

# FALKLAND ISLANDS DEPENDENCIES SURVEY

## SCIENTIFIC REPORTS

No. 1

## ORGANISATION AND METHODS

*By*

V. E. FUCHS, M.A., Ph.D.

*Falkland Islands Dependencies Scientific Bureau*



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THE Falkland Islands Dependencies Survey originated as a Naval expedition under the title "OPERATION TABARIN" in the year 1943. With the end of the war, control was transferred to the Colonial Office and the code name replaced by the title FALKLAND ISLANDS DEPENDENCIES SURVEY. In October 1948 control was again transferred, this time to the Governor of the Falkland Islands\* who has since then personally directed the activities of the Survey.

The general history of the activities of TABARIN and F.I.D.S. is contained in a series of articles published in the *Polar Record* (Wordie, 1946; Bingham, 1947; Fuchs, 1951).

The topographical and scientific work of the Survey is carried out within that sector of the Antarctic bounded by longitudes 20°W. and 80°W. The south to north extent is from the pole to latitude 50°S. between longitudes 20°W. and 50°W., but only as far as latitude 58°S. between longitudes 50°W. and 80°W. All land within this area forms a part of the Falkland Islands Dependencies as designated by Letters Patent issued on 21 July 1908 (*Falkland Islands Gazette*, 1 September 1908; *British and Foreign State Papers*, 1907-8, Vol. 101, London, 1912, pp. 76-7) and amended in further Letters Patent dated 28 March 1917 (*Falkland Islands Gazette*, 2 July 1917; *British and Foreign State Papers*, 1917-18, Vol. III, London, 1921, pp. 16-17).

Reference to the map will show that the Dependencies fall conveniently under seven headings:

- (a) The Graham Land peninsula together with the islands of the Palmer Archipelago, Alexander I Land and Charcot Island.
- (b) The South Shetland Islands.
- (c) The South Orkney Islands.
- (d) The South Sandwich Islands.
- (e) South Georgia.
- (f) Coats Land (Leopold Coast and Caird Coast).
- (g) A continental sector (between the Pole and latitude 80°S.).

The first five of these groups are the visible portions of the Scotia Arc which is the name used to describe the sinuous submarine ridge linking South America with the Antarctic Continent (Wordie in foreword to Tyrrell 1945).

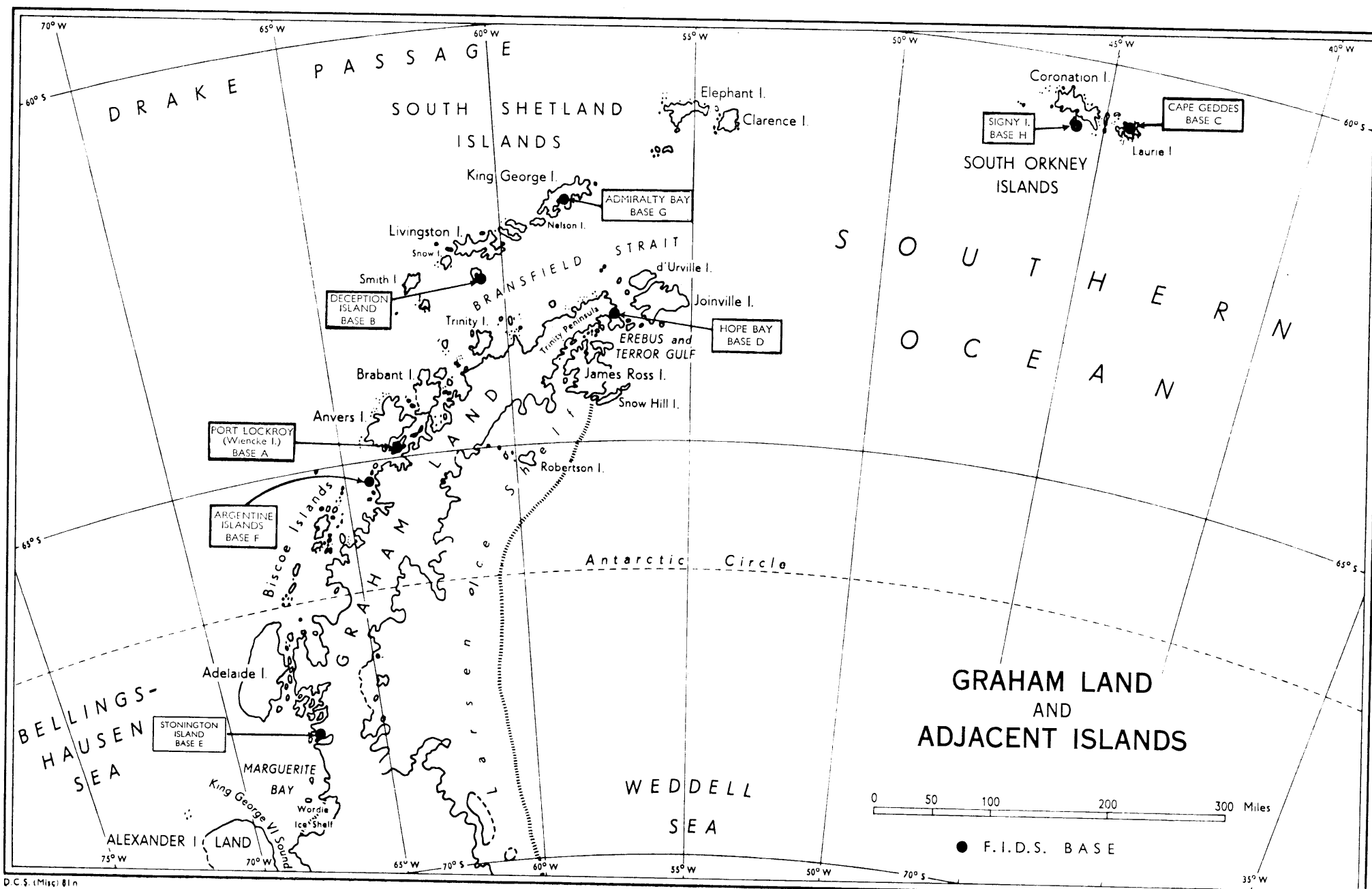
Though it is true that the igneous rocks and perhaps some of the sedimentary rocks of South America and the Dependencies can be shown to have affinities, it is the tectonic or, more properly, the orogenic nature of the ridge which provides the main evidence of a continuous link.

Thus all the Dependencies except Coats Land and the Continental Sector may be regarded as part of an "island arc" like those of the Antilles or the Netherlands East Indies.

## LOCATION AND DESCRIPTION OF THE BASES

Each base is named after the locality in which it is situated, but in addition, for convenience in listing specimens, photographs and other material, they are individually identified by a letter of the alphabet. The list given in the table indicates the name, position and index letter of each base together with the dates of occupation.

\* Sir Geoffrey Miles Clifford, K.C.B., C.M.G., E.D.



TABLE

<i>Letter</i>	<i>Name</i>	<i>Locality</i>	<i>Occupied</i>	<i>Remarks</i>
A	Port Lockroy, Wiencke Island	Lat. 64°50'S. Long. 63°31'W.	16 Feb. '44– 8 Apr. '47 25 Feb. '48–14 Feb. '49 24 Jan. '50–11 Feb. '51 18 Feb. '52–onwards	
B	Deception Island, South Shetland Islands	Lat. 62°59'S. Long. 60°34'W.	6 Feb. '44–onwards	Destroyed by fire 8 September 1946 and re-equipped in January 1947.
C	Cape Geddes, Laurie Island, South Orkney Islands	Lat. 60°42'S. Long. 44°34'W.	29 Jan. '46–17 Mar. '47	
D	Hope Bay, Trinity Peninsula, Graham Land	Lat. 63°24'S. Long. 56°59'W.	13 Feb. '45– 4 Feb. '49 5 Feb. '52–onwards	Destroyed by fire 8 November 1948. Rebuilt in new position February 1952
E	Stonington Island, Marguerite Bay, Graham Land	Lat. 68°11'S. Long. 67°00'W.	23 Feb. '46–12 Feb. '50	
F	Argentine Islands	Lat. 65°15'S. Long. 64°16'W.	Jan. '47–onwards	Previously occupied by the British Graham Land Exp. 1935–6. The B.G.L.E. hut was missing in 1947, probably having been washed away by a tidal wave.
G	Admiralty Bay, King George Island	Lat. 62°03'S. Long. 58°24'W.	25 Jan. '47–23 Mar. '47 Dec. '47–onwards	Hut built 300 yds. to south occupied January 1950.
H	Signy Island, South Orkney Islands	Lat. 60°45'S. Long. 45°38'W.	17 Mar. '47–onwards	
M	Grytviken, South Georgia	Lat. 54°16'S. Long. 36°30'W.	1 Jan. '50–onwards	

- NOTES 1. In February 1945 a large hut was built at Sandefjord Bay, Coronation Island (Lat. 60°43'S. Long. 45°36'W.) but this has never been occupied.
2. In February 1936 the British Graham Land Expedition built a hut at the Debenham Islands (Lat. 68°08'S., Long. 67°06'W.), since 1946 the hut has been maintained by the F.I.D.S. as a major depot site.

### BASE A—PORT LOCKROY

The base was established on 16 February 1944 on a small island in Port Lockroy. Port Lockroy itself is a small nearly circular bay in Wiencke Island about three-quarters of a mile wide. The base hut stands on a Goudier Islet within the bay. Owing to the swift current in Neumayer Channel, Peltier Channel and the southern extension of Gerlache Strait, the sea fails to freeze even in the winter and the base is therefore permanently isolated both from Anvers Island and the mainland.

From February 1944 until the first closing of the base on 8 April 1947 continuous meteorological observations were maintained. Other work included a local survey, the collection of marine biological material and lichens, and in addition some geological work.

From 1947 to 1952 the base was opened and closed on alternate years (see Table). During the periods of occupation meteorology remained the principal work, but in 1948 an intermittent test series of ionospheric observations was made.

The last reoccupation of Port Lockroy took place on 17 February 1952 and it seems likely that it will now remain continuously manned, and that meteorological and ionospheric work will continue indefinitely without further interruption.

### BASE B—DECEPTION ISLAND

This base was opened on 6 February 1944 in Whaler's Bay at an old and derelict whale factory. The party was first established in one of the empty huts on comparatively even ground about 15 ft. above sea level. This site being within the rim of an extinct volcanic crater, now breached by the sea, does not necessarily experience the prevailing weather conditions of the Bransfield Strait. The shore close to the base is mildly

warmed by volcanic springs and steam rises from the beach at low tide. There is very deep water close to the shore and large ships may be anchored within a few yards of the beach.

During the third winter, on 8 September 1946, the base hut was destroyed by fire and the occupants took refuge for four months in a building of the old whaling station known as the "magistrates house".

When the base was re-equipped in January 1947 a large wooden hut was occupied. This had been one of the whalers' dormitories.

The meteorological work at Deception Island has continued uninterrupted to the present time, except for the four-month interval after the fire.

Some geological and glaciological studies have been undertaken and Port Foster has been charted and sounded in detail by a unit of the Admiralty Hydrographic Department which was attached to the Falkland Islands Dependencies Survey during 1949.

### BASE C—CAPE GEDDES

The hut at Cape Geddes was completed on 3 February 1946, but was already occupied on 29 January. The Cape forms the northern tip of Ferguslie Peninsula which itself comprises the eastern side of Browns Bay on the north coast of Laurie Island in the South Orkneys. The hut site is on an area of low, uneven ground some 250 yds. long and in few places more than 30 yds. wide. To the south-east the land rises steeply to over 400 ft. while to the south-west is a steep buttress topped by a small plateau some 150 ft. high. The waters to the north of Cape Geddes are broken by numerous rocks and ledges. The base remained occupied until 17 March 1947 on which day the party was removed to a newly built hut on Signy Island (Base H) some thirty miles to the west of Cape Geddes.

During the period of occupation a meteorological record was maintained. By means of a short journey it proved possible to carry out a certain amount of topographical survey. In addition, geological and glaciological observations were made.

### BASE D—HOPE BAY

The Hope Bay base was first established on 13 February 1945. The site was about half a mile east of J. Gunnar Andersson's stone refuge hut at Seal Point (Swedish Antarctic Expedition, 1901-3).

The north-western side of Hope Bay is bordered by ice-cliffs, but the south-eastern side is low and gently undulating, being covered for the greater part with moraine derived from Mount Flora and The Pyramid to the south. Depot Glacier, which is short and steep enters the head of Hope Bay between the sheer cliffs of Blade Ridge and Mount Flora. North of Mount Flora a number of isolated nunataks protrude through the moraine and ice cover of the area. Several fresh water glacial lakes, the largest of which is Lake Boekella occupy the hollows on the north flank of Mount Flora.

It was intended that this should be a sledging base from which parties could map the east coast of Graham Land. This work was carried on until the end of 1948 when the base hut was destroyed by fire on 8 November with the loss of two lives. After living under canvas the remaining men were taken off by the *John Biscoe* on 4 February 1949. The base was rebuilt and re-occupied in February 1952 at a point about 350 yds. south of the old site and 150 ft. above sea level.

Since it was first established, many journeys have been made from the base and the topography and geology of Trinity Peninsula and the islands to the south and east of it, have become well known. The longest journey was made late in 1947 when a party travelled south along the east coast to latitude 68°S. There they crossed the peninsula to Base E on Stonington Island in Marguerite Bay.

The major journeys accomplished from Hope Bay have been:

- 1945. (a) Via Crown Prince Gustav Channel to Cape Longing-Snow Hill Island-Seymour Island-Cockburn Island-Hope Bay (8 August to 11 September). 300 miles
- (b) Round James Ross Island (8 November to 29 December). 500 miles
- 1946. (a) Survey of NW. Trinity Peninsula via Crown Prince Gustav Channel-Russell Glacier-Cape Roquemaurel and return over same route (27 July to 24 October). 472 miles

- (b) Via Crown Prince Gustav Channel to Russell Glacier south to Mt. Bradley and Mt. Roberts and return to Hope Bay (6 December to 5 January 1947). 291 miles
- 1947. (a) Survey of NW. coast of Crown Prince Gustav Channel south to Russell Glacier (27 April to 25 May). 163 miles
- (b) Hope Bay to Marguerite Bay along the east coast of Graham Land, via Seal Nunataks to Three Slice Nunatak and across the peninsula to Stonington Island (27 October to 5 January 1948). 700 miles
- 1948. (a) Survey journey to southern James Ross Island (18 April to 9 June). 354 miles
- (b) Along the east coast of Trinity Peninsula, across the peninsula via Russell Glacier to the vicinity of Charcot Bay (23 June to 21 July). 180 miles
- (c) Along the east coast of Trinity Peninsula, via Russell Glacier, Cape Roquemaurel and return (4 to 24 November). 172 miles

In addition to meteorology, topographical survey and geology, the work at Hope Bay has included marine biology, bacteriology, ornithology and the collection of lichens.

#### BASE E—STONINGTON ISLAND (Plate II, Fig. 2)

The first party to be established on the island went ashore on 23 February 1946 from the expedition ship *M.V. Trepassey*. The hut was first occupied on 12 March. It was on this same island that the East Base of the United States Antarctic Service Expedition had been located in 1940; later during 1947 these American huts were re-occupied by the Ronne Antarctic Research Expedition.

The island is a rocky ridge about 800 yds. long and has a maximum width of 400 yds., the highest point is 79 ft. above sea level. The British base hut was built at about 25 ft. on the western slopes of the central ridge. At its northern end the island is joined to the adjacent glacier by a steep ice slope and it is this that provides a sledge route to the plateau and the east side of the Graham Land peninsula.

The base was continuously occupied from 23 February 1946 to 12 February 1950. During that time large numbers of sledge journeys were made over the surrounding area. The most important of these were:

- 1946. Northward along the Graham Land plateau to latitude 66°29'S (12 November 1946 to 9 January 1947). 300 miles
- 1947. Joint British-American journey to latitude 74°40'S. on the east coast of the peninsula (9 October 1947 to 21 January 1948). 1200 miles
- 1948. (a) To Alexander I Land (27 July to 26 August). 220 miles
- (b) Around the northern fjords and islands of Marguerite Bay including the east coast of Adelaide Island (16 September to 10 November). 600 miles
- (c) To latitude 71°42'S. on east coast of Alexander I Land (Plate III, Fig. 2) (22 October to 19 January). 940 miles
- 1949. (a) To the east and west coasts of King George VI Sound as far as latitude 70°45'S (8 September to 1 December). 600 miles
- (b) To Eklund Island latitude 73°16'S., longitude 72°15'W (1 October to 28 December). 1080 miles

Many other journeys of the order of 100 to 200 miles were made during these years and the area is now comparatively well known.

Throughout the period of occupation, meteorological observations were maintained at the base. In 1947 and 1949 subsidiary meteorological stations were established for short periods at points distant from the base and during some sledge journeys regular meteorological records were kept.

The major activities were topographical survey and geology, but certain biological studies and collections were also made. The latter include a collection of fish and dredge hauls of inshore marine fauna and flora down to sixty fathoms. Lichens and mosses were collected on most journeys. A general record of ornithological observations was kept, and a particular study of the breeding habits of the Emperor penguin was undertaken during the winter of 1949. Other work has included tidal records, sea ice observations, glaciology, and the development of sledging techniques.

It is normal for the whole of Marguerite Bay to be frozen over in winter, the outer edge of the fast ice extending from the southern end of Adelaide Island to the northern end of Alexander I Land. In some years this fast ice does not break up and prevents ships entering the bay. This occurred during the summer of 1949 and it was not possible to relieve the base that season. In 1950 the ice cleared in early February and the Stonington Island base was evacuated on 12 February.

#### BASE F—ARGENTINE ISLANDS (Plate II, Fig. 1)

The first F.I.D.S. party arrived in January 1947. The intention had been to re-occupy the old base of the British Graham Land Expedition which had been built on the low south-eastern extremity of Winter Island in 1935, but the hut was found to have disappeared—probably swept away by a tidal wave. A new hut had therefore to be built and this was done on the same site.

The Argentine Islands form a small archipelago. Many of the islands have ice caps, the highest point of the whole group being 177 ft. on Galindez Island. It is usual for sea ice to form during the winter and numerous short journeys have been made to the mainland coast (Plate I, fig. 1) and off-lying islands up to a distance of twenty-five miles from the base. Longer journeys by the F.I.D.S. have been prohibited by the unreliable ice conditions further afield.

Since its inception the base has maintained regular meteorological observations. The other main task has been the maintenance and breeding of a stock of dogs for distribution to other bases and the accumulation of a store of seal meat for distribution to bases lacking sufficient fresh dog food.

#### BASE G—ADMIRALTY BAY

A temporary hut was built and occupied from late January 1947 until 21 March 1947, when the base was closed for the winter. In December the same year, the base was re-occupied and on 14 February 1948 the building of a prefabricated base hut was begun adjacent to the temporary hut and about 20 ft. above sea level.

In 1949 still another hut was built about 300 yds. further south on higher ground some 50 ft. above the water. This had been made necessary by the complete burial of the first site under a deep and apparently permanent snow drift which had formed as a result of the wind obstruction provided by the hut itself. This new hut was occupied at the beginning of 1950.

The aspect of both sites is similar: to the east is Martel Inlet, and immediately to the west the steep rocky slopes of the Keller Range. Northward lie the ice cliffs of a glacier which extends upwards to the ice cap of King George Island. Southward, the water, or in winter the sea-ice, of Admiralty Bay extends some eight miles to Bransfield Strait.

Since the opening of the base meteorological work has continued without a break, and during the 1949–50 season topographical survey and geological work was undertaken during two journeys which encompassed the whole island.

#### BASE H—SIGNY ISLAND

In March 1947 Base "C" at Cape Geddes, Laurie Island was closed and the party transferred on board the M.V. *Trepassey* to Borge Bay, Signy Island, where a new hut was erected near the derelict whaling station at Berntsen Point.

Signy Island is roughly triangular in shape, about four miles long and three across. A small ice-cap covers most of the southern half of the island. The base is 70 ft. above sea level on the east coast, a position which is surrounded on three sides by sea but on the south side by crags rising to about 250 feet.

Since the opening of the base, meteorological observations have been continuous and for a time a Stevenson screen was also maintained on one of the glaciers. The coast of Coronation Island to the north has been visited frequently and the following sledge journeys have been made:

1948. To Iceberg Bay and north-west towards the central ridge of Coronation Island (5 September to 10 September).
1949. Eastwards to the Robertson Islands, and north to The Turret (21 July to 11 August).
1950. (a) Journey carried out in two parts:  
(i) Sandefjord Bay and return.  
(ii) From Marshall Bay to the vicinity of Deacon Hill (20 August to 26 September).
1950. (b) Eastwards to the Robertson Islands.

The 1948 and 1949 journeys were by man-hauling, the 1950 journeys by dog sledge.

The major activities have been biology, topographical survey and geology. The biological work has included detailed work on seals, especially the elephant seal, and on several penguin and petrel species. From 1948–51 a large number of penguins and other birds were ringed. A representative collection of the littoral fauna has been made, and in addition some botanical and glaciological work has been done. Routine sea-ice observations have been maintained.

### BASE M—SOUTH GEORGIA

A F.I.D.S. meteorological party was landed on 1 January 1950 and was accommodated in one wing of the house built by the Discovery Investigations in 1925. This is situated on King Edward Point, a low spit in East Cumberland Bay which is overshadowed by steep scree slopes rising to Mount Duse (1600 ft.). On the opposite shore of King Edward Cove lies Grytviken, the whaling station of the Compañía Argentina de Pesca.

With the establishment of the British meteorological station the weather observations maintained under the terms of their lease by the Pesca Company were discontinued. Since that time the observations have continued uninterruptedly and daily weather forecasts are prepared and transmitted during the whaling season.

In 1951 a number of journeys were undertaken in S/F *Albatros*, one of the sealing vessels owned by the Pesca Company:

31 March–6 April.

5 September–12 September.

10 November–15 November.

In the course of these voyages the entire coastline of the island was examined, and biological observations and collections were made. These observations were mainly confined to a study of elephant seals on the flat moraine plain north of Moränen Fjord. In September and October 1951 a camp was established in the Dartmouth Point seal reserve. Observations and ringing experiments on penguins and other birds were made at Maiviken in the same year.

### SOUTH GEORGIA SURVEY 1951–52

A private expedition, “The South Georgia Survey 1951–52”, carried out a programme of topographical survey. Geological work was also to be done, but was interrupted by an accident to the geologist. This expedition was assisted by the Falkland Islands Dependencies Survey and the scientific results will be published in the F.I.D.S. Scientific Reports. The survey work will be included in the series of 1/500,000 maps of the Falkland Islands Dependencies published by the Directorate of Colonial Surveys.

### SHIPS

It was not until late 1947 that the Survey acquired its own ship, the M.V. *John Biscoe* (Plate I, fig. 2). Before that date a number of ships were chartered privately, or lent by the Admiralty.

With the inception of OPERATION TABARIN in 1943 a small wooden sealer, the *Veslekari*, of 250 tons



was chartered from the Norwegian Government in Britain and re-named H.M.S. *Bransfield*, but before leaving England she developed a serious leak and another ship had to be employed. This was H.M.S. *William Scoresby* which had served in the Antarctic with *Discovery II* and was at this time employed as a minesweeper. Unfortunately she had very little cargo capacity.

Thus, during the 1943–44 summer season all work was done by the *William Scoresby* (320 tons) and the S.S. *Fitzroy* (600 tons) the latter being chartered from the Falkland Islands Company.

In the 1944–45 summer these two ships were joined by the S.S. *Eagle*, an old sealer from Newfoundland. The *Eagle* was able both to work in the ice and to carry cargo, but unfortunately on the night of 17 March 1945 she hit an iceberg during a blizzard and smashed her clipper bow down to the waterline. The skill of her captain brought her back to Port Stanley, but it was the end of her service with the Survey. Her sea-going career begun in 1904 lasted until 1948, and in April 1950 she was set on fire and scuttled off the coast of Newfoundland.

For the 1945–46 and 1946–47 seasons the M.V. *Trepassey* (300 tons) from St. Johns, Newfoundland, replaced the *Eagle* and together with the *William Scoresby* and the *Fitzroy* carried out the relief work during these two seasons.

Since late 1947 all the Survey's bases have been served by the research ship *John Biscoe* (870 tons). Originally built as a net layer in 1944, she served during the Second World War as H.M.S. *Pretext*. Her hull is of wood and she is powered with diesel-electric engines. After the first Antarctic season she was sheathed with greenheart and has proved her capability in heavy ice. The modern aids of radar and self-recording echo-sounding apparatus now make navigation safer and quicker. The most important disabilities are her vertical bluff bow and her inability to manoeuvre easily along the winding leads of open water.

## THE ORGANISATION OF THE FALKLAND ISLANDS DEPENDENCIES SURVEY

The Survey is directly under the control of the Governor of the Falkland Islands who is responsible to the Secretary of State for the Colonies. The programme of scientific work to be carried out annually by the Survey is prepared by the Governor with the help and advice of a Committee appointed in 1948 to advise the Secretary of State on the scientific aspects of work in the Dependencies.

In London there is an administrative office in the building of the Crown Agents for the Colonies. The staff is permanent, but the most active time is when recruitment of personnel and the ordering of stores is taking place during the period July to October each year.

In addition to these administrative offices there is also the Falkland Islands Dependencies Scientific Bureau at Queen Anne's Chambers, Broadway, London, S.W.1. The Bureau is directly responsible to the Colonial Office for the printing and publication of the scientific work, for the disposal of specimens, and for the publication of results other than meteorology and hydrography. Normally, the results will appear in the present series known as "The Falkland Islands Dependencies Survey Scientific Reports". From time to time brief letters or notes will continue to be printed in various appropriate scientific journals. General descriptive papers on geographical matters may also be published in other places.

All field reports and photographs are deposited in the Scientific Bureau.

## THE FALKLAND ISLANDS DEPENDENCIES SURVEY SCIENTIFIC REPORTS

The series of reports of which this paper is the first, is planned to include publications on a wide variety of subjects. The reports will be numbered consecutively and will not be issued in volumes.

There will inevitably be some material which may be better described in conjunction with other collections. For example, many of the marine groups are poorly represented in the F.I.D.S. collections since the Survey is in the main a land organisation. In these cases details will probably be published in the "Discovery Reports" or in appropriate journals.

Meteorology and Hydrography will not be included in the F.I.D.S. Scientific Reports. All meteorological material will be published by the Falkland Islands and Dependencies Meteorological Service at Port Stanley, and all hydrographical information is published by the Admiralty Hydrographic Department in Admiralty Charts, The Antarctic Pilot and Supplements.

As Appendix I to this report there is a bibliography which lists all existing publications having a bearing upon F.I.D.S. activities up to November 1952. It is hoped to add to this list from time to time so that within the Falkland Islands Dependencies Survey Scientific Reports it will be possible to find reference to all publications which relate to F.I.D.S. activities in the scientific field.

### NUMBERING, LABELLING AND DISPOSAL OF SPECIMENS

\*All specimens are given a number which contains a Base letter, a station number, and a specimen serial number for the particular station. Thus a rock specimen collected by a geologist from the Base at Hope Bay might bear the number D.123.4. This would be the fourth specimen taken from Station 123 by a man from Base D.

Each base maintains a Station List, a Geological Register and a Biological Register. The Station List gives the precise position of the station together with a description of its nature and extent. Since a single locality may be visited a number of times by the same individual or by various individuals, a new station number is given on each occasion. This avoids any difficulty in the subsequent identification of a precise site, or a variety of interpretations by different workers as to what constitutes a "station". It follows, therefore, that a number of different stations may relate to one position. Whenever possible a general map will be given in each paper indicating the position and relationship of the stations mentioned.

Biological and geological specimens are entered in the appropriate register together with brief details. These include the date, a rough identification and possibly some collectors' notes.

After the examination and description of specimens has been completed they will normally be handed over to the British Museum (Natural History) for incorporation in the national collections.

### REGISTRATION OF PHOTOGRAPHS

Photographs receive the appropriate letter for the base together with a film number, e.g., D.564. If there are a number of negatives on the same film an additional number is added, thus, D.564.2.

Though there may be duplication of numbers as between specimens and photographs it has not been found an inconvenience.

### TOPOGRAPHICAL SURVEY

One of the major tasks of the Survey is the topographical mapping of the Dependencies and to this end surveyors are employed at various Bases. The compilation of the surveys is carried out by the Directorate of Colonial Surveys. There are three categories of maps:

(i) 1/500,000 *Series*.

This series covers the entire area of the Dependencies and is published in colour. The first edition† appeared in 1948–50 and consisted of the following sheets bearing one of the Directorate of Colonial Survey numbers, D.C.S.9, or D.C.S.701, as shown:

D.C.S.9—Sheets A, B, C, F, J, K.

D.C.S.701—Sheets D, E, G, H, L.

In addition, there are three sheets entitled "South Sandwich Islands", "South Georgia", and "South Orkney Islands", all of which are numbered D.C.S.701. The areas covered by these maps are shown in Appendix 2.

A new series of 1/500,000 maps all bearing the number D.C.S.702 is now in course of production. For this series the sheet lines have been altered and the alphabetical lettering has been abandoned, each sheet being identified by the latitude and longitude of the top right hand corner. This new sheet line layout is shown in Appendix 3.

The majority of sheets of the D.C.S.9 and D.C.S.701 series carry a reliability diagram which attempts to assess the relative value of the surveys. In the new D.C.S.702 series the reliability diagram is replaced by

\*Some of the specimens collected before 1946 may bear a number only.

†All sheets from "A" to "L" were marked "Provisional Edition". The sheets entitled "South Sandwich Islands", "South Georgia" and "South Orkney Islands" were marked "First Edition".

a compilation diagram which shows the actual origin of the material used though not necessarily the original source. In this case the judgment as to reliability is left to the user.

Survey reports and reports on sledge journeys are in the custody of the Falkland Islands Dependencies Scientific Bureau and can be used to assist in the evaluation of the relative merits or the accuracy of particular areas.

(ii) 1/200,000 and 1/100,000 Series. (For Sheet indices see Appendices 3 and 4).

These maps are not published and are available only for the use of the Survey's scientific workers at home or in the field. The sheets of the 1/200,000 series are designated by the latitude and longitude of the top right hand corner in the same way as for the 1/500,000 series, it is therefore necessary to differentiate by quoting the scale, thus: 1/200,000 series sheet 60 60, or, 1/500,000 series sheet 60 60.

The 1/100,000 series has been drawn only for particular localities. Each sheet forms a quarter of a 1/200,000 sheet and is designated by the use of the letters NE., SE., SW., or NW., after the number of the 1/200,000 sheet of which it forms a part, thus: 1/100,000 series sheet 60 60 NE.

(iii) *Miscellaneous Series*

This is an unpublished series of large scale maps and plans which may be required for detailed geological or other studies. Many have been taken from the field work of personnel who were not trained surveyors and they are not normally used in the compilation of the regular map series. They are arbitrarily numbered in consecutive order as they come to hand, thus: FIDS Misc. 1, FIDS Misc. 2, etc.

## CONCLUSION

To provide some background to the Falkland Islands Dependencies Survey Scientific Reports a very brief and general description has been given of the work of the Falkland Islands Dependencies Survey, and of the methods adopted in recording the material for publication, from 1944 to 1952.

It should be emphasised that the field work is still in progress at the present time and may be expected to continue indefinitely.

Up to the present no geophysical investigations have been undertaken, but it is possible that a programme including Solar Radiation, Radio Sonde, Ozone determination, and Geomagnetism will be inaugurated in the near future. Seismology (including microseismic observations) and Gravimetric work may be attempted at a later date.

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## APPENDIX I

### PUBLICATIONS RELATING TO THE FALKLAND ISLANDS DEPENDENCIES SURVEY UP TO NOVEMBER, 1952

(Maps and charts are not included)

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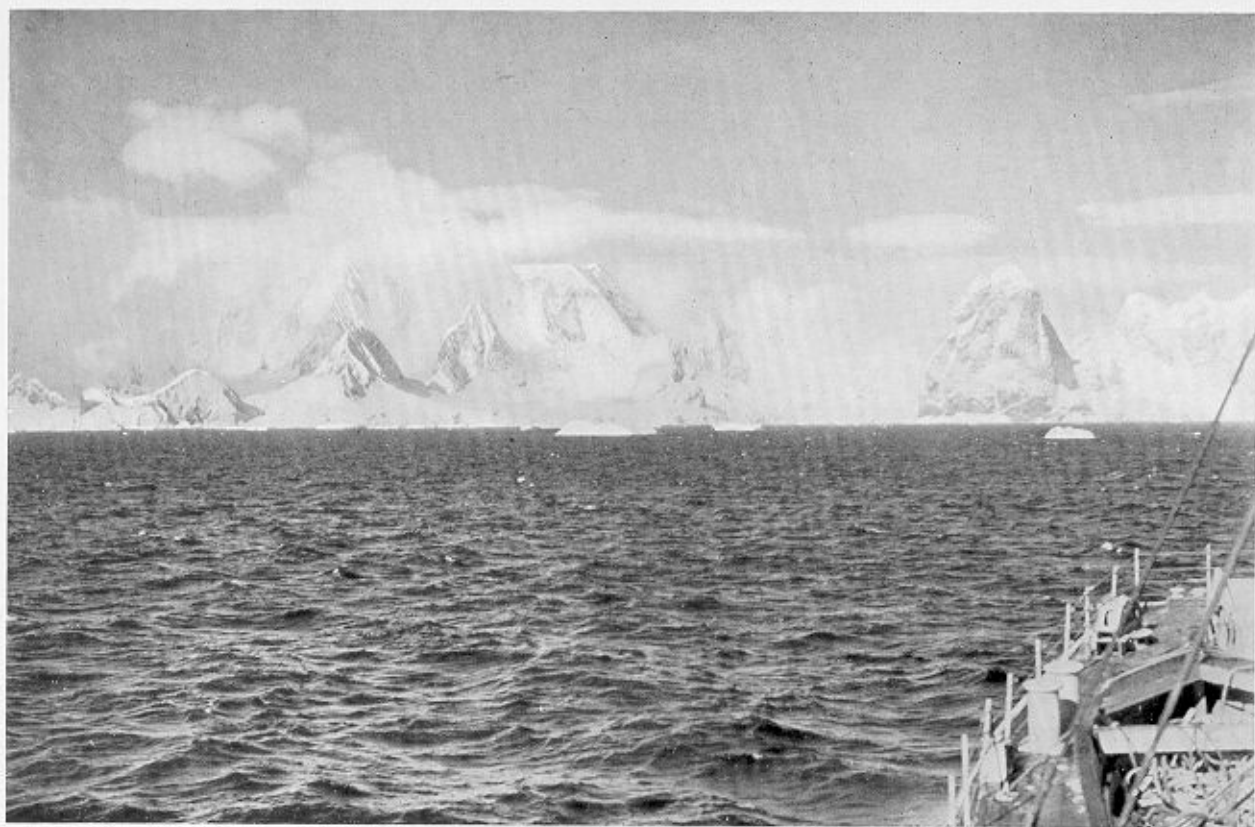


Fig. 1. West Coast of Graham Land in vicinity of latitude  $65^{\circ}15'S$ .



Fig. 2. *John Biscoe* lying off the base at the Argentine Islands





Fig. 1. Base huts at the Argentine Islands

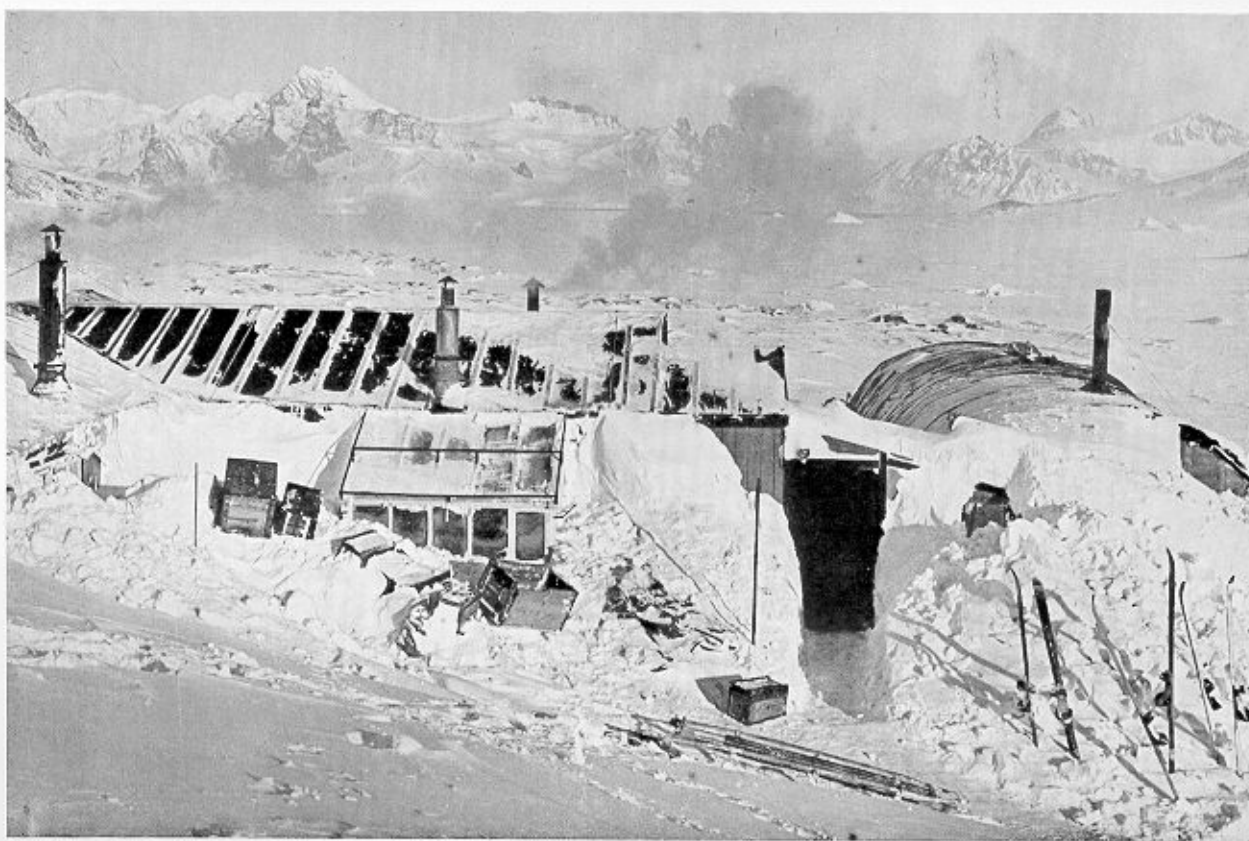


Fig. 2. Base huts at Stonington Island, Marguerite Bay

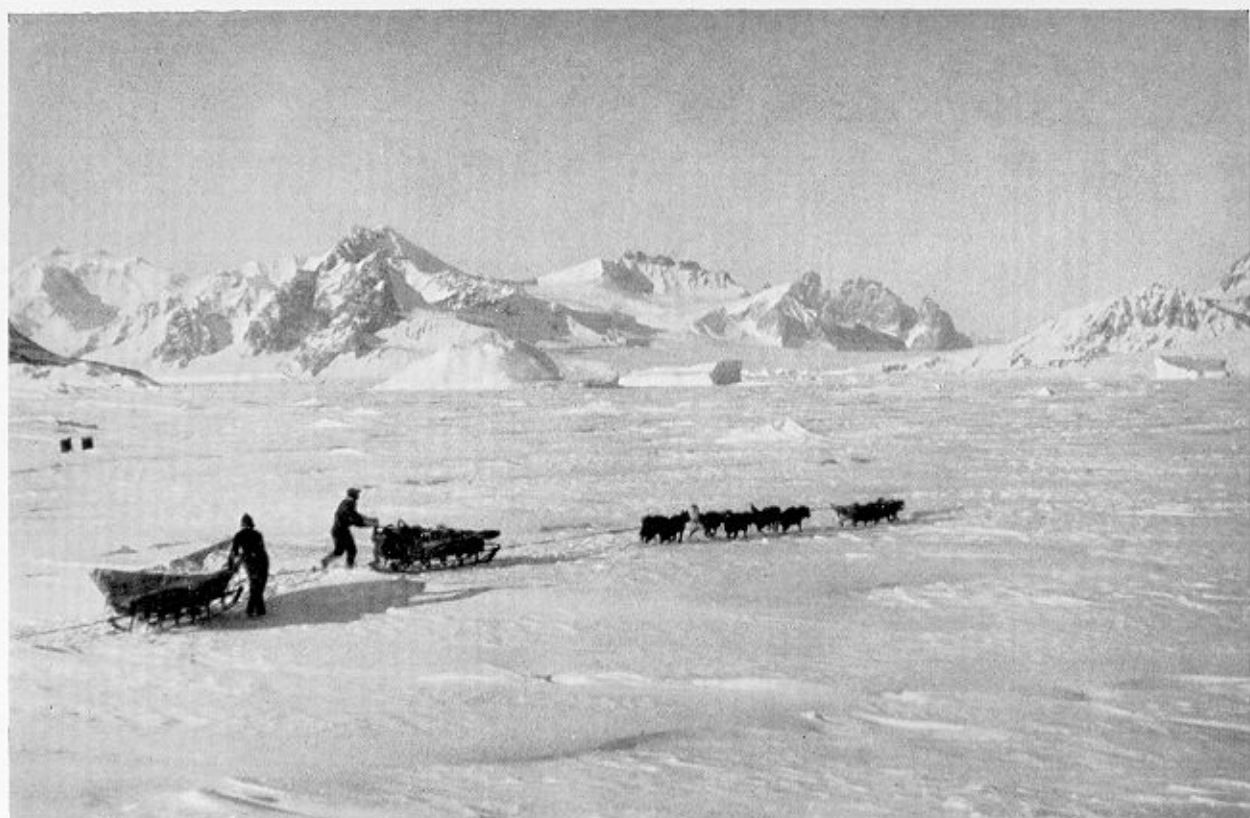


Fig. 1. Dog team leaving Stonington Island



Fig. 2. The Douglas Range (9,000 to 10,000 ft.), Alexander I Land



