

Mawson 1954 Southern Reconnaissance

Daily Journal : Southern Journey to Prince Charles Mountains

by Robert George (Bob) Dovers (leader and surveyor), 1954/55

(verbatim copy of Dovers' journal with the exception of maps and corrections to typographical errors and the clarification of names, dates, cloud type and comments enclosed thus [])

Thursday 2 December 1954

Weather : Barometer 29.47inches, Temperature 33°F, Wind 30knots/115°, light surface drift, 3/8 Cirrus/Cirrostratus with Altostratus forming to South.

Snow conditions : Usual blue ice conditions up to Mount Henderson Depot with the last half mile old sastrugi with a covering of fresh snow.

The dogs left camp at 1045 hours driven by myself, the Weasel [#3 of five M29 Studebaker Weasels originally purchased by ANARE and the last of the three taken south in 1954, after #1 sank near Scullin Monolith and while #2 made it ashore it caught fire when back at Mawson] driven by John Russell with Jeff Gleadell as a passenger followed. The dogs were unable or unwilling to pull the sledge up the first ice slope to the plateau so to save time and effort we hitched an alpine rope from the Weasel to the dog sledge and went on to the Depot with the Weasel towing the dog sledge whilst the dogs pulled as they wished. They very soon learnt to give the towing rope a wide berth and not lag behind.

We arrived at the Depot at 1530 hours. There was a moderate surface drift about the Depot so we decided to camp there the night and move on in the morning, weather permitting.

We loaded onto the Weasel sledge five 44 gallon drums of petrol from the Depot which with the one from Mawson made a total of six. We also loaded three bags of cut seal meat with which to feed the dogs enroute.

Checked the Astro compass of the Weasel and found the latitude adjustment damaged and the compass reading 19 degrees off the azimuth circle. Repaired and adjusted both.

We camped and slept in the Weasel. Radio contact was not made with Mawson due to the shielding effect of the Depot rocks but we received Mawson strength 5.

Friday 3 December 1954

Weather : Strong SE breeze with light surface drift in the evening, 3/8 Cirrus/Cirrostratus. Temperature (2000 hours) - 7°C.

Snow conditions : First ten miles east of the Depot generally whitish ice with small crevasses occasionally. Thence there was old consolidated sastrugi and new drifts for 15 miles south east. In general this was good Weasel running.

We got underway at about 0700 hours and headed east with the dog team leading with the Weasel following at about half a mile as a precaution against crevasses missed by the dog sledge for the first three miles. After this we abandoned skis and travelled in the Weasel watching from the navigation trap.

The only area of any difficulty was that immediately east of flag D3 where there is a zone of old crevasses in blue ice for ½ mile. Here it is necessary to follow some of the larger crevasses off course to find the best crossings. This area is fairly safe for a Weasel as long as there is no snow cover and the crevasses can be clearly seen, however with snow cover it could be quite dangerous as many of the bridges are weak and the crevasses in places large enough to take a Weasel.

At flag D6 we encountered plateau snows (limit of the ablation area) and were travelling over these conditions most of the day.

We stopped at midday for a meal, and every hour and a half to rest the dogs. Stopped to camp at flag D17 at 1830 hours. The dogs were fed seal meat. Weasel refuelled. Consumption from Mawson to here 17 gallons or 2.2mpg. Marker flags were placed every mile to flag D12 thence every two miles. Present position Latitude 68°01'S, Longitude 63°38'E.

Radio : No contact - heard Base about strength three but they did not hear us.

Seven skuas visited us tonight and one Wilson petrel flew around the Weasel most of the afternoon.

Saturday 4 December 1954

Weather : Temperatures -7°C (day) -13°C (night), Wind 20-25knots/155° most of the day with light surface drift but still at evening. Cloud 3/8 Cirrus/Cirrostratus.

Snow conditions : We have been on plateau snow all day. We encountered two zones of small crevasses which were negotiated without difficulty by the Weasel. Very good surface and only very light sastrugi.

We got underway at 0900 hours with the dogs leading the

Weasel. At this stage it was our intention to go to forty miles from Mount Henderson at which point we would depot our load of petrol.

We encountered two zones of crevassing both on northerly slopes. They were indicated by faint open cracks in old neve and it was difficult to tell what they represented. The only way to find out whether they were negotiable or not was to drive the Weasel over them which we did. At 38 miles from Henderson I was about half a mile ahead of the Weasel with the dogs as usual chasing a crest ahead that could be anything from half a mile to ten miles away when looking back I saw the Weasel halted with Russell and Gleadell outside signalling a halt. I turned the dogs back and rejoined them. The last thing I had expected was what had happened. The left hand track had broken completely and was on the ground. This would have been understandable if the going had been rough but it had been particularly easy all day and the track had been subjected to no undue strain at the moment of fracture. We jacked up the Weasel and cleared the broken track. Whilst Russell jacked up the springs Gleadell and I patched the broken track with lengths of steel wire rope clipped on with bulldog grips. We were not very confident of success as the track was completely broken. By 2000 hours we had the repaired track remounted on the Weasel.

After eating and making radio contact with Mawson we got underway with the idea of testing the broken track and making a few miles homeward. However our repaired track made exactly ten yards before failing completely again. Russell cannot think of any way of patching the track and neither can I. So we will have to return to Mawson by dog sledge and bring up a new track by the same means.

We have depoted here five 44 gallon drums of petrol, one bag of dog food and the Weasel complete with its associated stores. This confirms my opinion of Weasel travel. They should never travel singly.

We saw two snow petrels today.

Radio contact with Mawson good.

This spells finis of our elaborate southern journey plans as it was the time schedule was very tight, now I cannot see the Weasel in action again until mid December.

Pity. But there it is.

Sunday 5 December 1954

Weather : Barometer 29.37inches-rising (flag D25). Temperature -7°C. Wind 20-25knots/120°. 5/8 Stratocumulus, 3/8 Altocumulus. Very slight surface drift.

Snow conditions : Unchanged.

We slept in late in the Weasel and did not get underway until 1000 hours. We began with Russel and myself on the dog sledge and Gleadell following on skis. However after twelve miles Gleadell was tiring and tailing behind so thenceforth we three travelled on the sledge. As the running was mainly a gentle down grade, most of the day the three of us were on the sledge all day. I had decided to do 25 miles and camp but when the 25 miles were done the dogs were still fresh so we went right through to the Henderson Depot completing the 38 mile run at 2000 hours.

We stopped at 18 miles where we roughly pitched the tent and cooked a light luncheon. This halt took up an hour and a half which gave the dogs a good long spell.

We had no trouble following the route back since most of the time we ran in the Weasel tracks. We put in a few supplementary flags near the Fifty Mile Depot (where the Weasel was abandoned).

Total load on the sledge counting the three men would have been in the vicinity of 700 pounds, possibly a little more.

We made wireless contact with Mawson tonight with the sledge set and asked them to prepare a new track for the Weasel by cutting off the rubber grousers.

We saw one Wilson petrol about 4 miles east of Mount Henderson.

The Henderson Depot seems to have been chosen as its merits of being the windiest corner in these parts. There always seems to be drift and wind about it.

The weather seems to be deteriorating tonight, worse luck since we will need good visibility to descend to Mawson tomorrow.

Monday 6 December 1954

Weather : Drifting fairly at the Depot with a 30 knot wind. 8/8 Stratocumulus. Clearer conditions at Mawson.

Snow conditions : Unchanged.

At the beginning of the day the weather was very thick. Visibility was restricted to about 50 yards with occasional lulls. After breakfast we tidied up the caravan and then

delayed departure waiting for the weather to ease, which it did towards midday.

It was still drifting when we left the Henderson Depot but we ran out of the drift as soon as we passed the north west corner of Mt Henderson. The drift about the Depot seems almost local in character.

The only trouble on the descent was trying to follow the faint scratch of the brake of the Weasel sledge on the blue ice. With generally overcast conditions and poor light visibility was very trying.

The dogs gave no trouble on the steep descent and I was able to hold the sledge with the foot break. On the contrary they were overcautious for whenever the sledge showed the least sign of overtaking them they would move over to one side, stop and hold it on their traces.

We reached Mawson without event at 1600 hours.

So ended Stage one of the southern journey with a major reverse.



Australian National Antarctic Research Expedition (ANARE) M29 Studebaker Weasel #2 in February 1954
(courtesy Australian Antarctic Division).

Tuesday & Wednesday 7&8 December 1954

No entries

Thursday 9 December 1954

Weather : Fine, calm and clear. A little Stratocumulus in the evening breaking up then disappearing.

Yesterday Russell took the new track for the Weasel over the first two slopes to Henderson with the Ferguson tractor.

Today we left camp at 1130 hours with two teams of dogs, Bob Summers and self with the leading team and Macey and Schwartz with the following team. Despite the lightly loaded sledges, we had a little difficulty with the first two slopes and each team needed a man on foot on crampons pulling on a lead rope to help them up. We loaded the track on my sledge whilst loaded on Schwartz's sledge were the rations, fuel, etc for the trip.

We arrived at the Henderson Depot at 1500 hours and after loading food and fuel from the Depot, the weather being excellent, we pushed on. We reached flag D11 (25 miles from Mawson) at 2100 hours where we pitched two tents and made camp. We had no trouble at all and travelling conditions were perfect. We did not bother carrying on the sledge wireless set from Henderson as we had the SCR 694 set at the Weasel.

Loads on sledges would be 700-800lbs on mine and 500-600lbs on Schwartz's, this counting the weight of two men riding on each sledge.

No birds were seen enroute.

Open water now clearly visible to the north of Mawson.

Friday 10 December 1954

Weather : Fine. Wind 15knots/150°. Very slight surface drift to calm in the evening. Heavy bank of Stratocumulus to the north.

Snow conditions : Still unchanged.

Broke camp at 1030 hours and headed for the Weasel. A very uneventful journey. We propped up the tent at 1300 hours to have coffee and biscuits out of the wind then got underway again. We reached the Weasel at 1630 hours. Schwartz and Summers put up a tent immediately whilst Macey and I began to replace the broken track of the Weasel. By 2030 hours we had the new track mounted and the Weasel was once more serviceable.

The surface was very good and all the marker flags were still standing.

Radio contact with Base was very good. We received an urgent message from Russel (in charge at Mawson) reporting an accident with the Ferguson tractor to Storer who had an

injured wrist with a suspicion of a fracture.

It would not be practicable tonight as the dogs need rest to return but given weather we should be back at Mawson tomorrow night with a fresh start tomorrow.

Prior to this the intention had been that Summers would remain here with the dogs and I would return to Mawson with the Weasel where I would pick up Bruce Stinear and rejoin him with the Weasel. Now we will all be returning to Mawson together.

One Wilson petrel was seen at about Latitude 68°S.

Saturday 11 December 1954

Weather : Fine, cloudless, with a slight surface drift. Wind 15knots/150°. Visibility 20 miles.

Snow conditions : Unchanged.

Our departure was delayed due to a leaking cylinder of rock gas poisoning Summers and myself who were sleeping in the Weasel cabin. Both the regulator tap and the needle valve on the cylinder were faulty. We had detected a faint odour of gas on the earlier trip but put it down to a leaky regulator tap, allowing the small residue of gas in the feed tube to leak out, and counted on the needle valve of the cylinder to shut off the main supply. What saved us from a tragedy was that the cylinder was in the cargo compartment screened off from the cabin by the three ply bed boards and the sponge rubber mats. Summers was the main sufferer, he had a violent headache and felt very sick. I had a more delayed reaction later in the day. We both took about five minutes of oxygen which had a beneficial effect.

We finally got away at 0900 hours, I was driving the Weasel with Macey at the navigation trap whilst Summers and Schwartz followed the Weasel each driving a practically empty sledge.

The return was quite uneventful following the old Weasel tracks back to the Henderson Depot. We had two vapour locks in the fuel lines of the Weasel on the return journey.

We arrived at the Henderson Depot at 1730 hours. Here we pegged out No.1 dog team and gave each dog four days ration of seal steak.

We left at Henderson Depot all gear for the southern journey including the dog sledge of No.1 team which was stowed against the caravan and strapped down. This done we descended to Mawson with three in the Weasel and Schwartz driving his empty sledge behind. About halfway down we loaded the dog sledge onto the Weasel roof and allowed his dogs to run free. They were so tired that we had to carry three of them in the Weasel

cabin.

We arrived at Mawson at 2000 hours thus completing what could have been with adverse weather conditions an annoying operation.

On the return journey passing the crevassed zone between flags D4 and D3 we made a slightly more southerly route than usual and found it an easier one than that used previously.

TWO DAYS SPENT AT MAWSON MAINLY FOR WEASEL OVERHAUL BY RUSSELL.

Monday 13 December 1954

Weather (2100 hours) : Barometer 27.21inches (Altitude 2130 feet), 3/8 Altocumulus and a little Cirrus. Wind 15-20knots/150°. Faint surface drift. Fine.

Snow conditions : Marked sun effect on the ice between Mawson and Henderson. Angled at about 24 degrees elevation NNE in small sharp thaw planes. Snow conditions after Henderson to flag D6 unchanged.

We spent the morning at Mawson loading stores and finalising arrangements. We had lunch at Mawson and left southward at 1445 hours, the party consisting of myself, Bruce Stinear [Geologist] and Bob Summers (Medical Doctor). We arrived at the Henderson Depot at 1630 hours where we loaded our two Weasel sledges and the dog sledge with the balance of stores for the southern journey. By placing the spare Weasel track on edge in an open circle on the Weasel sledge we were able to pack our loose stores securely within its perimeter. The dogs who had been alone for two days seemed glad enough to see us again but showed no signs of having greatly worried over our absence. One dog (Harbottle) had broken loose but apart from stealing a block of seal meat from the Depot had kept out of mischief.

We left the Depot at 1830 hours, I was driving the Weasel with Stinear at the navigation trap. Since it was difficult to persuade the dogs to leave a land of plenty like the Depot, Summers drove the team behind the Weasel.

In passing the crevassed zone after flag D3 we somehow worked too far north and missed flag D4. However by driving south west we picked up flag D5 and from there thence to flag D6 where we made camp for the night. We were still able to follow the old Weasel tracks without difficulty. The Weasel once more suffered from a vapour lock in the fuel lines but it was readily cleared. Apparently Russell failed to locate the cause of this.

Typical plateau drift blew up in the late evening.

Radio contact with Mawson was satisfactory at 2100 hours.

One Wilson petrel seen at flag D5.

We used the experimental propane cooker sent out from France for trials. This is certainly the most convenient and satisfactory Primus that I have ever used and if it proves economical in fuel it should prove first class equipment.

Tuesday 14 December 1954

Weather (2130 hours) : Thermometer -7°C . Wind 25knots/145°. Cloudless. Fine.

Snow conditions : Unchanged since the last visit. The Weasel track is still showing clearly. Light old sastrugi with occasional dunes of softish new snow. Only minor crevasses seen in the neve. Dune bearing 122 degrees.

We left flag D6 at 0900 hours. To benefit from the speed of the Weasel we let the dogs run free and dragged the dog sledge as the last item of the Weasel train. Thus the three of us travelled in the Weasel.

At first we had a little trouble with the dogs who divided into two factions; those who wished to follow the Weasel and those who preferred to stay exactly where they were. This was arranged amicably however when we attached the bitch (Dee) to the rear sledge and all decided to follow. The only further hitches occurred when we passed any of our old camp sites. Here, invariably, one of the dogs would find something of such absorbing interest that he would forget to trot along with the rest and at about a mile further on we would be obliged to pull up to give the offender time to catch up.

We had further troubles with the Weasel most of the day with vapour locks in the fuel lines, which occurred three times. There was a dry grating sound from the gear box at one stage but when I took off the cover plate I could find nothing amiss.

We stopped at 1130 hours for a radio sked with Mawson. They are having a cloudless windless hot day. Whilst making the sked we lunched and gave the dogs a rest. We then moved on to Fifty Mile Depot arriving at 1730 hours. Here we spent two hours reloading the sledges and packing up the Depot. I serviced the Weasel. Fuel used for speedo reading fifty miles 23 gallons and I added 1 pint engine oil and 1 pint premixed glycol. We fed the dogs on seal meat.

Depoted here are the following : 35 gallons of petrol, 50lbs dog pemmican, 60 man days rations, one 4 inch short bridging

timber and one smashed Weasel track. The fuel in a 44 gallon drum of petrol stood on top of an empty 44 gallon drum. The seal meat and dog pemmican are on top of the fuel. The man rations are buried three yards west of the petrol drums and marked with a black dural flag.

The dogs are in excellent health and not unduly tired.

We made radio contact with Mawson tonight but conditions were too poor for traffic.

There is the usual evening drift.

Carried forward are seven bags of seal meat, 220lbs of dog pemmican, fifteen twelve man day rations, 220 gallons of petrol, four gallons of engine oil, two gallons of transmission oil, one Weasel track and two short bridging ends.

We saw several Wilson petrels during the day and one Wilson petrel at the Fifty Mile Depot.

Wednesday 15 December 1954

Weather : Temperature -11.5°C . Wind 15knots/ 150° . 1/8 Stratocumulus in NE. Fine. No drift.

Snow conditions : Easy running on very light, hard sastrugi. Gently undulating rising ground. Occasional patches of minor crevassing near crests. Occasional dunes bearing 125 degrees, sastrugi bearing 150 degrees.

We broke camp at Fifty Mile Depot at 1000 hours and with the three of us in the Weasel and the dogs trotting alongside we began to run down a course of 165 degrees. However an ice ridge ahead forced us over east and though we ran a course of 170 thereafter our longitude observation put us east of our dead reckoning position. This is probably due to the habit of turning down east when crossing dunes or large sastrugi.

We made a latitude observation at midday and longitude observations at Fifty Mile Depot and at flag E9.

We made good radio contact on the 1130 hours sked and cleared traffic. We lunched at 1300 hours. At E9 we refuelled the Weasel (16 gallons) and depoted the residue of the drum. We finished the day at flag E10 with 38 miles run for the day and 88 miles from Mawson.

We had very little trouble with the dogs today. We took Dee into the Weasel for the last ten miles as she was beginning to tire which was not surprising since all day she had been pulling her heart out against the sledge to which she was tied.

The only Weasel trouble has been persistent vapour locks in

the fuel lines. All the suspension is in good condition.

Stinear and Summers have been acting as navigators on the Weasel over the past two days whilst I drove.

We fed the dogs on seal meat tonight.

Three snow petrels and one Wilson petrel were seen in Latitude 68°14'S flying south.

Radio contact was made with Mawson at 2100 hours but there was too much QRM [radio noise] for satisfactory traffic.

E10 is only six miles from the supposed position of the two outliers of the southern mountains but so far we have seen nothing except steadily rising undulating plateau snowfields. Our present altitude is about 5200 feet.

Thursday 16 December 1954

Weather : Temperature -8.2°C. Wind 15-20knots/135°. 8/8 cloud mostly Stratocumulus. Faint ground drift. Fine.

Snow conditions : No travel today.

The visibility was very poor today, with no sun for azimuth. We decided to wait a few hours as it showed signs of clearing and travel under present visibility promised to be very difficult. By midday it remained unchanged so I decided against travelling. We passed the afternoon digging a hole to take snow temperatures at depth. Our aim was ten metres but the most we could make was seven metres. After a little experimentation with the dural wireless mast we found with a bamboo extension bolted on, we could bore a hole rapidly to a depth of five metres. Temperatures were for comparison, at a depth of five metres -27.3°C and at a depth of 7 metres -28.2°C. As a result of this experiment we decided to take a series of temperatures at the five metre level throughout the trip.

I did a little work on the fuel lines of the Weasel, all of which are leaking badly. One source of leaking petrol is the fuel pump which is spraying a fine mist of petrol through the breather hole. On taking this pump apart I was horrified to find it was an old friend - the original electric fuel pump of No.2 Weasel which had been rejected from that machine prior to the Scullin Monolith trip. True Russell had since repaired it but... However we were carrying a spare petrol pump in the sealed tin of mechanical spares or at least were supposed to be. The first casual search failed to discover it. We turned the Weasel inside out but still no pump. It was not present. So back went the patched up pump.

Radio contact made with Mawson on each sked. We queried

Russell about the spare petrol pump but he assures us it is in the Weasel spares.

No birds were seen today.

Dee on heat served by Snowy. Dogs fed seal meat tonight.

A clear patch of sky developed in the east but it did not move over so visibility remained unchanged.

Snow section in the hole is first new drift fading into neve which becomes increasingly coarse with depth. At regular intervals small ice planes were encountered which I take to be the summer surface of successive years.

The ground drift which was imperceptible on the surface was most noticeable working in the snow hole where we were covered with line drift snow.

I repaired a broken pressure flap on the survey camera.

Friday 17 December 1954

Weather : Temperature -7.6°C . Wind 5knots/ 150° . 4/8
Cirrus/Cirrostratus and Altocumulus.

Snow conditions : Sastrugi now becoming heavier. Occasional dunes bearing 180 degrees. Surface softish. High ice ridges heavily crevassed lie in about Latitude 69°S , Longitude 64°E .

The weather cleared by 0800 hours and we were underway at 0930. At 1130 we were at Latitude $68^{\circ}45'\text{S}$, Longitude 64°E . On the radio eked we reported no sign of the supposed outliers of the southern mountains. However shortly after at Latitude $68^{\circ}47'\text{S}$ we sighted a sharp mountain peak to the south east which I roughly fixed as lying in Latitude $69^{\circ}05'\text{S}$, Longitude $64^{\circ}43'\text{E}$. In order to obtain a navigational fix on this we continued south along the 64th meridian taking cross bearings every five miles. At Latitude $68^{\circ}55'\text{S}$ flag E14 the way southward was barred by a series of crevassed ice ridges. At this point we turned direct to the mountain now clearly visible on a course of 121 degrees. We stopped and camped at Latitude $68^{\circ}58'\text{S}$, Longitude $64^{\circ}13.5'\text{E}$. The total run for the day was only 27 miles. Observations for longitude were made at E10 and E14 and a noon latitude made at 0.3 miles south of E11.

The dogs gave quite a lot of trouble today, what with Dee on heat and several inveterate raiders of the seal meat supplies, but their nuisance value paled to insignificance against the constant fuel blockages of the Weasel. With increasing altitude and easy vaporisation of petrol any fault in the pump or fuel lines became critical and we found ourselves halted every three miles with a vapour lock to clear.

Radio contact was excellent 4 X 5 in the morning and 5 X 5 in the evening. We asked Russell's advice on our fuel troubles. We sent off a press progress report and received a personal cable from Stinear.

A Wilson petrel was with us all day to Latitude 68°58'S. One Skua seen in Latitude 68°45'S.

From here the new mountain looks quite impressive and appears to have a level strata with a flat table top. Stinear is naturally hopeful that that the structure will prove to be sedimentary.

Crevassing may prove a problem tomorrow.

Saturday 18 December 1954

Weather : Temperature -7.6°C. Wind 30knots/150°. Slight surface drift. 1/8 Cirrus/Cirrostratus in east, 2/8 Cirrus/Cirrostratus in west.

Snow conditions : Sastrugi getting higher and occasional patches of soft fresh snow. Minor crevassing encountered two miles short of the mountain.

We left our overnight camp and headed on the direct course to the mountain. Almost immediately fuel troubles developed to the same pattern as of yesterday. We had an enforced halt whilst I made temporary repairs. Whilst this was going on Summers and Stinear bored a five metre hole and took neve temperatures at that depth.

We then proceeded on in fits and starts until we reached a point two miles short of the mountain. Here we began to see evidence of crevassing in the form of small crevasses and cracks in the neves. As we are now very close to the mountain there is not much point in driving the Weasel any closer over doubtful ground so we made camp at this point with the intention of visiting the mountain by dog sledge in the morning.

We had a Wilson petrel with us most of the day and saw a snow petrel near the mountain.

Radio conditions were excellent on both skeds and we had no difficulty in making contact and passing traffic to Mawson.

Our future plans are rather in the melting pot. The crevassing visible to the south coupled with the Weasel fuel problems seems to indicate that the next leg after an examination of the mountain might best be done with the dog team.

Sunday 19 December 1954

Weather : Temperature -10°C . Wind 35-40knots/ 150° . Medium surface drift. Cloudless - trace of Cirrostratus in north.

Snow conditions : No change.

There is too much drift today to do any serious work. In the morning I packed up the dog sledge ready for use, for it was our intention to visit the mountain the moment the drift let up. This done we decided to work on the Weasel engine. We carried out a major rearrangement of the fuel lines and on completion we could discern no further leakage. We were fortunate in finding still attached to the mechanical pump a double ended flexible lead which helped. This done we dismantled the electrical pump and changed the diaphragm.

Unfortunately our fuel troubles are only evident when the Weasel is working under load so to test the machine we were obliged to run it about two miles towing full loads. This we did but the trouble reoccurred. There must be a leak on the suction side that we have not located.

Radio contact was good both skeds.

We fed the dogs seal meat.

Two snow petrels were seen during the day.

Monday 20th December 1954.

Weather : Temperature -8.5°C . Wind 35-40knots/ 150° . Cloudless with a trace of Altocumulus in the east. Moderate surface drift.

Snow conditions : No visible change.

Today has been a similar day to yesterday with the drift making it not worth the trouble going over to the mountain. I took a fresh latitude observation in the lee of the Weasel. This done the rest of the day was spent continuing the battle with the Weasel fuel system. The crux of the problem is the inefficiency of the electric fuel pump which I now recognise as the one rejected from No.2 Weasel as being inefficient. The plate holding the rubber diaphragm is die cast metal and is threaded to screw home on its shank thus sealing the diaphragm. Russell repaired this when the thread stripped, replacing the rubber but then could only secure the die cast plate with a blob of solder on the brass spindle so that now the fit is loose with a leaking diaphragm. After a little experiment we decided the die cast could not be securely attached to the spindle and we replaced it with a brass plate that could be soldered. We cut the plate out of an old thermostat and hand filed it to the required shape. We

reassembled the pump, first replacing the old rubber diaphragm. The main evidence of a leaky diaphragm is petrol spraying from the breather hole of the pump. As far as we can see this is cured but it was too late to give the machine a full load trial when we had finished.

We also investigated the possibility of remounting the mechanical pump but were beaten by the amount of pipe and the unions required. This constant fuel trouble is taking all pleasure out of the trip.

Radio contact made both skeds. Conditions were only fair.

One snow petrel seen tonight.

The dogs were fed seal meat.

Tuesday 21 December 1954

Weather : Temperature -12.0°C . Cloudless. Wind 40-45knots/ 150° . Moderate to intense surface drift. Visibility ten to twenty yards.

Snow conditions : Not greatly changed. The old Weasel track is still showing.

It was quite useless going over to the mountain in today's weather and we remained in the Weasel cabin most of the day. Apart from checking our navigational charts and marking our true route on them there was no work done today.

The dogs were fed on seal meat. All the dogs managed the drift well except Dee (the bitch on heat) who was drifted and frozen in tonight and had to be cut out. A bitch on heat always suffers in drift and there is not much that can be done to help them.

No birds were seen.

The experimental propane Primus has now done 13 hours of cooking.

Radio contact with Mawson was only fair on both skeds. There was remarkably little drift interference which I put down to the fact that the antenna was mostly buried in drift.

Wednesday 22 December 1954

Weather : Temperature -10.5°C . Cloud 7/8 Stratocumulus. Wind 20-25knots/ 150° . Moderate surface drift and snowfall.

Snow conditions : No great change but the Weasel track is gradually being buried and cut away in places.

We woke to find the usual conditions of fairly strong wind and steady drift with very limited visibility.

Both of the Weasel sledges and the dog sledge were well drifted in so we started the Weasel and after digging them out towed them clear. Having nothing else to do, we decided to give the Weasel a full power test towing both sledges back along the old Weasel track which we could just see in the drift. Results were just as bad as ever.

We spent the rest of the day pulling down petrol lines and pump again. We located another possible source of trouble in a badly soldered original joint on the petrol tank. This we pulled apart and resoldered. This was an annoying job in itself as we have only resin cored solder and this pipe is in mild steel. The trouble is that the cause of our troubles is not a single fault which we can locate and remedy, it seems to be the sum total of a lot of inefficient parts and we cannot succeed in getting enough petrol through to meet the requirements of full power at this altitude.

The dogs were fed seal meat.

Radio contact was good at 1130 hours but poor at 2100 hours.

Thursday 23 December 1954

Weather : Temperature -8.8°C . Cloud 7/8 Stratocumulus. Wind 5-10knots/150°. Fine.

Snow conditions : Crevassing between Weasel camp (flag E18) and the mountain extensive and complicated but not dangerous. However I consider it a doubtful proposition for a Weasel.

The day started off very badly with drift and snowfall and a 35 knot wind but by midday it began to clear. Summers and I went on foot looking for a suitable crevasse to take a thermometer down about fifty feet and eventually found one. By the time we got back to the Weasel the drift was easing and Stinear had lunch ready. Once lunch was over we loaded the dog sledge and drove over to the western face of the mountain. On the western side there is a great wind swept ice valley with near vertical ice faces falling down to a flat floor against the rock faces of the mountain. The valley can be entered from the north western end. On the eastern face the plateau snows have drifted up to the level of the top of the mountain and all but the sharp high central peak can be gained on foot. We left the dogs at the north west corner and walked along the western side of the rocks around the south end of rock and climbed up the drift to the top of the mountain on the eastern side. From here we had an excellent view of the surrounding country except in the west south west sector where a high ice ridge cuts out vision. Due south (234 degrees magnetic) we could see a large dark mountain anything between 40 and 80 miles away with a string of smaller mountains trending away to

the west south west. These are no doubt the range reported by the National Mapping Section rather well out of their reported positions.

The intervening country does not look too bad though there are a number of crevassed ridges to avoid.

At about twelve miles (192 degrees magnetic) there is an ice ridge with a small rock exposure showing just at the top.

I could see no evidence of the low lying land reported by the National Mapping Section. The general plateau level all around is between five and six thousand feet altitude.

The mountain itself is a gneissic formation in the form of a narrow wedge running north south. Stinear was rather disappointed that he found no new rocks.

There are a few nasty little crevasses in a patch of blue ice immediately west of the north tip of the mountain which we discovered taking a short cut back to the Weasel on return.

I measured a short base at the Weasel tonight from the ends of which I read angles and stereophotographed the mountain.

The dogs were fed seal meat.

Two snow petrels were flying round the mountain all afternoon which seems to suggest that they might have nests here.

Radio contact was good on both skeds.

When we pulled out the inertia thermometer from the crevasse we found that the alcohol thermometer provided by Loewe was broken. We have replaced it with one of my red alcohol filled sea ice measurement thermometers.

Friday 24 December 1954

Weather : See weather record. Fine and clear.

Snow conditions : No great change. The old Weasel tracks are still visible though drifted over and cut in places.

In the morning we took azimuth and declinometer readings and at midday a confirming latitude observation [the mountain nearby the site of this astrofix was later named Depot Peak].

In the afternoon Stinear and I took the dog team and drove over to the mountain where Stinear completed his geological examination and collection whilst I read angles to the southern group of mountains. On our way over we lowered a thermometer down a crevasse for fifty feet which Summers who remained with the Weasel walked over to and picked up an hour later.

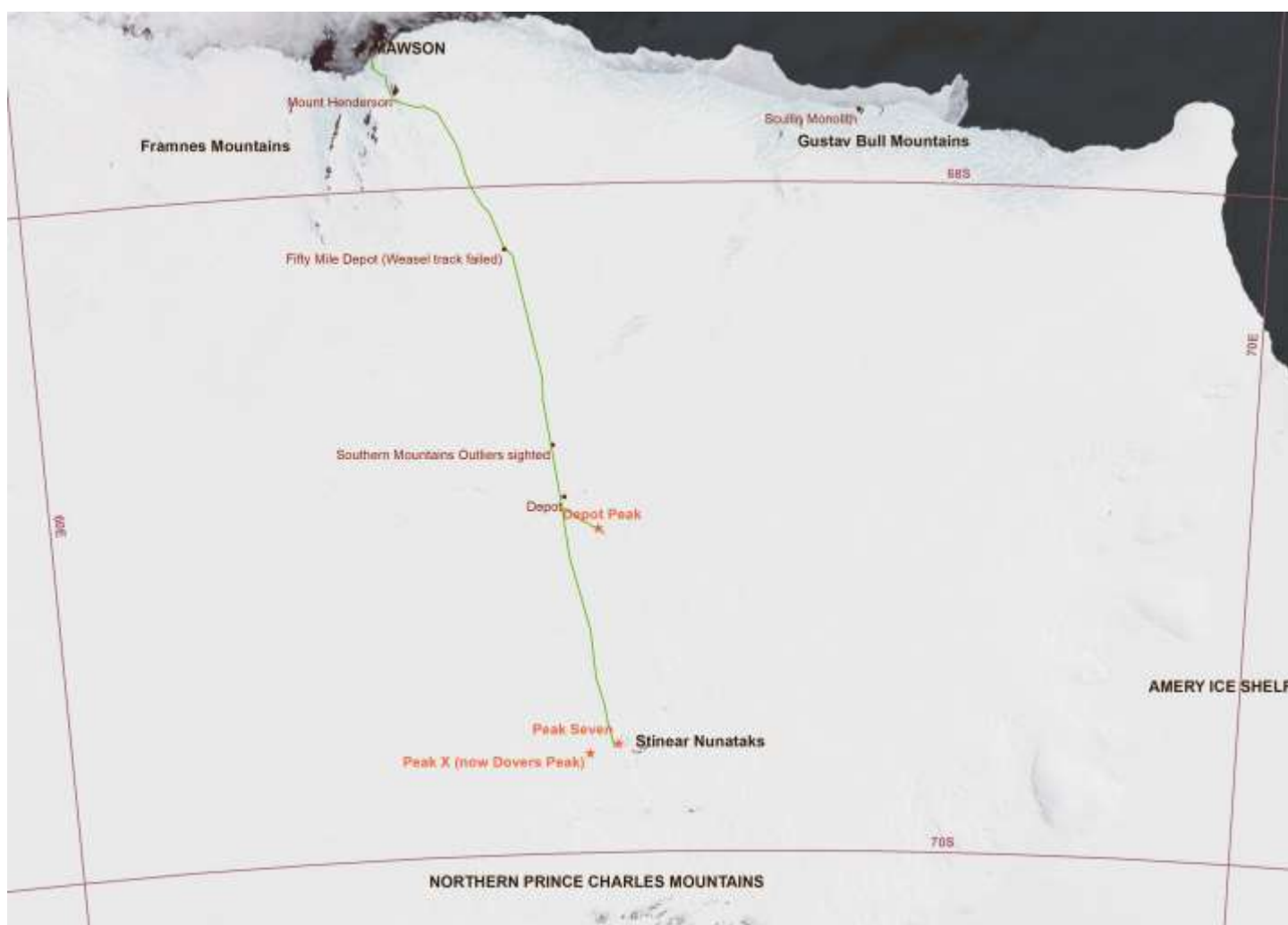
There was a keen wind blowing on the mountain top and it was cold.

We returned to the Weasel at 1900 hours where we found that Summers had arranged everything ready for travel. We then drove back three miles on the old tracks to flag Ell mainly to see whether our work on the Weasel fuel system had borne fruit. We had a vapour lock at two miles. We camped at E17 for the night.

Dogs were fed seal meat.

Two snow petrels were flying about the mountain all afternoon. We saw one small lichen but were unable to collect it because it was lying in a dimple in solid rock.

Radio contact was good on both skeds and we cleared all traffic.



General depiction of Dovers 1954/55 party's track indicating the location of significant events (orange stars indicate astrofix sites).

Saturday 25 December 1954 (Christmas Day)

Weather : Temperature -11.2°C . Cloud 5/8 Stratocumulus and Altocumulus. Wind 5-10knots/ 150° . Fine.

Snow conditions : No great change. Medium to light sastrugi. Following a conference last night we decided to devote

Christmas Day to getting the Weasel a going concern if possible.

The final arrangement was a complete bypass of the fuel filter. We had Christmas dinner from a special pack made up by Gleadell which provided the following menu : Tomato juice; Asparagus soup; Chicken Saute. Mashed potato; Green peas; Pudding with rum sauce; Coffee. One bottle Reisling. Rum. A Christmas present to Summers from his people was opened and it contained some gum leaves which were ceremoniously burnt, filling the Weasel cabin with the nostalgic fragrance of the Australian bush.

After lunch we commenced travelling again running out a course of 220 degrees which was calculated to keep us clear of crevassed ridges. The visibility was very bad and we were only catching occasional glimpses of the sun. We only made 2.5 miles before the carburettor filter clogged and in any case it was too dangerous to push into new country in the present dead flat visibility.

My health is not as good as it was when we left Mawson and Summers advises strongly against going on with the dogs. Unless the Weasel proves reasonably useable tomorrow there seems to me no alternative. It is very hard to make a decision. If it was someone other than myself I suppose I would have no hesitation in turning back to Base, but as it is, following the debacle at the Scullin Monolith I have had a long battle the whole year to keep our field programmes satisfactory and we need the visit to the southern mountains to fulfil it. They can only be, at most, sixty miles away or three days run with the dogs.

One skua and one Wilson petrel seen today. Two Cape pigeons flew over the Weasel tonight.

Radio contact was excellent today.

Sunday 26 December 1954

Weather : Temperature -12.2°C . Overcast with light precipitation. Wind 5knots/150°.

Snow conditions : Light to medium sastrugi.

The weather was not very promising in the morning with nil surface visibility and no sun for the astrocompass.

It was Summers birthday and a present was produced plus one packet of Lucky Strike cigarettes from Schwartz.

We made several attempts to get underway but each time decided against it. We planned to put one man on foot with a magnetic compass to ski ahead of the Weasel and maintain course. It is

a system I have used in Adele Land but it is so slow as to be hardly worth the trouble. Finally towards 1645 hours we moved off with very poor surface visibility and a weak sun occasionally showing through heavy overcast. It was no fun driving and the navigators Summers and Stinear had a trying time staring at the blank whiteness ahead trying to discern signs of crevassing.

We only made seven miles before it became hopeless. The Weasel did five miles without starving and the trouble was quickly rectified. I think we at last have our fuel troubles beaten. Radio contact was excellent in the morning but very poor at the evening sked.

Monday 27 December 1954

Weather : Temperature -17.6°C . Cloud 8/8 Stratocumulus clearing on the southern horizon with a bank of towering Cumulus on the northern horizon. Wind 15knots/160°.

Snow conditions : Light to medium sastrugi.

Another overcast day dawned, with surface visibility nil and no sun to steer by. After yesterday's sad effort we decided to sleep in until the 1130 radio sked. After this we had breakfast and saw a suspicion of breaking sky in the east and south. By 1600 we had a weak sun and surface visibility of a sort and we moved off. We made five miles and were obliged to stop with nil visibility. At 1900 hours the visibility improved again and we proceeded once more. We made a further ten miles before being stopped again by lack of visibility.

At seven miles from camp the southern mountains came into view and we have had them in sight ever since. I have chosen a course slightly to the west of the mountains to give us a navigational fix as we run up on them. As far as I can see there are five main peaks trending away south west and not a continuous range. So far no evidence of low land or further mountains either west or south east. We are still climbing gently and are at 6100 feet altitude tonight.

By cleaning carburettor and fuel pump filters at each five miles run we have had no further fuel troubles.

Radio contact was excellent at both skeds, strength 5 X 5 in the morning and 5 X 3 in the evening. We sent a message to Antarctic Melbourne describing the mountains ahead.

Tuesday 28 December 1954

Weather : Temperature -15.2°C . Clear sky. Wind 15knots/170°. Fine.

Snow conditions : Light sastrugi most of the day until near the southern mountains where it became medium to high.

We started at 0600 hours but by the time the dogs were loose and the Weasel ready for travel it was 0900 hours. We continued travelling on a course of 164 degrees which would take us on the western side of the mountains thus getting a running fix to locate them as we approached.

Going was very easy today and the Weasel gave little trouble - we seem to have the Weasel a more or less going concern now.

At about five miles off the mountains we saw a great snow drift leading almost to the top of the most south westerly peak and turned in on a course of 146 degrees and began to climb straight up the drift. This was the roughest stretch of the days run, driving over high sastrugi which we were cutting at a bad angle.

We were able to drive the Weasel almost to the top of this peak [later named Peak Seven of the Stinear Nunataks] where we made camp.

A most interesting surprise awaited us here. As soon as we topped the crest we saw a great range of mountains leading away to the south east. Up to this time we had not the least suspicion of the existence of this range. It was a magnificent spectacle and a very fine climax to the journey; well worth the petty annoyances of the Weasel. It is difficult to estimate the extent of the range, it begins here Latitude $69^{\circ}40'S$, Longitude $64^{\circ}42'E$ and extends about 20 miles south then trends south east to outside our range of vision.

The first thing done was to set a line of dural stakes on the first two miles of our exit route where we had twisted and turned off course climbing the drift, just in case the Weasel tracks disappeared.

This done we tramped up to the top of the peak together where photographs were duly taken. I read a few angles, a sun azimuth and took a round of photographs with the survey camera.

The local rock is still gneiss but at a lower grade of metamorphism than at Mawson which Stinear describes as massive felspar garnet gneiss.

The country is high to the west, with a distinct fall eastward and almost level in the north south axis.

The dogs were fed pemmican for the first time tonight.

Radio contact was good at 1130 hours but poor tonight.

Wednesday 29 December 1954

Weather : Temperature -14.5°C . Fine and cloudless. Wind 30knots/ 170° .

Snow conditions : The country to the west of us seems crevasse free and presents the best available route south. Summers and Stinear report country to the east is crevassed both north and south.

Stinear and Summers went geologising and botanising around the local peaks together. There were no lichens found and not much of great geological interest by their report.

I carried out observations for an astrofix, and took a duplicate set of survey photographs at the near peak. Later in the day I observed the magnetic declination and filled in the remaining time boring a hole down to five metres depth to take neve temperature.

The dogs were fed pemmican.

Radio contact was good and a message was sent to Antarctic Melbourne re the new ranges.

Thursday 30 December 1954

Weather : Temperature -11.0°C . Fine and cloudless except for a trace of Cirrus to the south west. Wind 25knots/ 170° . Drift in the morning clearing later in the day.

Snow conditions : Medium to high sastrugi to the west and south west but no evidence of serious crevassing.

My main trouble has been to find a base line sufficiently long and sufficiently well orientated for photographic survey of the southern range. Leaving Stinear alone at the Weasel to complete his local collecting Summers and I took the dogs over to a small nunatak to the west of the Weasel camp distant about six miles [then called Peak X of the Stinear Nunataks and now officially Dovers Peak]. It was very doubtful when we left as to whether we would be able to work or not since a fair drift was blowing and visibility appeared to be deteriorating. However by midday the weather began to clear.

On arrival we immediately took a surround of survey photographs and read control angles. We also took observations for latitude, longitude and azimuth. We were obliged to wait here until 1800 hours for the longitude observation. I had hoped that Depot Peak which was visible from the Weasel camp, would also be visible from this nunatak to simplify the calculation of the length of the base, but it was obscured by

the northern crest of ice. The only blot on the afternoon's work was our failure to receive the wireless time signal from Mawson.

This occurred because I was not explicit enough to Bill Storer on the previous day's sked. I instructed him to send time signal repeats as on the western journey but he misunderstood and as result we missed the Sigma rendering the longitude observation valueless.

We got back to the Weasel at 1930 hours. Since the weather was now still very fine we decided to commence the return journey to Mawson. We ran on until midnight making fifteen miles of the return journey. We had no difficulty following our outward bound Weasel tracks. We measured the height of all flags.

A depot was left at the Weasel camp consisting of 36 man days rations, 65 pounds of dog pemmican, 2 gallons of kerosene, 1 packet of Meta tablets, 1 dozen boxes of matches, 4 tins of canned fruit, 2 tins of meat and 1 tin of green peas. The whole is stowed on the first visible rock exposure on the northern face of the mountain marked with a bamboo and red pennant.

A major disaster occurred when the dogs raided the Weasel sledge when we were halted for the radio sked and partly destroyed two complete rations.

The nylon rope used as a tow to the dog sledge snapped when the sledge capsized in sastrugi.

Radio conditions were very good in the morning but bad on the evening sked.

Friday 31 December 1954

Weather : Temperature -9.7°C . Cloud unknown. Wind 40-50knots/ 170° . Light to medium drift with heavy precipitation in large flakes.

Snow conditions : No inspection though the Weasel sledges are drifting in.

We warmed the Weasel motor ready for departure at 0800 hours when we had only light surface drift and a sky of broken Altocumulus and Stratocumulus. However by the time we had the sledges hitched in ready to depart the visibility had closed down and the sky was completely overcast. We moved the Weasel sledges which were already drifted in then parked the Weasel with its nose upwind and settled down for the day in the Weasel cabin.

I did some rough plots of the south range and found that most of the range lies well beyond 70°S . I also amended our track

chart to agree with the observed positions of the near south mountains.

We carried out routine engine maintenance and cleared the fuel system from tank to carburettor.

The dogs were quite happy in today's drift and none became badly iced up. They are getting hungrier now that they are living on dog pemmican and as soon as they are loosed in the morning there is a scramble about the Weasel in search of scraps of rubbish.

Radio contact was excellent in the morning, I heard Lem clearly on phone and as a trial we tried phone as well but he could only just hear us and we were not readable. Heard nothing of Mawson on the evening sked but could hear plenty of other stations.

Saturday 1 January 1955

Weather : Temperature -11.6°C . Wind 25knots/150°. 8/8 broken Stratocumulus and Altocumulus. Moderate surface drift.

Snow conditions : No great change since the outward trip. A few fresh drifts lying across the reoded Weasel tracks.

We broke camp and got underway about 0800 hours following our old Weasel tracks which we could just see in the surface drift. With the Weasel tail into the drift is much worse than heading direct into it. The drift eddied around the front of the machine and settled on the windshield where since we were facing the sun it melted. The whole machine was dripping water and slush all day. I was driving but could see practically nothing and had to rely on shouted directions from either Summers or Stinear who took turns at the navigation trap. We made good progress despite the constant drift and only lost the track just at the end of the day. When this occurred we were only a few miles from a flag so drove on to its estimated position before stopping.

About 1500 hours we heard an ominous clanking sound from one track and on inspection one leaf was found to be broken on the rear spring as well as a bogey loose in the yoke arm.

At camp I jacked up the Weasel and the broken spring. On doing so I found that the bogey arm bolt to the yoke had sheared. I had intended to replace the broken spring with the spare spring carried and repair the damaged bogey but after two hours futile struggling with corroded bolts I found I was making no progress so gave in for the night.

The run for the day was 34 miles.

Radio contact was excellent on the morning sked and fair on

the evening sked. We took a message on phone from Base.

Sunday 2 January 1955

Weather : Temperature -10.5°C . Fine and cloudless except for a trace of Cirrus and Cumulus on the northern horizon. Wind 25knots/ 150° . Light surface drift.

Snow conditions : Virtually unchanged since the outward journey. We confirmed the existence of a crevassed zone between flags E9 and E10 which we suspected on the way out.

Whilst the others were cooking breakfast I continued the battle with the stubborn corroded bolts of the spring and bogey assembly. I tried everything we could think of, including heating with a blowlamp and soaking in kerosene and oil, but I was unable to budge them - they held as though welded in place probably due to the Weasel's immersion in sea water during landing operations earlier in the year. Not having much choice we decided to reassemble the damaged parts and push on hoping that they would last the distance without total failure.

Travelling conditions were very similar to those of yesterday, perhaps not so bad, so we made good steady progress all day, nursing the Weasel over the bumps and following our old Weasel tracks which were only just discernible. By continual prophylactic action with the carburettor and petrol pump filters we are now having no fuel troubles. The broken spring and bogey are still holding out tonight. We made a total run of 37 miles for the day and made camp at flag E9 at 2030 hours.

The dogs are becoming very hungry on pemmican and the man performing his early morning duties is surrounded by a tight circle of greedy eyed canine spectators who sweep in the moment he moves off. There is of course an element of risk in the business in that they may sweep in before he moves off!

The radio contact was excellent in the morning. Bill Storer was able to give us a resume of the local news and gossip by phone. Contact in the evening was poor.

Monday 3 January 1955

Weather : Generally fine. For details see the weather observations.

Snow conditions : Virtually unchanged since our outward journey. The Weasel track is still showing faintly.

Today has been a day of steady travel. We left flag E9 at 0900 hours with excellent weather and visibility and followed our

old Weasel tracks homeward. At flag E6 the petrol pump gave up the ghost when the diaphragm holder we had improvised and soldered came adrift. By the time we had repaired it it was time for the noon latitude. We then bored a five metre hole for neve temperatures which involved a further wait of an hour which we employed having lunch.

Gradually during the afternoon the sky became completely overcast with nil surface visibility and no sun to steer by. However we persevered on slowly and arrived at the Fifty Mile Depot. I found the interchangeable lenses of the Ski-Brille goggles very useful in today's conditions with the gold lenses I was seeing much better than with no goggles.

Sastrugi direction changed from 170 degrees to 150 degrees north of flag E16. At Flag E12 we seemed to pass out of the zone of medium plateau drift and for the rest of the afternoon yesterday and for all of today we were driving in very light plateau drift.

Radio contact was good on both skeds.

Tuesday 4 January 1955

Weather : Generally fine. For details see the weather observations.

Snow conditions : There has been a remarkable deterioration of the snow surface and of crevasse bridges taken place since we were outward bound in the last ten miles to Mount Henderson. Surface ablation has been intense and crevasses have become visible in areas we thought crevasse free.

We spent most of the day checking and packing up the Fifty Mile Depot. We left here all our excess petrol and all but a small reserve of our dog pemmican. The petrol is depoted with one forty four gallon drum standing on top of another, alongside on the eastern side are the cases of dog pemmican. A bamboo marker and pennant are lashed to the top drum. The depot is still only visible from a half mile approaching from the north but can be seen five miles off approaching from the south. We left the Depot at midday and proceeded to flag D13 where at Stinear's request we turned off due west and visited a small nunatak (referred to as Nunatak 1 in reports) distant two and a half miles. Here we made a geological collection, took survey photographs and declinometer readings. Summers' patience was finally rewarded with the discovery of numerous lichens on the rocks. At the top of the nunatak there was a large pool of melt water. We found also here that a further leaf had gone on the broken spring leaving only one sick looking leaf holding the assembly together.

We then returned to flag D13 where we bored a five metre hole and took neve temperatures using the enforced halt to cook a meal. We limped on to flag D5. We had a nasty time wiggling the Weasel among crevasses north of the ice dome. Some of them looked very nasty indeed. This was unfortunate as it entailed more vigorous driving of the teasel and at every bump we expected the spring to fail. Just after D5 in old ablated sastrugi the spring failed and simultaneously the track on that side snapped across completely.

It was then 0400 hours and not having much choice in the matter we camped in the Weasel cabin.

We saw numerous Wilson petrels today.

Radio contact was good in the morning but we did not make contact at all in the evening.

Wednesday 5 January 1955

Weather : Generally overcast with occasional periods of drift. For details see the weather observations.

Snow conditions : No inspection.

As soon as breakfast was over we got to work on the Weasel. First we jacked the machine up and rested it on a fuel drum. One bright side of the complete break in the spring and track was that I was now able to remove the spring assembly complete which could not be done with a bogey on both sides. This done we mounted a new spring assembly and replaced the broken track with the spare carried. All that then was needed was to free the two damaged bogey assemblies from the broken spring and remount them on the new one however this was very difficult. The bolts holding these were so corroded to their housing and try as we might we could not budge them. After working most of the afternoon on these without any success we decided we could not hope to shift them. We then had the choice of shifting a set of bogeys from the central springs aft onto the new spring and limping home on three out of four springs or getting two new bogey assemblies up from Mawson by dog team, a distance of only fourteen miles. Rather than risk further complications we decided on the latter course. Accordingly on the evening sked we asked George Schwartz if he would mind sledging them up halfway to meet our dogs who would take over from there. Mawson replied that Schwartz was ill in bed but that Macey and Harvey would do it with his team. Since we had no way of knowing how much deterioration had taken place between here and Mawson and they were neither of them experienced dog drivers we declined their offer and decided to descend tomorrow with our own team to Mawson and bring up the parts ourselves.

With these intentions we turned in for the night.

Radio contact was good on both skeds.

Dogs fed pemmican.

Thursday 6 January 1955

Weather : Temperature -5°C . Wind 35knots/130°. Overcast. Drift and precipitation.

Snow conditions : There has been very heavy surface ablation between D5 and Mawson. All crevasse bridges deteriorated and new crevasses discovered by loss of snow cover. Deep channels of thaw water running in rivulets on the blue ice between Mount Henderson and Mawson. A new set of crevassing now showing on the crest of the ice slope at the north-west corner at Mount Henderson.

The day dawned with drift, frequent snow squalls and poor visibility. Accordingly we delayed our departure with the dogs for Mawson and to fill in time resumed the attack on our stubborn bolts. This time we adopted more radical measures. First we hand filed flats on the bolt heads onto which a spanner could just be hammered. This done we hacksawed through the bolt housings and eased the threads with a cold chisel as a wedge. Then with a most complicated set of leverage onto the spanners we turned the bolts. A three foot length of pipe to act as a lever on a spanner would have been invaluable to us.

Once these bolts were cleared we soon had the bogeys reassembled on the spring and the Weasel was a going concern again. We managed to manufacture a makeshift bogey axis to replace the one sheared.

Then, since the weather seemed to be improving we commenced the return to Mawson. The crevassing in blue ice between flags D4 and D3 had been worrying us. If a similar deterioration had taken place there as near the ice dome it promised to be very difficult, coupled with the present poor visibility. However there was not a great deal of change there. We almost stopped and camped at one stage when we found ourselves in the middle of crevassing and visibility blotted out by a snow squall, but we kept on chasing each crevasse to its best crossing which in the poor visibility took a long time. However eventually we got through it and arrived at the Henderson Depot.

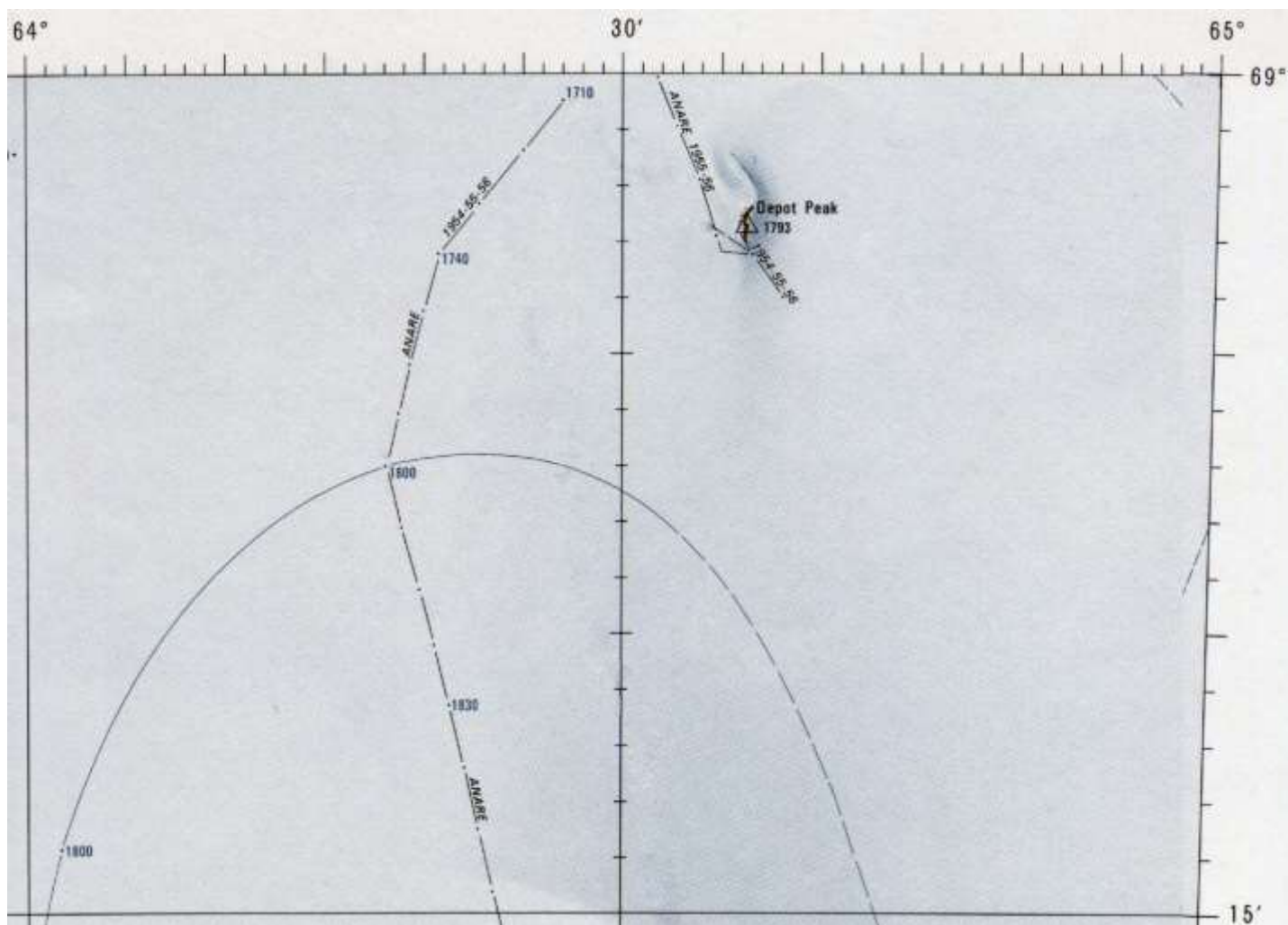
All marker flags were down after D4. We checked the Depot and took a list of the supplies there, then descended to Mawson.

The biggest surprise of the whole trip was the existence of channels of running water on the blue ice between Henderson and Mawson. These were up to six feet wide and three feet deep running very fast and though not dangerous had to be headed to

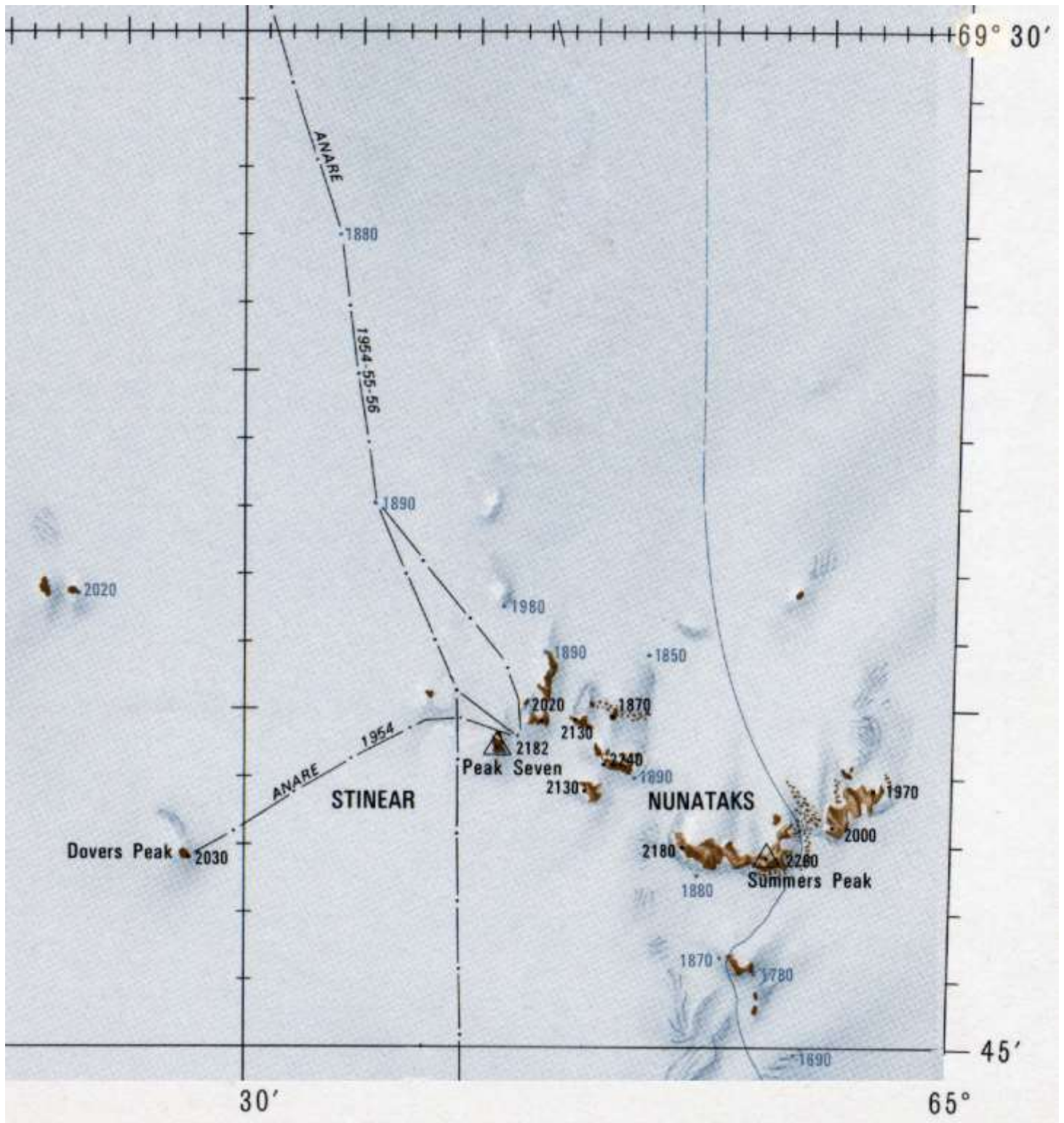
get the Weasel across. The dogs took a dim view of the sharp blue ice and also of the water some had to be tied onto the Weasel sledge when they refused to come on. Many of the rivulets were running down the ice bridges of old crevasses and only separated from the crevasse by a thin plate of ice. I broke open one of these.

We arrived in at Mawson at 0200 hours Friday 7 January 1955. From Henderson Depot we could see the open sea was in at the continent at Brygga.

FINIS



Section of May 1969 topographic map sheet SR41-42/6 Stinear Nunataks, depicting area around Depot Peak with Dovers 1954/55 party's tracks.



Section of May 1969 topographic map sheet SR41-42/6 Stinear Nunataks, depicting area of Stinear Nunataks with Dovers 1954/55 party's tracks.