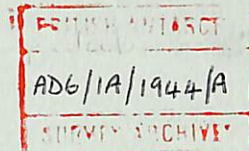


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Operation Tabarin.

~~BRITISH ANTARCTIC~~ ~~SURVEY~~

First report on the work of Operation
Tabarin. Part 1. The work at Base A. 1943-44

by J.W.S. Marr

Distribution:

First Report on the Work of Operation Tabarin.

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Part I The Work at Base A, 1943-44.

BRITISH ANTARCTIC

ADG/1A/1944/A

SURVEY ARCHIVES

Introduction

S.S. 'Fitzroy' carrying personnel, stores and equipment for Base A, accompanied by H.M.S. 'William Scoresby' arrived at Port Lockroy in the late afternoon of 11th February, 1944. A site for the base was chosen on Goudier Islet, the largest of the rocky islets guarding the inner anchorage of Port Lockroy. Landing operations began immediately, 'Fitzroy' using two large flat-bottomed scows which, lashed together and decked over with planking, were capable of loading some 15 tons at a time. By night-fall a mass of packing cases covered the rocky summit of the islet. The last of the stores were landed on the 16th and at half-past three on the morning of the 17th we came ashore to live in our partly completed house. 'Fitzroy' and 'Scoresby' sailed an hour later.

The Argentine vessel 'Primo de Mayo' had visited this harbour in March 1943 and had left ample evidence of her visit. On the rocks of the penguin rookery a few hundred yards from the base the name 'Primo de Mayo' was splashed in large red letters along with other names which evidently belonged to some of her crew. On the highest point of Goudier Islet a metal Argentine flag had been erected but it had been poorly guyed and had fallen down. A brass cylinder containing an Argentine document laying claim to these territories was subsequently found near the site of this flag. A similar flag and cylinder had already been found at Deception Island. Both flags and cylinders have been sent to the Governor of the Falkland Islands for safe keeping.

A busy three months followed the departure of 'Fitzroy' and 'Scoresby'. The house was completed and greatly extended. A Nissen hut was erected and all the stores were sorted out and moved into it. The meteorological equipment was set up and the working routine of the base as a whole got going. The outside building was completed by mid-April and the bulk of the interior fittings of the house including those of the laboratory by the end of May. During this period we received two visits from H.M.S. 'William Scoresby', the first on the 19th March when she remained until the 24th, the second on 17th April. On the 22nd March 'Scoresby' carried a party from Base A to Cape Renard on the Danco Coast where a difficult landing was made to erect a metal Union flag.

The winter months were spent largely in preparing and training for sledging. There was a great deal to do as there had been no time in London to give any attention to this side of our work. There were skis, tents and sledges to rig and assemble, man-harness and canvas covers for sleeping bags to sew, ration boxes and soft winter ski bindings to make, sledging rations to prepare and much else, to mention but a few of the specialised items of equipment essential to polar travel. We had no sledge wheel but Ashton contrived an ingenious substitute from a bicycle wheel and an old Cherub log we got from the 'Scoresby'.

After some experiment a workable soft winter ski binding was evolved. It consists essentially of a rope-soled canvas overshoe or slipper, stiffened at the heel, which can either be permanently screwed on to the ski or slipped into the ordinary Bernina binding as with a leather ski boot. In either case the heel spring of the Bernina binding is used so that the soft binding gives as much rigidity and control on steep traverses as an ordinary stiff ski boot. For manhauling our skis were fitted with Weddell skins which have proved ideal for all types of surface. They are possibly a little on the heavy side but one soon becomes accustomed to the extra weight.

During this period most of the party learnt to ski and by the end of winter they were able to move about comfortably and quickly over all types of surface and country.

While this work was in progress Taylor besides overhauling and preparing his own equipment carried out a detailed survey of the harbour and its neighbourhood and later, towards the end of July, a sledge party consisting of Taylor, Lamb, Davies and Marr extended this work northwards to the Dorian Bay region and beyond.

Although we had hoped to get farther afield, possibly as far as the Danco Coast, the open state of the sea this winter confined our sledging in the end to Wiencke Island alone. Indeed even during the coldest months the sea ice never held firmly enough for travelling except in the immediate vicinity of the base.

On 9th September Lamb and Davies on reconnaissance crossed to the east side of Wiencke Island by way of a 1000-foot ice-filled pass which has since been called Thunder Glacier from the frequency of the avalanches which sweep it and after one avalanche in particular which we have very good reason to remember¹. On this journey a route was looked out for the survey party which was to follow. Survey operations on Wiencke Island were begun on the 17th September when the first loads were relayed up a difficult passage on to the glacier overlooking the harbour. An account of these operations is given in the extract from my diary which is attached and by Taylor in his report.

The survey party returned to the base on 17th October and the next three weeks were spent by Taylor, Lamb, Back, Farrington and myself in biological collecting and in the preparation of this report.

The Base Hut.

(See plan accompanying Taylor's report)

This building, for it can hardly be described as a hut, has been named Bransfield House. It is strong and commodious and is possibly a more elaborate building than has hitherto been erected in Antarctica— at any rate by a British expedition. Of the whole structure only the section marked workroom in the plan, together with the kitchen, is the original Boulton and Paul hut we brought out with us from England. The remainder, comprising mess room, cabins, store room, scullery and the rest, was put together from a motley collection of materials— corrugated

1. See Narrative of Survey Operations on Wiencke Island (Number 7 in the list of papers and records) attached to this report.

iron, timber and lining paper from Deception, heavy beams dating from the whaling days dug up out of the ice on Wiencke Island, the woodwork and beaver board of the second Nissen hut which was not erected, packing cases and junk of every description, the whole eked out with a quantity of timber, sisalkraft and aluminium foil supplied as good measure by Boulton and Paul along with the original hut.

The section marked store room, with the bath-room, lavatory and wireless engine room off, is built throughout of corrugated iron lined with bits of packing cases and double roofed, over a stout framework of heavy timber from Wiencke Island. The bath came from the derelict hospital at Deception.

The mess room deckhead is lined with beaver board which was also used for the cabin partitions. This is an excellent material, light and easy to work, which can be put to a variety of uses. It stows well and future expeditions would be well advised to carry large quantities of it, as well as of the wooden slides which hold it together. It has not been used in the Antarctic before but has been widely used in the Arctic during this war.

The whole structure is anchored by $1\frac{1}{2}$ inch circumference steel wires passed over the roof and hove down with bottle screws to heavy boulders which were prised off the country rock with wedges and crowbars and dragged into position by tackles, luff upon luff.

We are indebted for this fine residence to the energy, genius and craftsmanship of Lewis Ashton, the carpenter, who in a hundred other ways has proved himself to be a most valuable member of the expedition.

The Boulton and Paul hut has proved thoroughly satisfactory in every respect and I should like to express my gratitude to that firm for supplying at short notice such an excellent building.

Doubtless we could have done with a less elaborate building than we eventually built, but bearing in mind the political background from which the expedition started and the possibility of the permanent occupation of this base which that might entail I considered we had good reason for erecting as imposing a structure as we could.

Health and Feeding.

The health of the party has been good throughout in spite of the fact that we have lived through the winter almost entirely on our tinned provisions. No one has felt the slightest ill effects from this which must be ascribed to our daily doses of Vitamin C (Ascorbic acid) tablets. Seals were scarce. Only four, all Weddells and practically all we saw, were shot for food. The steaks and livers are excellent. We have also tried the heart—stuffed. It is very palatable and undistinguishable from the stuffed heart commonly encountered in restaurants at home. Shags (*Phalacrocorax*) were occasionally eaten. They were usually served en casserole and very palatable they were too. There appears to be no fish in the harbour which is a pity. Traps lowered through holes cut in the ice were set in various parts of the bay but without success.

Of the original consignment of fresh vegetables landed from 'Fitzroy' the Swedes, onions and carrots kept best. The onions lasted into August. The potatoes

never had a fair chance. During the first month after our landing high day temperatures accompanied by rain and sleet often alternated with heavy frosts at night and as a result of the alternate freezing and thawing to which they were subjected they quickly deteriorated and went bad. Freezing of potatoes does not matter provided they can be kept frozen.

It is possible that chickens and pigs could be kept at these bases. They do well enough at South Georgia.

We have lived well, indeed luxuriously, on the excellent cooking and baking of A. T. Berry who has found an able and willing assistant in Blyth. Blyth has done well. Temperamentally and physically he is well suited to this sort of life. He took my place in the survey sledge party after I had to return to the base to deal with urgent signals from the Falklands in early October and is shortly to go off again with Lamb on a botanical expedition into the interior of Wiencke Island.

Survey Work

Owing to the unsatisfactory condition of the sea ice for travelling this winter survey operations have been restricted to Wiencke Island and the immediate vicinity of Port Lockroy. With so small an area to cover Taylor rightly decided to survey it on a scale and with a wealth of detail which has not I believe hitherto been attempted in these latitudes. It is realised of course that with so much of the north Graham Land coast imperfectly charted or still unexplored the time has not yet come for such detailed work and that it can only be justified under circumstances such as we experienced this winter when no alternative course is open.

Wireless Communication

Wireless communication with the Naval Officer-in-Charge, Falklands was established by Farrington on the day after our arrival at Port Lockroy. It has been maintained daily ever since without a single hitch except for one morning when the alarm clock failed and we all slept in and were an hour late with the morning weather report. Farrington has done a fine job. By keeping us daily in touch with the world and never once failing to send out our routine messages he has done the expedition, and all it stands for, a greater service than any other member of it. He was in charge of the base during my absence on Wiencke Island and in addition to the many other valuable services he has rendered he took charge of lamps and kept us lighted and cheerful throughout the long winter nights.

Stores and Equipment

All stores and equipment are under cover either in the Nissen hut or stowed in the ample shelving of the living quarters annexe and porchway. The fine condition they are in today is the result of the long hours of arduous labour spent on them by Davies whose charge they have been. The whole life and work of an expedition such as this hangs upon the protection and maintenance of its vital stores and it is not generally appreciated what a vast amount of hard, unspectacular and often thankless work that this entails, particularly in the early days of the establishment of a base.

Scientific Work

In the purely scientific field the most important data so far obtained have been collected by Lamb, the botanist, and Back, the surgeon, who has charge of the meteorological work. Back is intensely interested in weather, and the faithful records he has kept, apart from their scientific value, will strengthen our political position, if strengthened it need be, should our sovereign rights over these territories again be questioned by a foreign power. With the exception of Rudmose Brown, who wintered on Laurie Island in 1903, Lamb, I believe, is the only other British botanist to visit Antarctica since the days of Joseph Hooker, over a hundred years ago, and I am convinced that, restricted as his field has been, his meticulous and painstaking work here has already gone a long way towards clearing up the somewhat confused taxonomy of the Antarctic lichens. Should we be fortunate enough to establish ourselves at Hope Bay next year, where a much wider field will be open to him, he can look forward with confidence to bringing back further important results. In addition to his botanical work Lamb has acted as our official photographer. The majority of the photographs in the album which accompanies this report are his work and he has done all the developing and printing.

There is no professional geologist in the Base A party but it is hoped that W.R. Flett from Deception may be able to visit us soon in order to carry out a geological survey of our area. In the meantime rock specimens have been collected by us from Goudier Islet and from other points and islets in its vicinity. Other collections have been made from higher altitudes on Wiencke Island, up to 1400 feet.

In zoology little has been done so far. In the beginning my time was wholly taken up with the building of the base, the sorting, unpacking and protection of the vital stores, and later on with the construction and preparation of the sledging equipment required for the survey work we had in view. It was not until the return of the sledging party from Wiencke Island on 18th October that I was able to give my undivided attention to zoology. The winter ice covering the harbour had by that time partially broken up and dispersed and I was able to make a somewhat sketchy ecological survey of the fauna and flora of the ice-worn and outwardly barren boulder beach below the base on Goudier Islet. The collection although small is very rich in species. The ecological notes are concerned mainly with the problem of how such a community contrives to survive and maintain itself in spite of the severe gringing action by ice to which its habitat is annually subjected.

In the course of this work an interesting bottom-living diatom was found. It is a species of *Biddulphia* forming long chains comprising an enormous number of individual cells. It grows in dense tufts about the size of a fist in crevices between boulders submerged in shallow water inshore. In the Antarctic plankton the genus *Biddulphia* is represented by one or two species which occur only neritically, that is to say always in the vicinity of land. It would be interesting to learn if there is any connection between these neritic species and the truly bottom-living form found in the sublittoral of Port Lockroy.

Large Scyphomedusae, belonging to a species I have not hitherto seen in the Antarctic, have occasionally been seen swimming in the harbour. Two have been collected, one of them nearly three feet across.

Summary

The failure of the main party to establish itself at Hope Bay and the restricted geographical field in which it eventually had to operate is reflected in the strictly limited scientific and geographical results that have been achieved. We may however be permitted to regard at least with some measure of satisfaction two aspects of the operation, which while not in themselves very great achievements, may eventually prove to be of paramount importance when questions of sovereignty over these territories come finally to be thrashed out. First, taking the purely political standpoint, we are firmly established in Antarctica at two widely separated points both of which have been surreptitiously visited and claimed by Argentina. At both points Post Offices together with meteorological and wireless stations have been set up and all are going concerns. Second, after a break of five years forced upon us by war, the active interest displayed by Great Britain in this region continuously from 1925 until the outbreak of the war has once again been revived and there already appears to be a prospect of larger operations to come.

Finally, whatever has been done has been accomplished after the shortest period for organisation that has probably ever been given to an operation of this kind, the whole of the preparations in London, under conditions of the utmost secrecy, being rushed through in a little over two months. Actually as it was not until the 3rd October 1943 that I was informed that the Admiralty was prepared to undertake the work of obtaining our supplies, by far the greater part of the preparatory work, including the tracking down, release from war work and selection of suitable personnel, was got through in under a month. As a result, and in the absence of our own vessel, not a single item of equipment was seen or checked by us until our stores were finally landed on the distant beaches of Deception and Port Lockroy. When one considers the variety of vessels employed in shipping our cargo from England and the number of handlings and transhippings it received, it is astonishing that the establishment of these bases went off as smoothly as it did. The cargo carried by 'Bransfield' alone, before it reached its destination, had been handled or transhipped no fewer than ten times.

James W.P. Mack

Lieutenant Commander R.N.V.R.

Bransfield House,

Port Lockroy.

6th November, 1944.