

Sunday 28th June

A quiet day with the recreation room in full use & movies in evening.

Monday 29th June

Large oil runner caravan moved to camp area to be refitted and later taken to Vanderford turn-off of 52 trail (15 miles) as a depot for dog teams & parties on move in that area.

Older D4 in garage for overhaul & painting. First tractor looks & sounds like new after Hulamb's treatment.

Tuesday 30th June

Fire alarm sounded indicating fire in garage - fake alarm caused thru faulty detector. Impressed by rapid turnout of everyone. Twenty one persons on site in 35 seconds, most armed with extinguishers. Freeman checking other detectors as they appear to be susceptible to vibration. The garage wall was bumped slightly by a vehicle at the time of the alarm. Fox, Rogers & Propoy moved dog lines to a new site as original site drifted up quickly & buried main chain.

Wednesday 1st July

Progress on seismic but foundations slow due mainly to the lack of carpentry knowledge. Half of wall boxing completed.

Thursday 2nd July

Bonnie dug tunnel from vestibule door to save digging out door. Tunnel roofed with timber & lashed with entrance about 6' from mess wall.

Appears to be reasonably successful as wind scours entrance effectively. Head clearance a problem but this can be remedied.

News of Davis close-down received by party with mixed feelings, especially those who have wintered there.

Friday 3rd July

Routine day - Ellis successful with Redfern & Mawson & Sydney. He is not very impressed with the standard of work in the equipment, but appears to have solved all his problems now.

Shulcombe cleared spare parts jammerway of snow & commenced cataloguing of parts. A big job but he is working 16 hours per day to get this overdue task completed. The problems of materials, equip. & food storage & location could be solved by the appointment of a storeman who would more than save his salary in preventing the unnecessary reordering of various items which seem to be here in excess but are ordered each year.

Saturday 4th July

Heaters in rec & lounge rooms stopped due to ice blockage after refueling. Freeman has plan for draining tanks of water prior to filling.

Movie in evening plus beer ration.

Sunday 5th July

Quiet day off for most with some wishing to go on short trips but prevented by weather.

Monday 6th July

Fox, Morgan & O.C. went with dog teams to Chappel Island to read angles to Cape Folger drum marker & G5 (at Wilkes). Rather exciting trip as sledge broke thru' ice on two occasions - no damage or loss other than wet feet.

Tuesday 7 July

Heavy snowfall all day with a light wind. All corridors dripping badly & causing ice to form on floors. Salt being used in some places to reduce hazard.

Wednesday 8th July

Blizzard to 60 knots with extremely heavy drift. About 13" of snow fell yesterday & this was rapidly blown away together with the sea ice. Water shortage at station as today was the deadline for refilling.

Blizzard eased off by 2200 to 15 knots.

Thursday 9th July

Freeman & Williams completed fitting out caravan for moving to S15 as a depot for movement to 52 & Vanderford glaciers.

Morgan & Hall preparing large ice drill for movement with caravan. Several problems encountered in running drill, mainly faulty setting of limit

switches. Also appears to be some unnecessary stiffness in Kelly lead.

Extremely high temp. for July today $+31^{\circ}\text{F}$ for period 1000 to 1300. Very noticeable inside buildings - in fact there were temps in some parts of $+80^{\circ}\text{F}$ until heaters were readjusted.

Friday 10th July

Still fairly warm - $+10^{\circ}\text{F}$ with absolutely no wind for most of day.

Ice drill damaged thru' over-running of Kelly lead screw. Apparently a limit switch had been bridged out for testing purposes & forgotten when Kelly was run down. Will take some time to repair.

Saturday 11th July

Hyster tractor crane broke down. Apparently oil pump failed & investigation proved that engine bearings had been failing for sometime - during changeover they were very noisy. This is a setback to vehicle overhaul plans as an overhaul of the Rodwell was intended next week for the spring traverse.

Profky & Budnick went sealing on sea ice with dogs. Again sledge broke thru' ice in several places. Instruction issued on areas of sea ice which may be visited.

Usual heater problems after refueling, although not as serious as previous occasions.

Sunday 12th July

Quite station today - few working & not bothering about day off. Others on short trips from station. Weather quite mild - clear with no wind & temp - 5°F

Monday 13th July

Ellis & Simmons fitted door & windows to emergency power station & store prior to moving radio parts from met. vestibule into building. Drain from kitchen has been continually blocking recently mainly because of tea leaves tipped in sink. Hall made up special strainer & container to eliminate this habit.

Tuesday 14th July

Freeman, Williams & Hall left at 1200 with large caravan, DL & Snotrac for S15. Morgan withdrawn as ice drill was not ready to go. Reached edge of aerodrome by 1800. Also pulled down all feeder wires to transmitter building as they left. Caravan would pass under with plenty of clearance last week, but apparently there had been a snow build-up in last few days.

Wednesday 14th July

Bonnici & Propoly shot seal about 1 mile from station on sea ice. Very welcome as dogs have been on pommican for several weeks.

Thursday 16th July

Murray, Hulcombe, Budnick, Bowthorpe & I visited new station site to photograph snow patterns & assess period required to survey area. Travelled by large toboggan & Wessel, both of which were almost overturned several times by the sastrugi & steep slopes in the vicinity of Bailey Peninsula. Unable to find one redeeming feature of proposed site; in fact there are so many points against using it that one feels sorry for future expeditions. Potential water supply appears non-existent as melt lakes shown on maps are in comparatively flat areas & would freeze completely in winter. The area is almost completely devoid of snow for melting purposes. A melt lake might exist about $1\frac{1}{2}$ miles from site that would be permanent supply. Unable to find a route for getting any vehicle to beach or to site for that matter. Fuel drums would be almost impossible to get from beach to a suitable storage area.

The area is dangerous because of sheer ice cliffs near site & the general slopes are too steep for all but a very experienced driver.

Many other features appear to be against site which but would be too numerous to list here.

Other parts of coast appear better suited for a new station.

Photos taken & Budnick assessed surveying with a 2 foot vertical interval would take 3 months

Friday 17th July

Routine day. Ellis moving parts to new store adjacent to transmitter building.

Morgan has excavated giant hole beside garage to locate ice drill spares buried there last year. Unfortunately he is finding everything has his parts - medical, mechanical, hardware, but no ice drill parts to date.

Party at 515 delayed by poor visibility for their return to Wilkes.

Saturday 18th July

Ellis completed installation of windows & floor of emergency power house. Also moved bacteriological incubator from vestibule to building for use as a cupboard for spares. Incubator is beyond repair for use as an incubator.

Field party arrived at 1750 after experiencing trouble with DU & Sustac at moraine.

Sunday 19th July

Quiet day throughout station with several doing normal duties rather than have day off. Porphy & Jones out with dogs & shot two seals on sea ice near Stephenson's Cove.

Monday 20th July

Toothpaste has run out. This is another of several consumable items which are in very short supply or do not exist. Found reason for this was a misunderstanding with last year's records, whereby the consumables were sent as the amount

estimated to be remaining at the end of the year rather than the amount required. Hope to find some USN tooth powder in Jamesway.

Tuesday 21st July

Morgan still digging in ice looking for ice-drill spares. Not have much luck other than finding numerous empty boxes.

Freeman working on lighting installation of balloon hut. Intend to move hydrogen generator etc to new building next week.

Wednesday 22nd July

Brophy, Morgan & Fogarty went to Chappell Is. with dog team to continue measuring of angles to Cape Folger drum.

Pollard, Freeman & Ellis putting finishing touches on new scatter transmitter and antenna. Some doubt whether or not there will be sufficient power available to run the transmitter & CTH 700 Redfox simultaneously. Theoretical calculations of E drop etc show plenty of capacity in pyrotenes.

Thursday 23rd July

Morgan & Freeman preparing gear to go to 52 to carry out ice-drill trials. Decided to re-stock 52 with food, mainly items of which there is an excess here at Wilkes.

For & assistants preparing to move met. equipment to new balloon hut — items like hydrogen generator, must be moved & commissioned immediately to maintain continuity of met. programme.

Friday 24th July

Brophy, Freeman & OIC spent day sealing in "Iceberg Alley" (runs from Totten past Chappel Pt. on north side). Several seals in water around icebergs but none ventured forth to meet them down.

Dogs are getting more work this year than ever before. Each dog, other Mr. & Mrs. Melbourne do at least 15 miles per week on sealing runs & Sunday joyrides. Some trouble has been experienced with lead dogs Rebel & Spot who have not performed very well in past weeks. They have now been banished to lower positions on the string & other dogs are being tried in the "glamour" position. Even the pups, "Fitter & Turner" have been given a trial but not with success.

Saturday 25th July

Budnick has survey equipment ready to commence survey of new station site on Monday.

OIC & Budnick checked area on coast between Wilkes & new site for alternative routes. Only one actually leading to site & this must terminate at least 400 yds from the site because of an extremely steep & icy compound slope. Route to within one mile of site quite good.

Sunday 26th July

Quiet day - ham radio in full use & several out with dog teams.

Monday, 27th July

After a week of fine weather, a mild blizzard blew up today, restricting everyone to indoor work.

Dyed down by 2200.

Repairs required on Hyster are more extensive than at first thought. This has set back overhaul of vehicles required for spring traverse, especially if extra vehicles are required for triangle traverse.

Several seals on ice close to station shot for dog food.

Tuesday 28th July

Budnick & Smith commenced survey of new site. Consider it will take 3-4 months allowing for poor weather to complete this project. (Budnick's opinion.)

Baker hydrogen generator moved to new balcony. Building towed over by D4 with little trouble. Heater & building still to be moved.

Wednesday 29th July

Routine day - survey of new site continued.

Hyster nearly completed, except for tracks which require several hundred man hours of work to bring them up to a reasonable standard.

Thursday 30th July

Morgan & Freeman preparing food, equipment etc. for ice drill trip to S2.

Friday 31st July

Balloon hut changeover still in progress. Routine balloon flights being maintained with bottled hydrogen whilst Baker generator is re-installed.

Budwick & OIC on site survey. Distance from Wilkes by shortest possible route is 4.6 miles. This route would not be possible in summer & autumn because 100 yds of rocks would be uncovered. Alternative route (all seasons) would be approx. 5.1 miles.

Ellis completed new amplifier for communication between radio room & transmitter shack.

Saturday August 1st

Hyster lift completed & tested perfectly. Diesel Section has done a great job on this machine, the total time involved being 244 man-hours which compares more than favourably with the standard times of William Adams & Caterpillar Ltd. This supports contention that the RTA of DUS & major overhaul is pointers, if the properly experienced mechanics are selected and a good range of parts is made available.

Ding night held in evening - no station person had a birthday to celebrate so it was decided to celebrate the birthday of the world's homes whose age increases one year on Aug. 1st.

Sunday Aug 2

Quiet day with no trips abroad.

Movies in evening.

Monday Aug. 3rd

Hulcombe & Hall commenced repairs to ice drill. Very laborious & uncomfortable job as all work has to be done from ladders. Found large bronze nut on belly had damaged thread. Will take some time to replace. Machine requires some detachable platform for working on upper sections.

O'Shea & Jones repairing sledge (Otaw) sides for depot trip.

Tuesday Aug 4th

Morgan & Freeman preparing sledges for trip to 52. Have decided to restock 52 with food etc for at least 3 months as Morgan will spend a substantial part of the remainder of the year on projects in this area. Allocated 2 small American sledges permanently to ice drill for carrying flight & fuel. Runners on drill when used for fuel storage increased ground pressure psi too much for easy towing.

Wednesday Aug 5th

Woods & Oic dug out doors of three jamways to look for soap or powder. Found all jamways except No. 2 filled with snow. Apparently canvas has been torn in several places by flying debris during blizzards. In any case quite sure all spare soap was cleaned out during autumn when shortage became evident.

Mushuk pregnant - for the 6th time apparently.

Thursday 6th August

OIC & Hall blew hole in melt water lake for obtaining water as 110v generator had broken down & it was not possible to use Sibre cores as usual. Water extremely dirty after explosion but appeared to settle clear after a while. Attempted to place ice well tube in lake, but hole is not large enough. Tried to open it up with small charges but not successful. ~~Failed~~

Ice drill repairs completed ready for test tomorrow.

Friday 7th August

Drill tested very satisfactorily, although only a 3' hole was attempted.

S2 party almost ready to leave now that drill is OK. ETD in Monday am.

Party McFreeman, Morgan & Bonnici who will remain at S2 for 3 weeks. Simmons & Jones will take D4 to S2 with drill & return immediately as D4 will be required for depot trip with spring traverse fuel.

Saturday 8th August

Nodwell moved into garage for repair. Unable to start engine so vehicle was winched in by D4.

Movie and beer ration in evening.

Met. sec. find new balloon hut more convenient than old building, although launching ramp tends to be slippery.

Sunday 9th August

About 12-15" ice has formed in water tank since insulated cover has been in use over past 7 weeks. Used Herman Nelson to thaw out tank ⁱⁿ about 12 hours. Before cover was erected tank would build up to 15" in two weeks. If a heat source from the towing vehicle was introduced to cover, there probably would be no build up.

Quiet day on station with several not taking day off. Simmons & Williams rode motor cycles out to Chappel Is. doing a real reconnaissance.

Monday 10th August

52 party ready to leave but held by bad weather. Total train ended up being 5 sledges - 2 of flight for for drill - 1 of food & restock 52 - 1 of fuel & scientific equipment & 1 of survival equipment.

Weather eased off in afternoon but blew up again at 2100.

Wednesday 11th August

Weather cleared at 0800 but visibility on plateau appeared to be poor, so held field party. Water & rubbish runs commenced about 0900. Weather deteriorated again at 1130 very suddenly with winds to 60 knots and very heavy drift. Both duty parties caught outside station at melt lake, but completed tasks. Also depot trip preparations were under way; namely the loading of 85 drums fuel onto Otari

sledges. They also completed their tasks in very bitter weather.

Thursday 13th August

Weather still bad with no prospects of improving. Water tank on sledge reported to be leaking yesterday. Could have been caused by excessive expansion when kerosene heater was applied last Sunday to melt the tank clean.

Friday 14th August

Still no improvement in weather. S2 party is "poised" ready to leave but visibility is so poor that the drum line would not be visible even at 50 yds. Depot party making some preparations but have been hampered by weather.

Halcumbe received news that he is the father of son. Occasion celebrated accordingly in evening.

Some damage to aeriels & feeders reported by Ellis. Not possible to repair at this stage.

Saturday 15th August

Again weather was too poor for S2 party to leave.

Small & Oic commenced digging out new sennic hut to continue construction of foundations. Hut was almost completely filled with snow.

Sunday 16th August

Weather cleared slightly so decided to move ice-drill & all 5 sledges to plateau. Jones drove D4 towing an approximate load of 12 tons. Had to drop sledges at rubbish tip as D4 could not handle the full load because of icy conditions. Drill taken only. Dropped at a point just above the moraine & D4 returned to station. Forecast augers well for a departure tomorrow.

Monday 17th Aug

Weather fine at last! Party for 52 left at 0830 comprised Freeman, Morgan & Bonnici who will stay at 52 & Jones & Simmons who will return with the D4.

At 1600 radio shed. party reported to be at the caravan at the 15 mile point with sledges & drill 2 mile beyond this point.

Preparations for depot trip in full swing now that weather has cleared. Their departure depends on the date of return of D4 from 52.

Tuesday 18th August

Heater (Trombone) removed from fibre glass caravan. Found to be completely blocked at base of flue with granular carbon. Intend to redesign whole flue system to make heater safe from CO trouble. 52 party reported to be experiencing trouble with both Suotras. Hulcombe discussed troubles with Jones on radio. Appen to be solved now.

Wednesday 19th Aug

Nothing heard during 1100 & 1600 sheds. with field party. Assume they are now en route for S2. Depot trip preparations well under way & hope to leave by next Monday.

Thursday 20th Aug

S2 party arrived last night at 2200 local. One sledge of drill flights left at 18 mile point to give D4 a chance to travel in 2nd gear. Sledge will be picked up by depoting party next week, as drilling party has sufficient flights to commence drilling. Also Sustrac 6 was left at 15 mile point with faulty steering. Hulombe & OIC left station at 1230 with Weasel & sledge & picked up ST 6 but were turned back by whiteness at moraine.

Friday 21st Aug

Hulombe & OIC went to 15 mile point in Weasel & recovered ST 6.

S2 party reported to have drilled to 6 feet, but have been hampered by bad weather. Jones & Simmons left S2 at 0900 with D4 & ST 5 on return to Wilkes. Depot trip preparations nearly completed.

Saturday 22nd Aug

Jones & Simmons arrived at Wilber at 1230 after staying overnight at S15 caravan.

Ding night in evening for Fred Cross's birthday.

Sunday 23rd Aug

Quiet day on station with several working on routine jobs & depot trip preparation.

Ham radio in full use for greater portion of day.

Weather poor restricting everyone to station.

Monday 24th Aug

Depot party ready to leave by early pm but poor weather precluded any departure. No snow is very deep especially below moraine, foresee some difficulty in moving trains to plateau as each D4 has over 12 tons to haul.

S2 party reported to have drilled to 132 feet, but feed motor is running at 60% overload without any mechanical load.

The bitch husky for "Abell" brought from Melbourne this year was destroyed today after many attempts to replace her womb which had dropped out on Saturday. General air of despondency around station as this dog was a particular favourite with everyone.

Tuesday 25th Aug

Depot party started at 1100. First of many problems encountered during day at ice cliff past rubbish tip. D's could only haul Otacos over this crest. Other sledges left whilst Otacos (9 tons each) were hauled to moraine base. Heavy snowstorm (no wind) all the while. Eventually hauled all components of train to S1 by 1830. As weather appeared to be the prelude to a blizzard, all returned to Wilkes.

Wednesday 26th Aug

Depot party & OIC who will accompany party as far as S2 up at 0500; started SnoTrac but visibility dropped to zero by 0600, so abandoned idea of leaving today.

Commenced painting of toilet & bathroom block which is extremely dirty.

Thursday 27th Aug

Weather still poor - no possibility of depot party getting under way.

S/D/M has nearly completed extensive overhaul of Rodwell engine & track system.

END OF BOOK I.

Roberts

Friday 28th August.

Traverse party Keith Budnich, Ross Hall & John O Shea left on their fuel depoting trip. Ray left with them to go to S2 to see how things were getting along and to bring back Mike Bonnici for the start of the Met summer program. They had a bit of trouble in the soft snow near the edge of the plateau but were otherwise okay.

Saturday 29th August.

Routine quiet day. Film shown in evening.

Sunday 30th August.

Geoff Hulcombe unearthed two more pieces of the oil stove in the Carpenters shop after receipt of a cable from AWAKE indicating that pieces were stored there by the 1963 party. A number of parts are still missing mostly small parts so it looks as though there is a box still undiscovered.

Geoff Hulcombe volunteered as Sunday cook as Mike Jones complained he had been cook on his last shift.

Ray O'Leary & Mike Bonnici arrived back from S2 about 6pm after a good trip from S2 - having about midday.

Monday 31st Aug.

At 1030 Fox reported that Bonnici had not arrived at ravine hut after leaving new balloon hut. Search parties consisting of all met. staff, Rogers, Fogarty, Ellis, Simmons, Bowthorpe, Smith, Hulcombe & OIC started searching in radius from ravine hut at 1100. Wind was in vicinity 70 knots with extremely heavy drift making visibility zero most of time. Very difficult to carry out a systematic search as the searchers, working in twos or threes, constantly became lost, but fortunately managed to make their way back to the main station or the ravine hut which was used as an operations centre.

Search party members were roped together luckily as Porphy fell over an ice cliff at the shore line & was held by Bowthorpe on rope. Other members had narrow escapes, mainly from falling into sea. The sea ice had been blown out. It was feared that Bonnici may have fallen in.

At 1445 Woods, who was maintaining communication between the station & the ravine hut, reported that Bonnici had called on the spherics hut intercom. Apparently he had fallen over near the balloon hut then lost his orientation when he moved again. He spent 3 hours in a box 100 ft from the spherics hut & periodically ventured out to try & obtain his position. Could see outline of spherics hut ~~but~~ on one trip from box, but was afraid to leave the end of a rope which he found in the box.

Monday 31st Aug (Continued)

£ ran out as a life line. Finally made a desperate bid to get to hut which succeeded.

He was in a moderately exhausted condition but otherwise OK. Search party issued with rum as some were in condition equal to Bonnici.

Tuesday 1st Sept

Painting of leads etc completed. Looks a lot cleaner & neater although some of cleaning equipment (buckets, mops etc) still clutter the place.

Depot party still held up at point 40 miles from Wilkes by poor vis. 52 party confined to indoor work.

Bonnici OK after yesterday's effort, although he is apprehensive about going outside in anything but the finest weather.

Wednesday 2nd Sept

Blizzard again today after a reasonably fine day yesterday.

Station time advanced 1 hour (to WA time) so that met. section may have breakfast before doing the morning flight. They have two flights per day from now till changeover.

Water pressure dropped to zero about 1700. Found pump gland leaking air. Tightened & OK.

Recreation room heater blew back & filled room with smoke, much to the alarm of the security watchman Simmons. Has occurred before & could be caused by the lowering of room pressure by a wall

suction fan, especially when the doors are tightly closed for some period as in this instance.

Thursday 3rd Sept

Depot party finally made 52 after leaving our Otard 10 miles out due to soft snow. They, ^{as well} as Freeman & Morgan to remove feed motor from drill for return to Wilkes. Motor is suspect & requires complete dismantling.

Bonnici received radiophone call from a Mr Stewart who questioned him about Monday's experience. Turned out Stewart was from Melbourne "Herald" & Bonnici was not aware of the rule regarding statements to the press. Repeated his memory on this point along with all others. ~~the~~ The radiophone is a great facility but in these instances it is impossible to control any statements leaving the station, if reasonable consideration is to be given to the secrecy of a personal conversation.

Friday 4th Sept

Both field parties still immobilised by weather. Dad & I made radiophone call to Bonnici's relatives as they had not been aware of his experience last Monday until it was published in yesterday's "Sun". Apparently they were very upset by the whole matter. Assured them he was in perfect health and none the worse for his experience. Bonnici had forgotten to mention it in his weekly cable.

Saturday 5th Sept

Depot party reached 52 after having Otis sledge loaded with 40 drums 8 miles from 52. Freeman & Morgan will return to Wilkes in Wessel being towed on sledge by depot party.

Sunday 6th Sept

Freeman reported that ice drill feed motor had been successfully removed ~~from~~ & was loaded ready for return to Wilkes.

Weather still poor at 52, preventing any commencement of baseline survey. Fuel unloaded to establish Depot 2 for spring geophysical traverse.

Quiet day on station with about 60% spending day on short walks.

Monday 7th Sept

Depot party reported that both D4's were seized! Investigation showed that one had run a big end bearing which had been replaced but shaft was too worn & new big end looked like packing up any time. Still unable to locate problem in other D4 at 0800Z shed.

Hall (D/M with depot party) reported that all bolts on big ends were loose. This tractor had been performing satisfactorily & lower section of engine had not warranted any inspection.

Tuesday 8th Sept

Depot party reported that second D4 engine had been freed but cause of seizing still not known. To complete Depot 1 & 3 and the baseline survey would entail another 60 miles of travel with a D4 which could break down again. Engine had been stiff to turn over on previous starts, so reluctantly instructed depot party to return to Wilkes.

Wednesday 9th Sept

D4 with faulty big end loaded on Otacs, loss blade & C frame, food sledge to be left at S2. Fuel will be picked up by spring traverse party. Depot party plus Freeman & Morgan hope to leave S2 at first opportunity.

Wessel bang driven by Freeman reported to be noisy in transmission, so it is possible that another vehicle will have to be sledged back to Wilkes.

Thursday 10th Sept

Depot party unable to leave S2 because of poor visibility.

ATK heater was being tested in small caravan & caught fire after it flooded with fuel. Extinguished with dry powder. No damage & cause of flooding not yet located.

Further tractor trouble today - 955 tractor lost oil pressure after running a few minutes. Engine has to be removed to get at pump.

Friday 11th Sept

No Traxcator was out of commission & both D4's in field, found it necessary to dig garage out by hand so Rodwell could be taken out & tested.

All available persons (about 12) shovelled out ramp in 3 hours & Rodwell taken out for test run. Steering still the same - very disappointing as it was hoped to travel 6-700 miles in this vehicle during spring. Will still have to use it, but it means almost continually braking one track to maintain a straight course.

Saturday 12th Sept

Depot party "advance party" of Whitworth & Morgan arrived Wilkes at 1530 reporting that remainder of party should arrive at the moraine by 2100.

Belcombe & OIC left Wilkes in Rodwell at 1800 to meet depot party & take some of their load down moraine. Met them 6 miles from Wilkes & took caravan in tow. D4 hauled Otis loaded with UP5 D4 & all arrived Wilkes at 2150.

Sunday 13th Sept

Belcombe reported big-ends of Rodwell are worn, probably due to continual dilution of the lubricating oil by ATIC from the cooling system last year. This is a further setback to the spring programme as both D4's also require extensive repairs.

Monday 14th Sept

Weather has been perfect last two days with clear skies, brilliant sunshine & a temp. around -12°F. The effect on the general cheerfulness around the station is very noticeable now that the weather has improved & the daylight extended.

Further improvements made to ATK heater in fibreglass caravan so that it is now working 100% efficient.

Tuesday 15th Sept

S/D/M completed dismantling the flywheel & clutch assembly of the D4 that temporarily seized at S2. No sign of any obstruction which could have caused this, so it is assumed trouble was ice although considerable heat was unsuccessfully used in an endeavour to free the engine.

Skylights in science block cleared possibly for the first time in many years. Difference in natural lighting remarkable.

Wednesday 16th Sept

D4 reassembled & tested O.K. This trouble at S2 will remain a mystery.

Other D4 with worn bearings & crankshaft brought into workshop ready for repair.

OIC discussed tracking problem with USN mechanic at McMurdo Sound via ham radio. He has made a suggestion which could solve the problem.

Wednesday 16th Sept.

After lengthy & often fruitless argument with White-
worth & Morgan, convinced them it was essential
to commence one of the spring programme phases as
soon as possible.

It is probable that Morgan's ice drilling programme
will not be continued this year as on present indications
the feed motor is not repairable with local facilities.
Therefore he will be have at least 5 sweeps during
which he would not be engaged on any significant
portion of his programme. Also preparation for
the geophysical is held up, mainly because of the
need to give one D4 a major engine overhaul &
also make a final attempt to solve the inherent
troubles of the Rodwell before it is handed over
to next year's party. Finally the seismic gear
cannot be tested until it is decided whether
the Rodwell can be used or not.

In the light of above, considered it logical
to start the triangle traverse first. Vehicle needs
will only be one D4, & two Sno tracs, plus large
caravan.

Thursday 17th Sept

Party consisting of Budnick (leader) O'Shea
Hall & Morgan selected for triangle traverse.
They will depart as soon as possible, probably
next Tuesday.

Since Freeman's return from S2 there has been a
rash of jet heater breakdowns. Fortunately that

they did not occur while he was away as in each instance the troubles have been very complicated. The head jet heater had to be replaced entirely ~~being~~ using the only spare unit.

Seal population on sea ice has increased by 30% in last 2 weeks, probably due to increase in fine weather. Mainly females, but several males sighted & shot.

Friday 18th Sept

Preparations for triangle traverse commenced. Should not be too lengthy as caravan is more or less ready from depot trip, as also is engineers sledge. Main hold up will be scientific gear which in the usual fashion is being prepared in the most haphazard & disorganized manner.

Saturday 19th Sept

Routine day — dug night in evening for the birthdays of Budinuk, Pollard & Murray. Freeman worked all day until midnight on ~~heads~~ new jet heater.

Sunday 20th Sept

Bowdoin released first balloon of spring series today. Apparently a very successful flight.

Fine day & several out on walking trips.

Monday 21st Sept

Intend to complete the survey of baseline thru S2 & depoting not finished by depot party earlier this month, as part of triangle traverse. This will allow the geophysical traverse more time for actual programme work.

Party ready to leave, except for Morgan whose estimate of Monday night now looks very doubtful as a completion time for his equipment.

Tuesday 22nd Sept

Budnick moved to train to plateau during afternoon to await Morgan's departure. Finally returned to station as Morgan decided he would not be ready until Thursday! He'd thought of something else he should take which required some preparations. Rest of party rather disgusted as they have worked hard to make an early departure.

Wednesday 23rd Sept

Weather poor so traverse departure still delayed. Afraid Morgan is being held responsible for the weather now, but at least he can claim he is not holding up departure.

Drift around new balloon hut has increased alarmingly since last July when an assessment of drift around this building was made. Probably due to the decrease in wind velocity during blizzards in recent weeks when snowfalls have been very heavy prior to the wind.

Thursday 24th Sept

Weather still poor with visibility close to zero on the plateau. Morgan completed his preparations by evening, so everything now depends on the weather.

Fresh potatoes lasting very well this year, apparently much longer than previous years. Goss most meticulous about temperature control of reefer in which potatoes are stored. This could account for them lasting so well.

Bowthorpe's cosay balloon programme progressing well with three launches this week. One released today during lull in wind.

Friday 25th Sept

Traverse party up at 0500 but weather again doubtful during am. After lunch visibility cleared so Budnick prepared to depart for vehicles at noon. However Morgan decided that he could not leave as the gravity meter drift rate from Wilkes 852 would be increased unnecessarily ^{by only} a short distance on the first day. This point was conceded to Morgan on the grounds that he alone can make a decision affecting the scientific programme, but it is felt that any hold-ups en route to 52 because of weather etc. will have the same effect.

Saturday 26th Sept

Triangle Traverse party departed at last! Reached approx. 20 miles from Wilkes for day.

Sunday 27th Sept

Bowthorpe released another balloon today - again successful.

Traverse 40 miles from Wilkes.

Quiet day on station with several not taking day off.

Station duties altered - 3 main duties -
Water run, scrubbing & Pan Ray & cleaning
of bar, room, heads & sleeping quarters.
Lounge to be cleaned by study.

Monday 28th Sept

Traverse party making good progress. Have established depot at point 10 miles west of 52 & will move to 52 tomorrow.

Whitworth installed seismic gear in vessel used for this purpose during autumn. Until Modwell proves satisfactory for an extended field trip, it is being assumed that the vessel will be used. There is still a fair amount of testing to be done on the seismic equipment before it can be taken into the field.

Tuesday 29th Sept

Traverse party delayed at 52 by mild blizzard. Whitworth & OIC removed track (left) from Modwell and lengthened it by 10" on recommendation of USNR mechanics at McMurdo. Theory is that it is necessary to have a slack track on the side to which the vehicle turns. Do not understand reasoning, but it's worth a try.

Wednesday 30th Sept

Triangle traverse party still delayed by weather. Sweep on first penguin arrival arranged by Doc. Murray. Some rather unusual estimates of ETA.

Bowthorpe & Smith released another balloon — again successful.

Thursday 1st October

S/D/M inspected Rodwell engine bearings suspecting they were worn because of oil dilution with ATIC last year. ATIC had been leaking from oil cooler since repaired. Bearings proved OK so at least there is one major job on this vehicle which can be struck off.

Traverse party still delayed at a point 2 miles SE of SZ.

Last of jet heater heat exchanger spares used. Apparently these heat exchangers RTA this year are not repairable so it appears that the jet heaters will have to be replaced with something of Aust. manufacture.

Friday 2nd October

Insulation around engine & in floor of Rodwell caught fire during oxy cutting beneath vehicle. S/D/M Whitworth & OIC in vehicle at time. Blaze quickly quelled. Lesson learnt when CTC extinguisher was used. ~~Vehicle~~ Garage had to be evacuated because of fumes generated. Very rapid turn-out by 80% personnel when alarm was sounded.