompson; and two men from the Australian News and Information Bureau, journalist Tom Hungerford and cameraman George Lowe. Twelve of the fifteen Mawson men had served previously with the A.N.A.R.E. at one or other of the island stations.

As the Australian Government had decided to close the Heard Island station, I planned to call at the island on the way south and to transfer certain huts, mechanical equipment and the huskies from there to Mawson. The journey there took sixteen days and was, in addition to being as tedious as usual, extremely uncomfortable. On seven days the wind blew with Force 6-7, on six days it was Force 8 and on one day Force 9. We anchored in Atlas Cove at 0410 hours on January 23, in a strong north-westerly wind and a heavy north-east swell, and conditions for loading were dangerously difficult. But by dawn on Tuesday January 25 the

¹ See *Geogr. J.* 120 (1954) 409-21.

weather had improved, and we were able to complete operations at Heard Island and to sail for Antarctica that evening at 2109 hours.

We made good progress on our course for Prydz Bay until Friday January 28, when Force 8 winds from the W.N.W. forced the ship to heave-to between the hours of 0600 and 1600. This delay was exasperating as it had been expected that the ship would enter the pack ice belt on Friday evening. Large numbers of icebergs were first encountered in the region of the Banzare Bank: this was almost 500 miles north of where we first sighted them last year! This was not unexpected, as the 1954 Heard Island party had sighted icebergs for the first time for some years and two were aground off the south-west coast of the island when we arrived. Messages from Mawson stated that no fast-ice was left and that no pack ice could be seen to the north, so there was no doubt that the ice conditions



this year differed considerably from last. The ice edge was encountered on Saturday January 29 in position lat. $66^{\circ} 17' S.$, long. $77^{\circ} 43' E.$, and shortly after lunch we began to sail over the Four Ladies Bank through a great accumulation of grounded icebergs. The minimum depth registered was 60 fathoms. The day was calm and dull and good progress was made through open pack. We stopped for the night at 2230 hours in heavy pack. Sunday January 30 was a magnificent day—clear, sunny and calm. Progress was resumed at 0430 hours and, after pushing through some heavy pack, we ran out into open water at 0530 hours and sailed through lines of icebergs directly for the "Vestfold Hills."¹

Our destination was "Magnetic Island," where we landed in 1954, but our direction of approach differed. Speed was reduced to dead slow and, with echo-sounder running, the ship edged her way forward between numerous islands which were bare of snow and covered with extensive Adélie Penguin rookeries. At 1140 hours there was a grinding jar, the ship lurched and bucked several times before the way

¹ Place names in quotation marks have not yet been shown on official Australian maps and charts. They are marked on the map with an asterisk.

could be taken off her and we found ourselves stranded on top of a sharp pinnacle of rock which had passed to one side of the echo-sounders without registering and had struck the ship amidships. It took half an hour's manoeuvring by the captain to get clear again. Fortunately the ship has a 2-inch keel plate and 1-inch plating elsewhere below the waterline; nevertheless, it was not a pleasant sensation to be aground so far from home. We retraced our path, made another approach, and anchored off "Magnetic Island" in 9 fathoms at 1400 hours. Bearing in mind the way in which a snowstorm last year had robbed us of the chance to investigate this region thoroughly, I set into action immediately a plan drawn up earlier for a concerted attack upon the area, by groups detailed to obtain specific information.

First, Dick Thompson and the Second Mate, Bill Petersen, took a party of four scientists in the ship's motorboat to "Magnetic Island" where, between 1530 hours and 2030 hours, they commenced observations of position, magnetism, gravity, geology, ornithology and botany. In the meantime I took two DUKWS, under the command of Lieutenant Tony Hall, and a party of eleven men to the mainland with full camping equipment. We landed further to the north of last year's landing: the DUKWS had to push ice floes out of the way to make a landing on a good flat beach, and the second DUKW bogged and had to be winched out by the first. We then ran the DUKWS in nearly a mile before deep, soft soil (where a DUKW again bogged) and a field of boulders forced us to stop. A good camp site on rock and snow was chosen near the shore of a lake, which turned out to be brackish. When the DUKWS were unloaded I sent them back to a spot from which they would have no difficulty in returning to the beach in case of a heavy snowfall.

While some of the men set up camp, three of us made a preliminary examination of the surrounding country. We walked about 8 miles, visited two lakes and one fjord-type inlet, and were away three hours. Upon our return we had supper and cleared up while the others covered a further area. We retired for the night at 2330 hours, four men in a pyramidal tent, two men in a small mountain tent and five men in a covered DUKW. On Monday January 31 we rose at 0300 hours and prepared for a long walk over what is marked as "Breidneset" on the Norwegian chart.¹ We broke up into three groups—four led by Bechervaise, four by myself and three who were to remain at the camp. The two field parties started out together at 0630 hours and later diverged to explore what the Norwegians had marked as a long inland lake, my party following it towards the sea and the other party following it towards the continental ice cap. It turned out to be a fjord, not a lake. We returned at 1630 and 1830 hours respectively, having walked some 15 to 20 miles each.

We obtained a very good general idea of the area and upon our return immediately set out for the *Kista Dan*, arriving on board at 1930 hours. There we all met to discuss the day's work. I found that, on Monday, Thompson had landed the four scientists on "Magnetic Island" at 0700 hours to resume their work and had then made five unsuccessful attempts to land other men on some of the other islands. He was frustrated by a low tide and a fresh north-east wind which produced a surge on the rocks and iced up men and boat with frozen spray. These men were finally also landed on "Magnetic Island." The day's work was altogether highly profitable and a report is being prepared for publication. Last year's astrofix was repeated and confirmed; the magnetic station was reoccupied; gravity observations were made; extensive ornithological observations were taken and specimens of the rocks,

¹ Hansen, H. E., 'Atlas over dele av det Antarktiske Kystland.' Oslo, Grøndahl & Sons, Boktrykkeri, 1946.

soil, flora and lake water were obtained. An astrofix from the summit of "Magnetic Island" gave a position lat. $68^{\circ} 32' 39''$ S., long. $77^{\circ} 54' 27''$ E. The magnetic variation was 70° W.

In general the "Vestfold Hills" is a most interesting region. Covering about 300 square miles, this area is completely ice free in summer. Off-shore lie numerous small islands upon which, during the breeding season, several millions of Adélie Penguins breed. Great fjords, often frozen over, cut deeply back into the mainland rock, and in the valleys and depressions lie numerous ice-free lakes, most of which are salt. The coastal fringe of the mainland is completely covered by moraine debris and erratics, while the inland country rock consists mainly of medium-grained charnockite gneisses, criss-crossed with fantastic black dykes of dolerite. Few penguins come ashore on the mainland, most preferring to make their rookeries on the islands. This is probably because the sea ice breaks out to leave open water around the islands at an earlier date than around the mainland. The area is apparently lashed at times by gales of great force which cast salt spray in summer far inland. This is probably the reason for the salinity of the lakes and for the sterile nature of the soil. The only lichens found were well inland almost at the junction of the exposed rock and the rising continental ice sheet behind. The average height of the hills is about 400 feet above sea level and the general scenery, with the warm chocolate-brown rock, the blue and white semi-frozen fjords, and the paler blue-green ice-free lakes, is glorious. Off-shore, beyond the islands, lies an accumulation of thousands of icebergs grounded on the Four Ladies Bank.

The *Kista Dan* headed south from "Vestfold Hills" at 0430 hours on Tuesday February 1 and encountered fast-ice at 1015 hours, north of the "Larsemann Hills." The ice was hard and blue and from 3 to 4 feet thick. The ship could not break through it, but a lead was found which enabled the Captain to take the ship around to the east to approach the shore more closely, and at 1330 hours we tied up against the fast-ice about 12 miles off "Larsemann Hills." I decided to try a dash over the fast-ice to reach the coast, as the day was perfect, cloudless and calm, and the ice was far stronger and thicker than that over which we carried out all our unloading last year at Mawson. After lunch a Weasel, a caravan and a dog sledge were hoisted out and we selected the articles needed for a nine-man party. We planned to have the Weasel tow the caravan and hand-hauling sledge over the ice 12 miles to the mainland, to return to the ship, and to await my radio message to fetch us back again.

The main object of the journey was to obtain an astrofix on land which, with that already obtained at "Vestfold Hills," would enable aerial photographs of the whole Ingrid Christensen Coast to be accurately plotted. Such a fix is needed urgently by the National Mapping Section for its revision of the Australian Map of Antarctica, by the U.S. authorities who are endeavouring to plot information from the aerial photographs of U.S. Operation High Jump (1947) and by the Norwegian authorities whose charts of this area are inaccurately orientated because of the lack of ground fixes for plotting the Lars Christensen aerial photographs of 1937. We set out at 1730 hours in bright, warm sunshine, and perfectly calm weather. In the first quarter mile we ran through two weak spots in the ice, where the Weasel broke the surface and left a depression some yards wide filled with sea water. Half a mile from the ship we again were nearly held up by a similar break-through. Even the closest inspection, together with probing, failed to disclose these weak spots. When discovered, marker flags were placed as warnings for the return journey.

When about 2 miles from the ship we came across the first break in the fast-ice

—a crack about 2 feet wide filled with salt water. We could easily have crossed this using the bridging timbers we carried, but I was concerned that the crack might widen and leave us stranded on the other side. I was also worried by such major cracks in what appeared otherwise perfectly solid, fixed ice. I decided to have a close look at the whole situation. We therefore followed the crack along towards a group of icebergs and it narrowed to a gap only a few inches wide. However, for half a mile around the icebergs the ice was weak, with numerous cracks and blow-holes, around which were lying Weddell Seals. I did not favour the area as a critical point on our return route.

At this stage I climbed on to the roof of the Weasel with binoculars and surveyed the prospect ahead. From this position I could see blue water surrounding the rocky island which was my objective; all other rock outcrops within a reasonable distance were separated from us by suspicious looking cracks; and in general the situation looked much more tricky than it had from the ship. I considered it was not worth risking the loss of a Weasel and decided to return to the ship. On the way back we noted several small cracks which had not been there on our way out, and when only 30 yards from the ship the Weasel broke through and left a hole 8 feet long but somehow kept going and pulled out of it. We arrived at the *Kista Dan* at 2030 hours. After dinner, at about 2130 hours, the ice broke up for no apparent reason. There was no wind and no swell. In less than half an hour the whole area for some miles around the ship had cracked up. It was curious to see large disconnected floes drifting along, separated by wide lanes of water, each floe bearing the track marks of our Weasel.

Next day, Wednesday February 2, the Captain worked the ship in through the broken ice past our Weasel tracks towards the unbroken fast-ice, the object being to secure the ship and obtain a noon position. We stayed until 1616 hours and obtained a good fix, the Captain working out on the ice using an artificial horizon for his sextant. From this position we sailed for Sandefjord Bay and at 2000 hours we moored against an edge of fast-ice in the shadow of an ice front which proved later to be the terminal edge of the feature discovered and named "Polar Record Glacier Tongue" by the U.S. Authorities from Operation High Jump photograph. To the south could be seen rock outcrops behind massed icebergs. The rocks were apparently the islands of what are marked on the Norwegian chart as "Bilingen". I decided that, provided no open water separated us from them, it would be better to attempt to reach these islands by hand-hauled sledge than by Weasel, and that a landing here would do quite as well as a landing at the "Larsemann Hills." I therefore asked Bechervaise and his men to pack a sledge for a six-man party while Thompson and I set out at 2110 hours on skis to reconnoitre the fast-ice near the ship. We were away until 2315 and covered about 5 miles. We climbed onto the glacier tongue and found the surface good, with occasional small crevasses up to 2 feet in width. The fast-ice seemed solid, with a few new cracks less than an inch wide here and there but probably as stable as such floating ice can be at this time of the year. When Thompson and I returned we found that the ice at the ship, weakened by the ship's repeated charges to break a small harbour for itself, had broken up for about a mile southward. I decided to risk a sledge journey aimed at one of the islands 12 or 15 miles to the south. We would follow the glacier tongue for the first 8 miles and in case of a break out could return over the glacier tongue. If the ice were to break up, I hoped that either the ship could move in to pick us up or the ice would drift out past the ship.

Next morning, Thursday February 3, dawned with a dropping barometer, a

north-east wind, and heavy black clouds looming in the northern sky; but the expected storm did not arise and the day smoothed out into one of dull greyness, snow showers and a 20-knot wind. At 1730, in a snow shower, with bad visibility, our six-man party set off for "Bolingén" towing a sledge which, with its load, was estimated to weigh between 700 and 800 lbs. The party comprised Bechervaise, Shaw, Lacey, Crohn, Ward and myself. The pulling was hard and stops were frequent as we had to adjust ski bindings, or as skins came off the skis. At 2118 hours we had travelled 4.2 miles and had put up our third marker flag below the glacier tongue cliffs when we were forced to leave it and move out in a more easterly direction because our way ahead was blocked by a jumbled mass of icebergs, pressure ridges and water cracks in a region where at one stage numerous icebergs had been forced hard up against the eastern side of the glacier tongue.

From here on the task of finding a suitable route demanded my whole attention, for the sledge was too heavy for us to haul over obstacles, and pressure ridges had to be avoided. The area ahead was a maze of icebergs and most of the gaps between them were blocked by tumbled masses of ice. The islands could not be seen. I had thought that the surface on which we were travelling might have risen, to form a more permanent form of bay ice, but I was disappointed to find swell cracks with newly frozen sea water around these icebergs, so we were apparently still travelling over sea ice only a few feet above sea level. Shortly after midnight, in a dim and eerie half light, I set a course for a narrow but most distinctive gap between two large icebergs and prayed that it might not be blocked. We reached it at 0150 hours on Friday February 4, all very weary and hungry. We had been hauling for over seven hours and had partaken of only some lemon drink and a little chocolate. The light was too bad to distinguish surface contours and it was too cold for a meal in the open, so we decided to make camp and snatch a few hours rest. While Bechervaise supervised the erection of two small tents, Shaw and I skied around through the gap. To our delight we saw an island rock outcrop only about 2 miles ahead and decided to make it our destination instead of the more distant one originally envisaged. The gap itself did not reassure us. It was a mass of swell cracks, with much newly frozen black-ice and pressure ridges and some open water. A slight swell made the giant icebergs appear to heave and sag as one stood beside them on the gently moving sea ice. It was with some trepidation that we lay down to sleep in our tents in this area at approximately 0400 hours, but we were too tired to worry for long and slept soundly until 0800 hours.

It was 1130 hours when we left and successfully negotiated the ice of the Gap. Ahead within easy reach was our goal, but I was concerned lest swell or a change in the weather should break up the unstable ice in the Gap before we returned and cut off our only retreat path. We reached a small islet (later identified as that called "Lorten" on the Norwegian chart) at 1245 hours and found it surrounded by some 30 yards or so of black-ice. The rock was fringed with an ice collar 5 feet above the black-ice, indicating the high-tide mark, and beneath this collar the black-ice had melted and a few yards of open water lapped the rocks. A slight swell of 5 to 8 inches was noted.

The afternoon was spent on investigations at the island and at 1800 hours we pitched our camp on the highest bit of sea ice we could find. I did not wish to camp on the island in case the black-ice broke up and left us marooned. On the other hand, I could not find any large, thick ice floe or any accessible iceberg upon which to set our tents, so had to be satisfied with a site on fast-ice only a few feet above sea level which did not differ much from any of the rest of the ice around us.

At 2200 hours we received a warning by radio from the ship that strong winds and a five-foot swell there had broken up the sea ice for a mile or two along our outward track. We retired to bed at about 2300 hours in weather that appeared "set fair."

At 0300 hours on Saturday February 5 I awoke to find a fresh north-east wind blowing and snow driving horizontally past the tents. I awakened Peter Shaw (meteorologist) who agreed that the weather looked ominous. The possibility of a hurricane setting the whole area into heaving motion, with floes crumbling and icebergs rolling and crushing the sea ice to fragments, was not a pleasant prospect, so I woke the others and ordered a move onto the island. We worked fast and by 0430 hours we were on our way. Our new camp on the island was established by 0600 hours. The morning fined up, the gale did not develop, and the wind blew lightly from the east. Crohn closely examined the rocks of the island, Bechervaise collected lichens, Lacey took sun shots, Shaw and I assisted him and took panoramic photographs and Ward attended to the radio schedules with the ship. The island proved most interesting. Although it boasted no penguin rookery it was apparently used as a roosting place by moulting penguins whose guano had stimulated a prolific growth of lichens, algae and mosses. We decided to rename this small remote rock "Lichen Islet," and Lacey fixed its position as lat. $69^{\circ} 20' 0''$ S., long. $75^{\circ} 31' 58''$ E. The magnetic variation was found to be 71° W. In contrast to the "Vestfold Hills" region, the island was free from erratics and glacial debris. The country rock consisted largely of medium-grained biotite para-gneisses, grading locally into biotite hornfelses, and showing irregular folds. Occasional veins of glassy quartz were noted but there was a complete absence of basic dykes.

On the sledge journey we saw numerous MacCormick Skuas and Wilson's Petrels. Groups of Emperor Penguins were passed at intervals, fourteen to twenty in each group, standing patiently like passengers waiting for a bus. It was evident that there was an Emperor rookery somewhere along the coast to the south of the island. Several Snow Petrels were seen and from the summit of Lichen Islet I discerned a Giant Petrel alight on a seal carcass and chase off the skuas. Some fifty Weddel Seals were counted on the sea ice to one side of the island. The tidal rise was about 4 feet. Lacey had barely completed his noon observations when the sun disappeared behind cloud and did not reappear. I decided to return and we began to pack up; we heard from the ship that they would push in towards us through the broken-up ice. It was 1730 hours when we left, the temperature had risen and the snow was thawing. This and the slight swell visible on the rocks made me wonder in what condition we would find the ice at the gap, and we made a fast run across the ice to this landmark. Fortunately, the way through it was clear in spite of some newly formed cracks and we could see the ship dead ahead in the distance. Its change of position had not only shortened our return route but had straightened it out, so that we could proceed direct and avoid the difficult route through the maze of icebergs. As the evening wore on and the temperature fell, the hauling became harder, but we were no longer troubled by irritating delays due to skins and ski-bindings and made good progress. When we were 3 miles from the ship the fast-ice began to deteriorate. First there were fine cracks, then wider ones, finally cracks 2 feet to 6 feet wide which opened and closed with the swell. The surface of the ice was 18 inches above the water and the floes about 5 feet thick. We crossed any cracks less than 3 feet wide and detoured around wider ones. Occasionally we were forced to wait until two floes drifted together before we could cross the intervening gap. Slowly we approached the *Kista Dan*, and fortunately

the weather remained clear and fine. Most cracks were at right angles to our path and over the last half mile the floes were held together by the ship, which pushed its bows against them and steamed steadily to stop the cracks from broadening. We were taken on board at 2315 hours, cold and hungry but very satisfied with the results of our journey, which had showed me that unless the absence of fast-ice at some future date permits a ship to sail through open water to the coast there is little chance of any person reaching this group of islands, unless by helicopter. The treacherous nature of the sea ice in summer and the tumbled confusion of the icebergs and pressure ice provide an almost insuperable barrier to any curious adventurer.

On Sunday February 6 the ship began to push out of the ice at 0625 hours en route for Sandefjord Bay. This took much longer than we expected and we did not reach open water off the tip of the "Polar Record Glacier Tongue" until 1300 hours. We sailed around the glacier tongue and found fast-ice and pack ice jammed across the lower end of Prydz Bay. The entrance to Sandefjord Bay was seen to be as narrow as five or six times the height of the ice cliffs forming it. The whole area before and behind this entrance was cluttered up with icebergs and tumbled sea ice and appeared quite inaccessible to any ship. Judging from what I had experienced on the other side of the glacier tongue it would not be practicable for a party on foot to penetrate into Sandefjord Bay. I was very sorry we had no aircraft, for the open water here would have permitted a most valuable flight. The weather was mild, calm and overcast, with occasional snow showers. At 1615 hours the ice front of the "Amery Ice Shelf" ⁴ was visible and soon the ship swung to the north to follow it. The ship's officers commenced an accurate plot of the ship's course and of the coast in relation to it, using the radar, and I set Elliott sketching the radar screen at regular intervals. Soundings were taken continuously. After dinner we passed through some pancake ice, the first for the voyage. We pushed on until 2247 hours when lack of light forced a stop. There was no ice thick enough to moor the ship so the engines were kept going all night. At this stage we were lying off the point where the ice shelf swings westward into MacKenzie Bay.

On Saturday February 7 the ship started at 0610 hours and picked up the corner of the ice shelf again. Shortly after, the Captain asked me to join him in the crow's nest. He pointed out that the ice was thickening ahead and looked far from promising. At 0800 hours we began to push very heavy pack ice and I began to doubt whether we could continue for much longer. However, from the crow's nest the Captain saw a weakness in the ice and broke through to the south-west to reach open water right against the ice shelf. This was indeed a triumph and we proceeded very happily in the assurance that we could now complete the charting of the whole coastline in this region. Once again I wished that we had an aircraft! From 1000 hours until 1700 hours we followed the coast in open water. The sun came out and permitted an accurate fix of our course and, with radar distances, depth-soundings and photographs, we made the most of our opportunity. At 1400 hours we passed the south-west corner of MacKenzie Bay and found it to be the point of junction of the "Amery Ice Shelf" and the continental plateau. We proceeded nearly three-quarters of the way up the western coast of MacKenzie Bay toward Cape Darnley until at 1700 hours we were forced to leave the coast and turn seawards by a belt of heavy pack ice, icebergs and fast-ice. This great accumulation of ice was assumed to mark the southern limit of the Fram Bank. By midnight on Monday we had rounded Cape Darnley in open water, passed north of the Fram Bank, and were proceeding westward towards Mawson. On Tuesday we were about

60 miles north of Mawson at 1400 hours and turned south. At 1630 hours we first saw the plateau and the ranges behind Mawson; we met open pack ice at 1650 hours and dense pack at 2000; and we stopped in ice for the night at 2153 hours. On Wednesday February 9 the ship pushed on at 0600 hours and at 0830 hours broke free of the pack into open water and steamed towards Mawson. We dropped anchor just outside the harbour at Mawson, at 1155 hours.

As a result of fine weather, unusually good ice conditions and the skill with which Captain Petersen handled his fine ship *Kista Dan*, we had successfully explored some interesting ice-free regions of Princess Elizabeth Land, obtained valuable scientific data and carried out a running survey of the west coast of Prydz Bay. As a result of the astrofixes obtained at "Vestfold Hills" and "Lichen Islet" during this voyage, and at Scullin Monolith and points as far west as King Edward VIII Gulf by Robert Dovers during 1954, it is possible now to correct the detailed Hansen aerial charts of the Antarctic coast from Princess Elizabeth Land to Enderby Land.