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THE ROLE OF DECEPTION ISLAND

IN THE DEVELOPMENT OF ANTARCTIC AFFAIRS

By

J B Killingbeck

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Emmanuel College
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The island of Deception as far as regards description may be summed up in a very few words. It is a place of strange contrarities, it is agreeable, it is disagreeable, its scenery is beautiful in one sense, and horribly ugly in another, it is hot, it is different from any other part of the world and yet in many aspects much the same, in short it is, volcanic; perhaps as our men were heard to say, "it is the last place that Nature made," and if volcanoes are the habitations of demons and goblins, they may live there in perfect peace and quietness.

Private journal of Midshipman Kay, HMS Chanticleer, 1829.

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ABSTRACT

This is a study to present the evidence to show that Deception Island has played a significant role in the development of Antarctic affairs.

It covers the involvement of the island in sealing, discovery, scientific exploration, flying, whaling, disputed colonialism and the final evacuation of the island due to the volcanic eruptions in 1967, 1969 and 1970.

It suggests that there can be a future for Deception Island so that once again it can assume an important place in the events of this region and become again the 'capital'.

DECLARATION

This study stemmed from the interest gained by spending 14 months on Deception Island at the British Base, 1961-62.

This was an interesting international Antarctic experience with constant contact maintained with the two foreign bases.

I would like to thank my companions for their encouragement and help on various studies and travels, and to the aircrew for providing the facilities for photography. Unless otherwise stated the photographs are my own.

I declare that this dissertation is not less than 10,000 words and not more than 20,000 words. The ideas expressed are my own.

J. B. Killingbeck.

J B Killingbeck
Emmanuel College
Cambridge

May 1977.

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Captain D Turnbull of the RRS *Shackleton* gave information on the whaling remains at Deception Island, Dr R Gambell of the International Whaling Commission gave advice on present whaling and G E Hemmen information on the island in the early 1950's. A G E Jones gave valuable help on the sealers and Lt. Cdr A C F David at the Hydrographic Department, Taunton, gave me every facility to study their collections and to photograph the painting by Lt E N Kendall shown in Plate 34.

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The Role of Deception Island in the Development of Antarctic Affairs

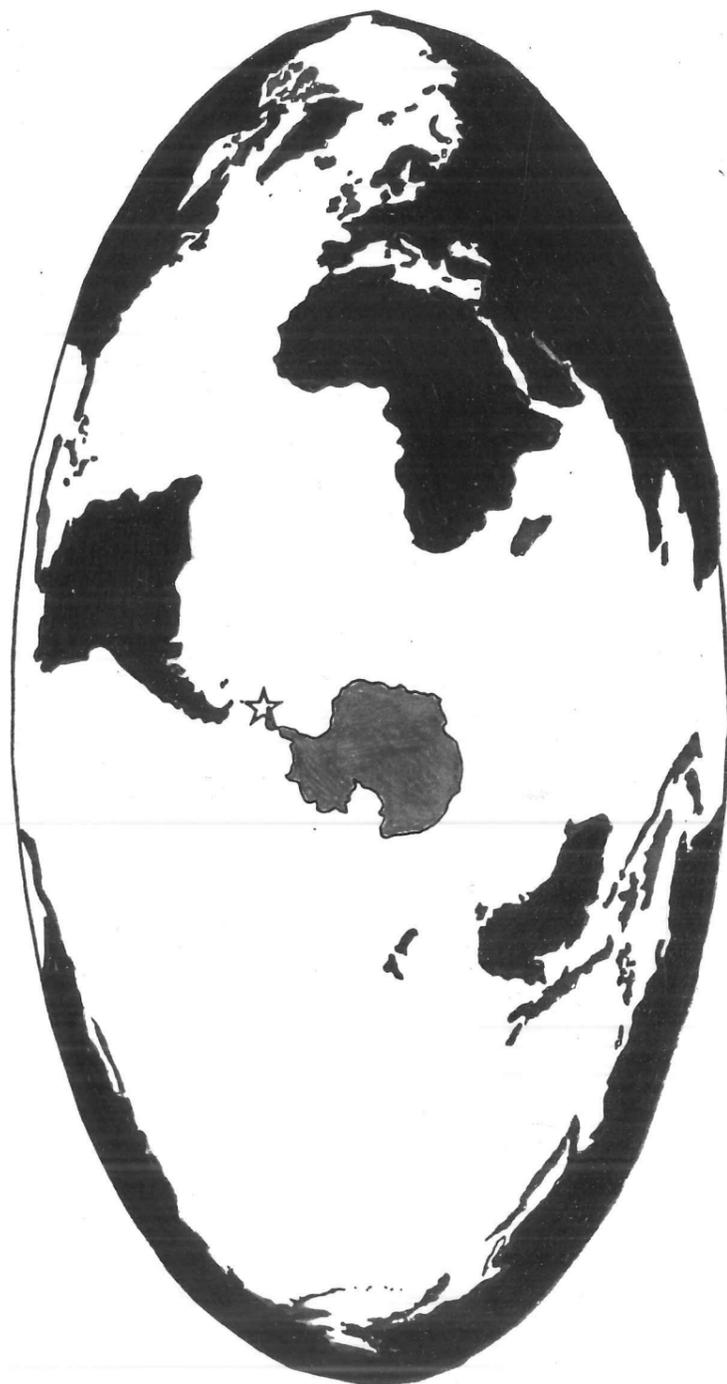
Throughout the world there are certain places that assume a dominant role in the development of the affairs of their region out of all proportion to their size or outward significance. The causes may be due to the geographical situation, to patterns of history, to chance factors or to a combination of all three. Many become capital cities and maintain their supremacy; most achieve a primary role for a certain time and then subside into relative obscurity. Deception Island is such a place.

For almost 150 years it has been the focal point of this frontier region. The waves of movement associated with the development of this area have come from Europe, North America and neighbouring South America to converge on this isolated caldera island (Figure 1 and plates 1 to 16). The discoverers and sealers, the early scientific explorers, the whalers, the aviators, the 20th century scientists, the politicians and even the more recent tourists have used Deception Island as a base, and at times refuge. At the moment the island is devoid of permanent human habitation; it has been sullen and brooding since the catastrophic volcanic eruptions of 1967, 1969 and 1970.

Deception Island is without doubt unique. Visitors to this isolated volcanic island have described with vivid detail its flooded harbour, the steaming beaches and the contrasting ice clad slopes. The impact of this island on such visitors can be seen by the quotations taken from different phases of development (Appendix 1).

This concern with its 'Uniqueness' has masked a much more important aspect which concerns the central and dominant role that Deception Island has played in the development of the affairs of Lesser Antarctica.

It is not the intention of this study to be a chronological, historical narrative of these affairs. Rather the aim is to be selective. To pick out the



A GEOPOLITICAL VIEW OF ANTARCTICA

salient contribution of this island to the important factors in the periods of development. To facilitate this an attempt has been made to portray the geographical setting and some of the important historical events of the island by the means of photographs. It is hoped these will provide a background to an understanding of the various roles that Deception Island has played in Antarctic affairs.

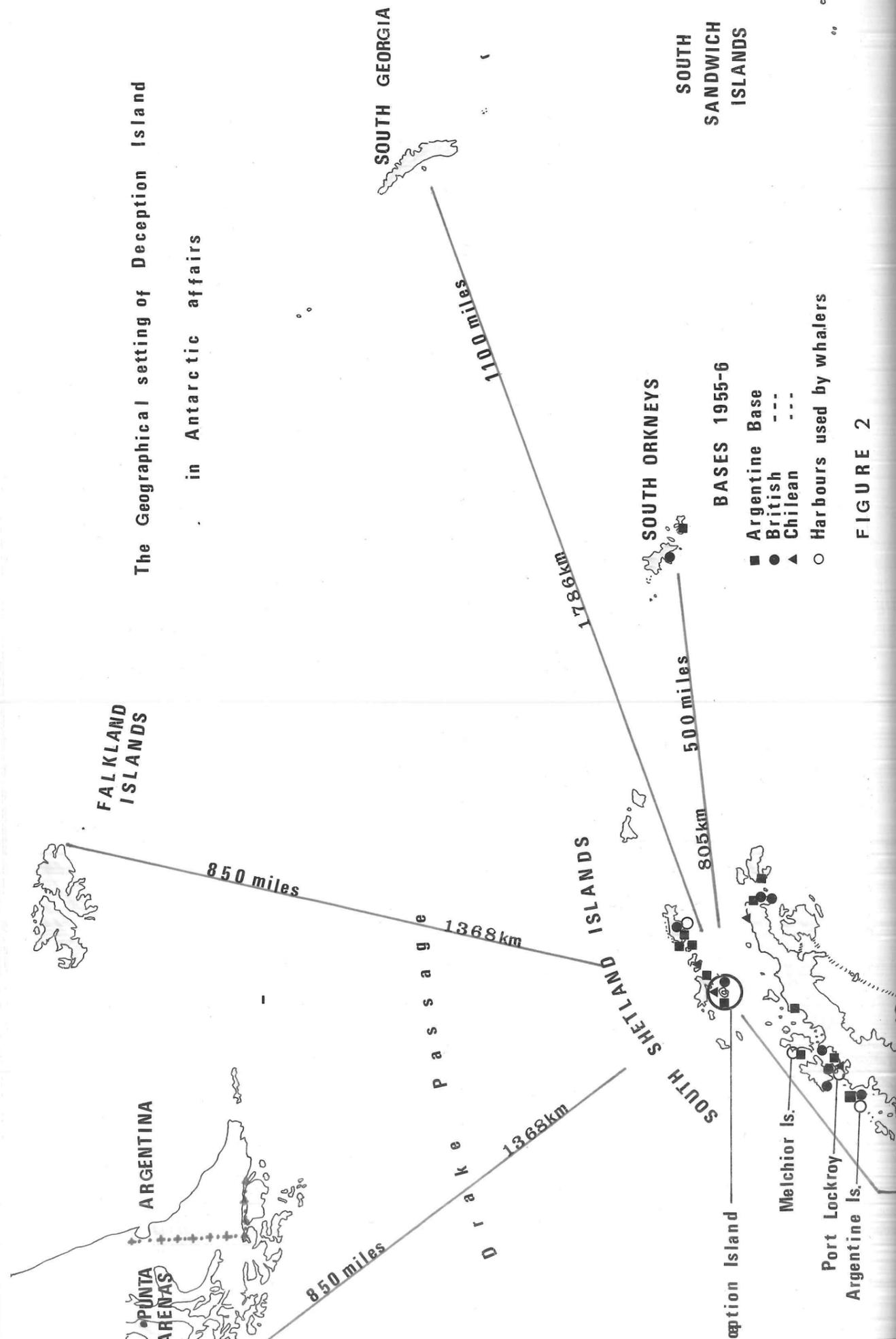
It is interesting to note in this introduction, the many 'firsts' in the history of Antarctica that are associated with Deception Island. Perhaps a good indication of the importance of this small caldera island. Such 'firsts' include the possibility of the very early sighting of the mainland of Antarctica from the slopes of Mount Pond, the first chart by Robert Fildes in 1820 (Figure 9), the first true scientific expedition of Captain Foster in the *Chanticleer* (1828-29) and connected with this expedition the first accurately surveyed land map by Lieut. E N Kendall, RN, and possibly the first Antarctic painting, also by Kendall (see plate 17). Another rather dubious 'first' of this expedition included the finding of a human grave; that of a sealer in Pendulum Cove. In the busy whaling era Deception Island became the first Port of Entry in the Antarctic in 1912, (excluding South Georgia, a sub-antarctic island). Attached to the land whaling station was a magistrate, a customs officer and a post office, all operating from 1912 onwards. The first Antarctic radio licence was also issued in 1912 to the factory ships operating off the South Shetland Islands. A cemetery was established in 1907 and this commemorated 34 persons at the time of its destruction by lahars in February 1969. Aviation history was made in November 1928 when the first Antarctic flight was made from the ash runway by Hubert Wilkins. In the more recent period the sheltered harbour became the prime centre for international claims and disputes between Great Britain, Argentina and Chile. An interesting but very minor event occurred in 1953 when a sailor was charged for an offence under the wildlife ordinance. He was found guilty by the magistrate and fined £2. This is thought to be the only

civil case ever heard and tried in the Antarctic.

However it is the physical features which underlie the importance of Deception Island. It has the finest natural harbour in the Antarctic, a constant and unique supply of fresh water and one of the relatively few places where man can construct a land airstrip.

This study is seen through the eyes of an Englishman and it probably does not give enough weight to the importance of the island as seen through Argentine and Chilean eyes. It has been considered of great importance to these countries who established bases here in 1947 and 1955 respectively. The island was fully administered by Great Britain during the whaling era from 1910-1931. This administration was not disputed until 1940. For the past 30 years the island has been occupied by three distinct and separate national units who each claim the island. Figure 4 shows how close they are to each other.

The last chapter of this study dwells on the future place that Deception Island can play. It is suggested that a land runway, capable of accepting inter-continental aircraft, should be constructed on Kendall Terrace. It would be used primarily to support the development of marine and mineral resources but also to promote international tourism. Deception Island is one of the few places in the Antarctic that cannot be considered 'precious' and it would be a sensible policy to concentrate tourism at such a place. It has its own spectacular wildlife and is in close proximity for controlled visits to the other South Shetland Islands and the mainland. Port Foster still offers the finest sheltered anchorage in the Antarctic and could become a base for the economic developments. Other possible uses are mentioned in the text.



The Geographical setting of Deception Island in Antarctic affairs

CHAPTER 1

GEOGRAPHICAL SETTING

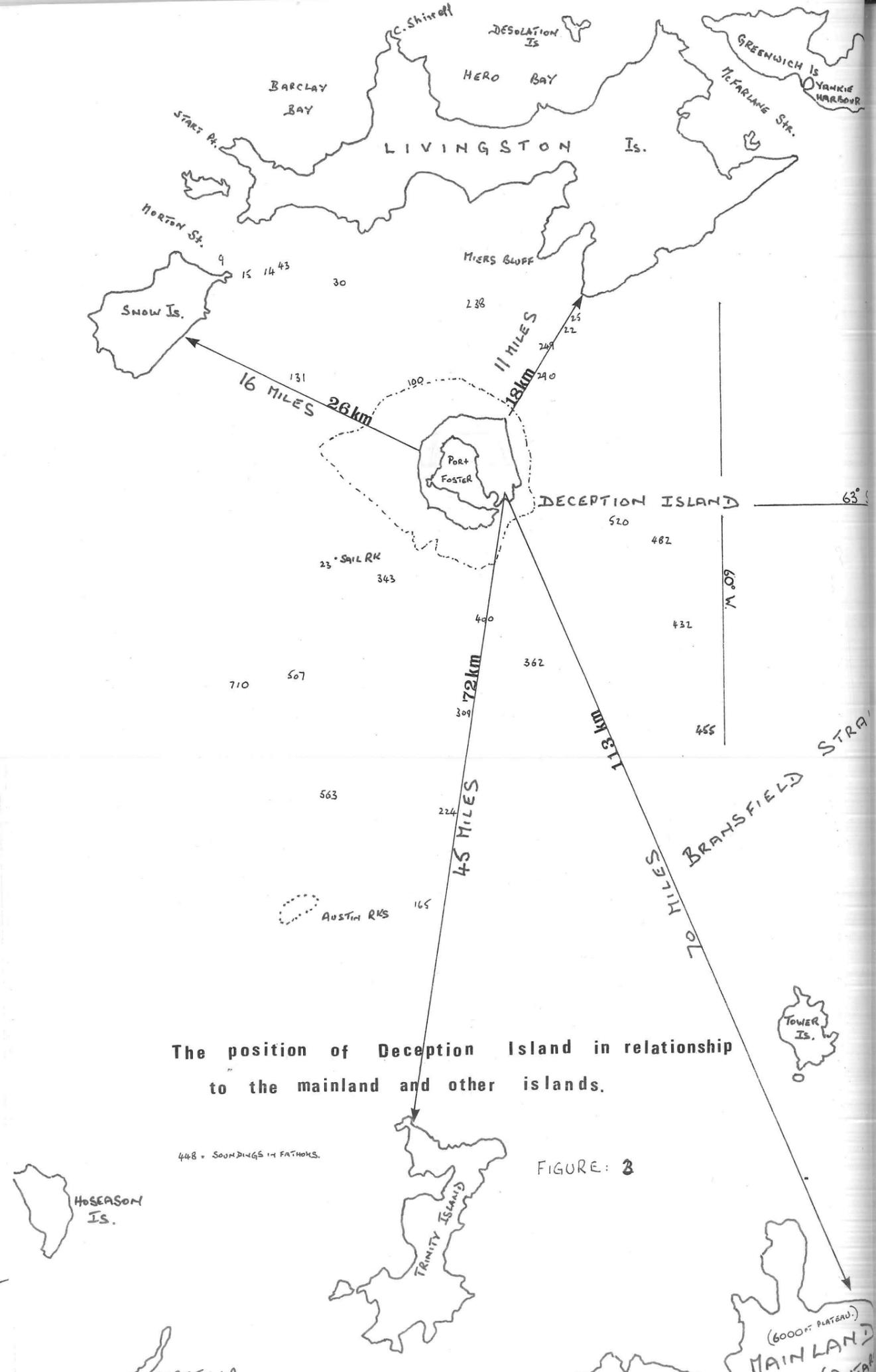
The Position

The position and geographical setting of Deception Island (Latitude 62° 75'S. longitude 60° 34'W) in the South Shetlands is the key to its importance.

The geopolitical map (Figure 1) demonstrates how the Antarctic Peninsula protrudes like a finger towards the South American continent. In reality it follows the line of islands forming the Scotia Ridge but in practice it appears as a bridge between the known and unknown with the South Shetland Islands acting as stepping stones. Figure 2 shows the relationship of Deception Island to its neighbours. Punta Arenas in Southern Chile and Port Stanley in the Falkland Islands lie approximately 1368 km (850 miles) to the north, South Georgia 1770 km (1100 miles) to the east and 805 km (500 miles) separates Deception Island from the South Orkneys and Maguerite Bay. In contrast Figure 3 shows how close Deception Island lies to the mainland, 113 km, (70 miles) and to Livingston Island 18 km (11 miles). Plates 4A and 49 give a view of the closeness of Livingston Island and the panorama in plate 16 shows how clearly the mainland can be seen from the slopes of Mount Pond. The vista shown covers 250 km from Brabant Island to Mount Bransfield.

FIGURE 2

What harbours and shelters exist in this region? South Georgia offers excellent shelter on its east coast. Cumberland Bay, Stromness Bay, Fortuna Bay and Possession Bay are examples. These however are situated over 1000 miles from the mainland. There are no harbours in the South Sandwich group and only Signy Island in the South Orkneys. In the South Shetland Islands there is a harbour at Admiralty Bay on King George Island but this suffers from calving ice, poor holding and bad approaches. It was however used extensively by the whale factory ships. On Greenwich Island is Yankee Harbour famous in the days of sealing but too small for most modern use. Livingston Island offers many small



The position of Deception Island in relationship to the mainland and other islands.

FIGURE: 3

coves for small ships like those of the 19th century sealers (400-600 tons) but these coves only give protection against certain winds. (The logs of the sealing ships constantly refer to them altering their moorings due to wind changes). In fact the only true anchorage in the whole region is Port Foster at Deception Island. Even on the mainland there are no comparable sites. Melchior Islands, Port Lockroy and Neko Harbour plus some others (See figure 2) have all been used by the whalers but all suffer from defects such as calving ice, poor holding or lack of shelter from certain wind directions with the dangers of drifting ice. This lack of suitable alternative harbours helps to explain why Deception Island was selected by so many users in the various phases of development.

An impression of Deception Island can be obtained by referring to Figure 4 and 5 showing topographic and hydrographic data respectively and Plates 1 to 16.

The Geography of the Island

There are four important aspects of the geography of the island that concern this study: the caldera harbour of Port Foster, availability of fresh water throughout the year, ice free surfaces and volcanic activity.

It is the geography that makes Deception Island unique. It is an island of contrasts. Wildlife is abundant on the most sterile landscape imaginable; black ash contrasts with virgin snow, water boils on the beaches next to frozen sea and one moment the harbour is full of krill, fish and life; the next all is empty and sullen. No greater contrast could be found anywhere than between the black lunar landscape of summer and the white pristine winter scenes (compare plates 7 and 9).

Geologically, Deception Island is a very young feature, probably little more than 1 million years old and still evolving (Baker and others, 1975). It has been created as part of the back-arc mechanism associated with the miogeosyncline of the subduction zone in plate tectonics. This lies to the west of the South Shetland Islands where a deep submarine trench gives over 6000 ft amplitude between sea floor and land summits. Between these islands and the mainland lie other deep

DECEPTION ISLAND

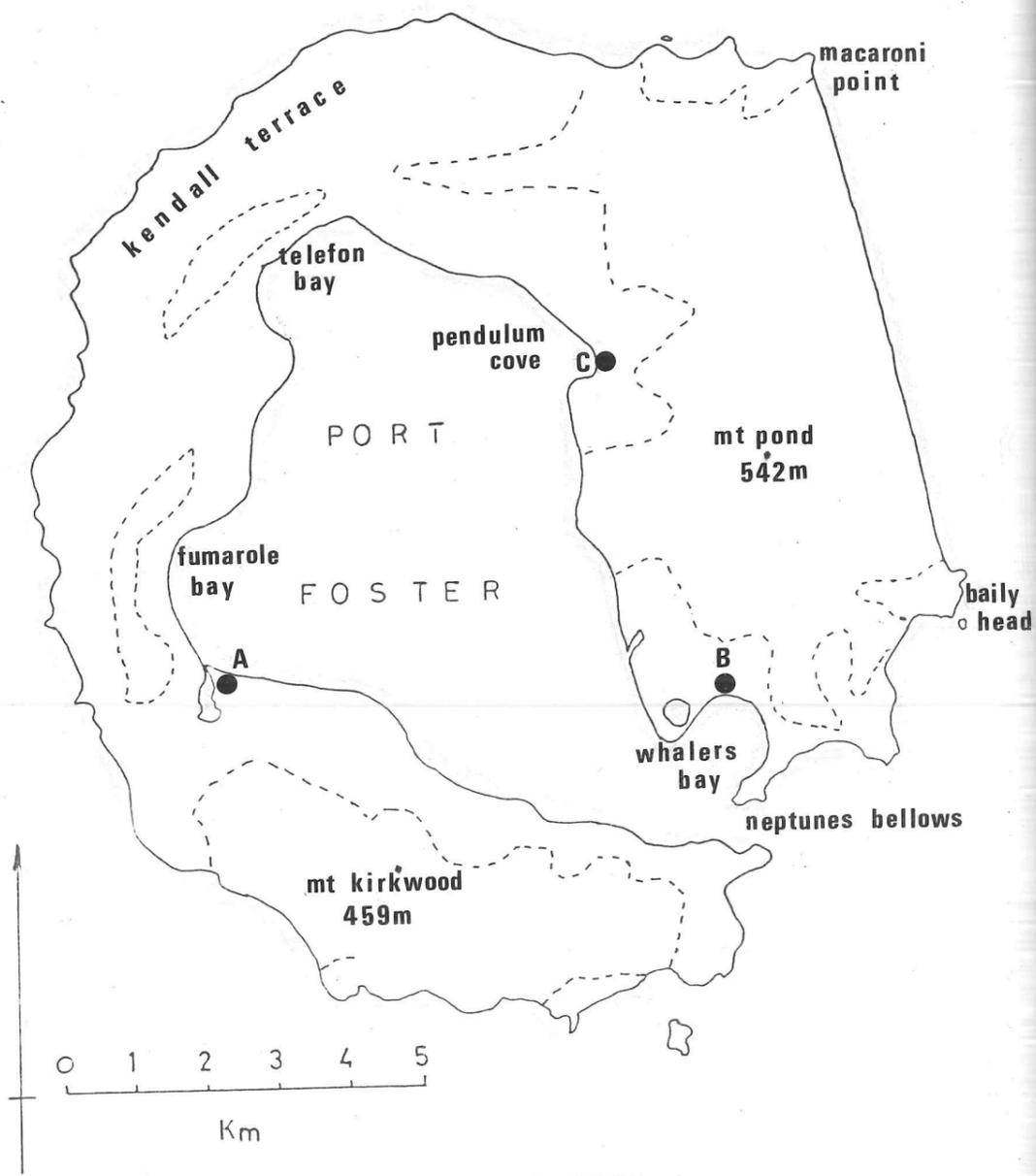


FIGURE 4

- A ARGENTINE BASE
- B BRITISH --
- C CHILEAN --

basins in the Bransfield Strait. Deception Island is at the edge of such a basin and figure 3 shows depths of over 500 fathoms a short distance offshore. Both of these basin zones have important bearings on the marine resources and will be referred to later.

The island is very active volcanically. Fumaroles were reported by the sealers in the 1820's with reports of explosive activity by the sealer Smiley in 1844 (Wilkes, 1845). Recent work since the 1969 eruptions, has shown that there have been many active phases in the recent historic period (Orheim, 1971). The main episodes started in 1967 when a new island was formed in Telefon Bay and continued in 1969 when lahars totally destroyed the Chilean Base and badly damaged the British Base. All three bases were abandoned after the 1967 events. Further disturbances were reported in 1970 (See plates 43 to 47).

Port Foster is a magnificent natural harbour covering an area over 30 square kilometres in extent. Comparable to the well known Rio de Janeiro harbour. Plate 14 shows three ships in Whalers Bay with ample sea room between them. Figure 5 shows 99 fathoms recorded in Port Foster and 56 fathoms in Whalers Bay. The sudden drop from the shore is a characteristic which has been of immense benefit for the mooring of ships, stern to shore, for taking on water and flensing the whales in the infancy of the Antarctic whaling industry (Figure 10, Plate 12).

The shore is composed of ash beaches, with the one exception of the snout of the Mount Pond glacier (Plate 6) and present no problems for landing. In contrast there are only a few beaches on the outer coast; most is steep cliffs.

The harbour has been formed by the breaching of the crater wall to give a caldera feature. It gives fine shelter against the storms of the surrounding oceans where there are few alternatives but it does have disadvantages. The great depths and loose ash present mooring difficulties as the holding capabilities of the ash are poor. Because of the size quite a fetch develops with winds above 22 knots and in gale conditions it can be uncomfortable without shore lines or permanent mooring buoys. The entrance at Neptunes Bellows is only 180 metres wide

Hydrographic data

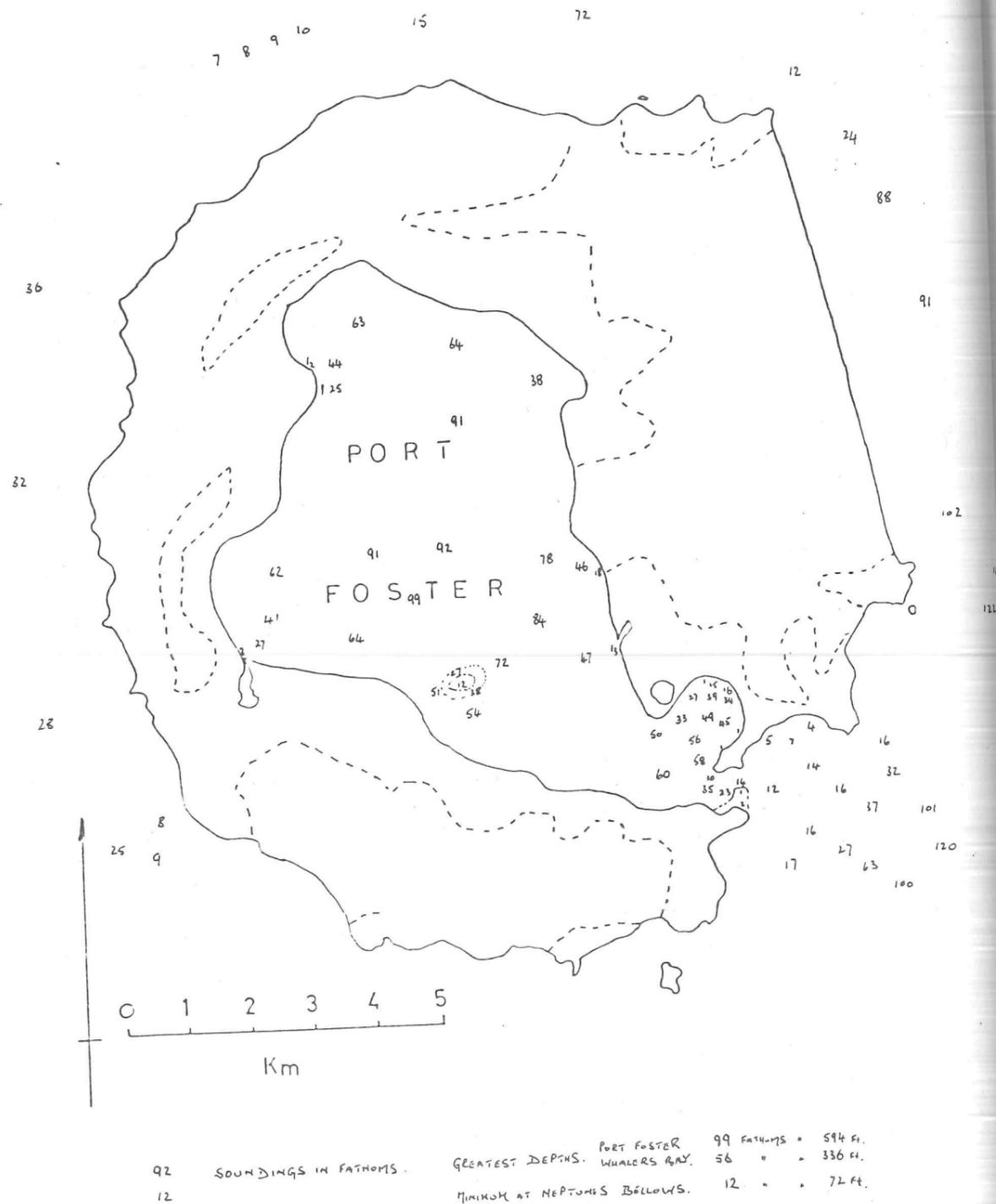


FIGURE 5

with a minimum depth of 14 fathoms. It is guarded by a sunken ledge from the southern shore which culminates in the notorious Ravn Rock. The wreck of the *Southern Hunter* (Plate 32) bears witness to this hazard. However the *Queen of Bermuda* 22,575 tons successfully negotiated it in 1942 (Jones, 1974).

Of equal importance to the safe anchorage has been the freely available fresh water supply. This has come from wells sunk in the ash a few metres from the shoreline (Figure 10 and Plate 31). The water comes from the freezing of the ice and snow cover and is found between the permafrost layer one metre from the surface (personal observations) and the warm ash of the volcanic activity. The permafrost remains, although by the end of the summer it is a layer 500 mm thick between the hot ash and the surface. This water can be obtained from any of the hot beaches and measurements from "Biscoe Well" show that the temperatures remain constant at approximately 13°C (Appendix 16). Both the British and the Argentine bases were supplied from wells sunk beneath their buildings with constant fresh water.

The third important factor is the availability of ice and snow free surfaces. The geomorphological history has given Deception Island a series of flat surfaces due to marine influences. Kendall Terrace (76 metres) and a terrace a few metres above present sea-level are the important ones. Plates 7 and 9 show the summer-winter contrast. This is due mainly to a maritime climate, high conduction rates for the black ash and subterranean heat. The blowing of black ash onto the snow surface at the end of the winter period also greatly speeds up the melt. The result is a large dry oasis area within the caldera (see Figure 4 and plate 9). This has been a vital factor in the construction of the whaling base, the airfield and the later national bases.

The climate can be described as maritime antarctic. Maritime due to the warmth and moisture from the surrounding oceans and Antarctic due to the cold air movements initiating from the Weddell Sea high pressure zone. One result is an abundance of stratus cloud on the ring mountains in summer and large accumulations of rime in winter (See Appendix 3A and 3B for climatic data) (12 cm of rime on poles was common at 400 metres).

Port Foster freezes from June to mid-November but generally the climate is more maritime than Antarctic. Sea ice presents difficulties to shipping outside the island from approximately mid April to mid December but it is always very variable. There is a good prospect of a modern ice-strengthened ship reaching Deception Island at anytime in the winter but this has not been attempted. Strong, continuous winds in the NW - NE sector are common (see figure I and climatic tables).

Note. The annexed sketch of Description particularly the
North side will be found as correct as can be
expected. for eye drafts can never be so accurate as
when a place is trigonometrically surveyed. Let you
take what other pains you will

saw, that the first sealers who devoted a few weeks to fishing around these islands must, of a necessity, have discovered the mainland too."

Nordenskjold. 1902.

What part did Deception Island play in these hectic five years of sealing (1819-1824)? Sealing for the fur seals mainly took place on the rocky foreshores of Livingston Island, King George Island and the smaller islands. The vessels were small (*Cora* 267 tons, *Lady Troutbridge* 200 tons) and shelter was found in surrounding coves. With a wind change the boats moved anchorage but many were lost. Rugged Island, Clothier harbour and New Plymouth are examples of such centres.

In 1820 Deception Island became the home of the comparatively large American sealing fleet from Stonnington under Captain Pendleton. It played a vital role in the claims of Palmer of discovering the continent in November 16th, 1820 as it was from the slopes of the island that Pendleton is reported as seeing the mainland and so instructing Palmer on his voyage in the *Hero* (Plate 19). Plates 16a and 16b leave no doubt that the mainland can be seen from the slopes. In theory it should also be visible from Neptunes Window:

Visibility table

Height of observer	Distance seen
1000 ft	41.6 miles
2000 "	58.9 "
3000 "	72.6 "
4000 "	83.3 "
5000 "	93.1 "
5 "	3.0 "

Whittaker's Almanack 1975.

It was also from Deception Island that Palmer set off for his discovery of the South Orkney Islands in company with the British sealer Powell in 1821.

The harbour of Deception Island was known as Yankee Harbour and it was almost certainly used as a harbour and shelter rather than as a sealing area. There is only one significant beach on the outer coast at Baily Head and few seals have ever been reported from the inner harbour. Pendulum Cove was the

area used by the Stonnington fleet.

"came a Anchor in Deception Harbour now called port Dunbar - found laying at this harbour Brig Frederick Schooner Express Sloop James Monroe Schooner Freegift and sloop Hero all of Stonnington."

Log book of the *Alabama Packet* 1821.
Bertrand 1971 p. 124

Bertrand (1971) discusses clearly the involvement of the American sealers and quotes the log of the *Hero* as evidence of his discovery of the inner harbour at Deception.

"saw an opening Stood in found it to be a spacious harbor with very deep water 50 or 60 fathoms got out the Boat to sound found Anchorage about a mile and half from the mouth."

Bertrand 1971 p. 67

He suggests the only other possible claimant to the discovery of the inner harbour could be the British sealer Macfarlane.

The importance of the discovery is that it was from this harbour that voyages of exploration set out to try and locate new sealing grounds.

Robert Fildes gives the first detailed accounts of the island (Fildes 1829) and the first chart ever published from Antarctica (Figure 9). He shows that in some ways Deception Island was not an ideal base as it must have taken time to reach the sealing grounds with adverse wind.

"The entrance into this shell of an island is not much more than 100 fathoms across at the atmost; there is barely room for a fore and aft rigged vessel to turn in or out without a leading wind."

His description of Pendulum Cove:

"This Elephant was the only creature we saw alive in the whole of this extensive basin..... close up in the NW part of it is the Cove where the vessels lie, which is very safe and commodious and will contain about a dozen vessels in tiers; they may moor by burying one anchor on shore; but without there are many vessels, it is almost immaterial how they moor, for when it blows hard they may be laid onshore, where they will lie quiet without straining their ropes."

He also describes, like Pendleton, how the mainland can be seen from Deception Island.

The celebrated meeting of Bellingshausen and Palmer is portrayed in the lithograph from Fanning (1834) shown in plate 18. Allowing for artistic embellishment this could be a view from Entrance Point as the mainland could

be visible. Bellingshausen did not enter Port Foster (Bellingshausen 1945).

This sealing period was a very hectic, important but very short episode in Antarctic affairs. Discovery was made in 1819 by Smith in the brig *Williams*. By May 1820 this news had reached England and even Bellingshausen had heard of the discoveries on his voyage from contacts in Rio de Janeiro. Vessels were bought and equipped within two months from English ports and the journey took approximately 68 days (*Cora* took this time - Jones, A G E, personal communication). In the 1820-1 season there were 44 American and English sealers and by 1821-2 this had risen to 91 (Roberts, 1958).

It is surprising that neither Williams nor Bransfield mention the island as it is so close to their tracks. Perhaps it was already the prerogative of American sealers from Stonnington by the time Bransfield arrived in 1820 or was the entrance just too deceptive? (Plate 4).

The slaughter of the seal was continuous. Weddell described it well (Weddell 1827):

"The quantity of seals taken off those islands, by vessels from different parts, during the years 1821 and 1822, may be computed as 320,000 and the quantity of sea-elephant oil, at 940 tons."

As the American sealers were of major importance and as they used Deception Island as their base and haven the island did play a significant role at this time. Its role of providing a base and shelter for exploratory voyages of discovery was to be repeated many times in the future.

The *Chanticleer*. 1829

Since the IGY (1957) period Antarctica has rightfully become identified with pure scientific study. The natural laboratory of Antarctica has been used for the study of many disciplines by scientists from many nations. The expedition of Captain Foster in the *Chanticleer* (Webster 1834) to Deception Island in 1829 can be considered as the beginning of this era. This was the first truly scientific expedition to Antarctica, based on Pendulum Cove, Port Foster, Deception Island.

There were four important contributions:

1. The pendulum and magnetic observations (the main purpose of the expedition).
2. The construction of the first authentic land map.
3. Detailed descriptions of Deception Island particularly the temperature measurements.
4. The claiming of land for Britain.

The expedition left Portsmouth on the 24th April 1828. The *Chanticleer* was a sloop with 10 guns and carried a total complement of 56 (15 officers, 15 petty officers, 6 private marines, a sergeant, corporal and 18 able seamen). It was a very single minded expedition with the specific aim of carrying out the pendulum and magnetic observations at different localities. On his way South these were at Rat Island, Montevideo and Port Hatchetts, Staten Island where they spent one month.

It was on the 7th January that formal possession was made at Cape Possession (Hoseason Island).

"Captain Foster and myself left the ship with the view of effecting a landing, and taking possession of what we were aware was a new discovery..... A copper cylinder was deposited at the landing place, enclosing a paper with the usual information."

Although Robert Fildes had provided excellent accounts of Deception Island the narratives of Captain Foster (in Webster), Webster, Kendall and Midshipman Kay are superb.

"Here we are in an uninhabited and remote part of the world making our way up a harbour large enough to contain the largest fleet ever seen."

"The harbour or Cove that we are laying in has in some parts got shallower and who knows but in the space of a few years, the whole of this splendid basin which the island contains may be filled up also, new harbours formed, and the face and character of the island entirely changed. It appears likely to me!"

Both from Midshipman Kay's Journal
1828.

What a prophetic statement considering the events of 1967, 1969 and 1970
(Chapter 7).

The expedition entered Deception Island on the 9th January and departed on Sunday 8th March, 1829. Plate 21 gives a good impression of the *Chanticleer*

and the base camp site in Pendulum Cove. The map shown in Plate 22 was compiled by Lt. E N Kendall between the 2nd and 14th February. It is a splendid map and was recently used for a comparison of changes in the topography of the island (Roobol 1973). The base line was measured by firing an 18-lb canon.

In Midshipman Kay's words:

"..... a party was despatched to fire the gun for measuring the base line. The interval between the flash and report at the tent, by the mean of several observations was 20 beats of a watch beating 10 times in 4 seconds therefore the distance between the tent and gun will be 9136 feet or 1 mile and $\frac{1}{2}$."

Plate 20 gives an indication of the hydrographic work that was carried out on this expedition. It can be seen that Deception Island was used as a central control for the survey.

In addition to this survey work Lieut. E N Kendall painted what is probably the first Antarctic painting (Plate 17a and 17b). A more unfortunate result concerned the deposit of a self-registering thermometer at the head of Telefon Bay. This was later retrieved by the sealer Smiley in 1842 and the record of a minimum of -20.3°C sent to Lt. Wilkes. For a further 56 years this was thought to be the lowest temperature that one would experience in Antarctica in the winter (Record low = -88.3°C Vostock. Hatherington, 1965). No fur seals were mentioned in the descriptions which indicates their extermination by 1829. The final departure of the *Chanticleer* took seven days due to high winds and poor holding of anchors. This shows the difficulties of working sailing vessels in the harbour and through Neptunes Bellows in poor weather.

This expedition was important in Antarctic affairs. It achieved what it set out to do and but for the unfortunate drowning of Captain Foster in a canoeing accident in Central America on the return journey more would have been heard of it. It heralds the start of pure science in Antarctica.

National Expeditions and Later Sealing

After these pioneer days of sealing and discovery, followed so shortly afterwards by the *Chanticleer* expedition, Deception Island becomes a quiet haven

in Antarctic affairs until the beginning of the whaling era in the next century.

The remaining 19th Century was dominated by three types of expedition:-
(See Roberts, 1958).

1. Sealing
2. National exploratory and scientific

Dumont d'Urville	French	1837-40
Charles Wilkes	USA	1838-42
James Clark Ross	British	1839-43
G S Nares (<i>Challenger</i>)	"	1872-76
Eduard Dallman (<i>Grönland</i>)	German	1873-74
Adrian de Gerlache de Gomery (<i>Belgica</i>)	Belgium	1897-99

3. Pioneer whaling expeditions

Dundee Whalers	1892-93
Larsen	1892-93
"	1893-94
Bull	1894-95

Dumont d'Urville sailed around Deception Island in March 1838. He took observations at the Entrance ($62^{\circ} 57'S$, $63^{\circ} 10'W$) but does not appear to have entered the inner harbour. The map attributed to him in Plate 23 appears to be an exact copy of Kendall's 1829 map.

Wilkes sent Lt. Johnson in the *Sea Gull* to Deception Island in 1839. He arrived on the 10 March and left on the 17th. During the weeks stay the weather was very bad. He failed to find the self-registering thermometer left by Foster but provides good descriptions on the abundance of wildlife, especially the penguins and leopard seals. The sealer Smiley sent Wilkes other descriptions including details from the minimum thermometer which he found. His accounts of the volcanic eruptions in 1844 were the first, and for many years, disbelieved. Recently the work of Orheim (1971) shows that 1844 was a period of active volcanicity.

Neither James Clark Ross nor the *Challenger* Expedition worked in this region. Gerlache in the *Belgica* sailed close to Deception Island but never used it. His seaman Weincke was tragically lost overboard off Sail Rock close to the island.

The sealers were active in the 1830's, 1850's and more prominently in the 1870's. In the South Shetlands in 1871-2 three sealing vessels took 8000 skins, in 1872-3 eight vessels took 15000 and 1873-4 six vessels took 10000 skins (Roberts 1958). No records exist to show whether or not Deception Island was used during these periods. The pioneer whaling fleets did not visit the island.

In conclusion to this 19th Century pioneering period one can see how Deception Island was at the centre of development in the initial phases up to 1829 as the base for the American sealing fleet and the home of the first scientific expedition to Antarctica. After this activities tended to by-pass the island. The canvas was now bigger than just the South Shetland Islands or Antarctic Peninsula.

1909. WHALERS BAY DECEPTION ISLAND

FROM 19

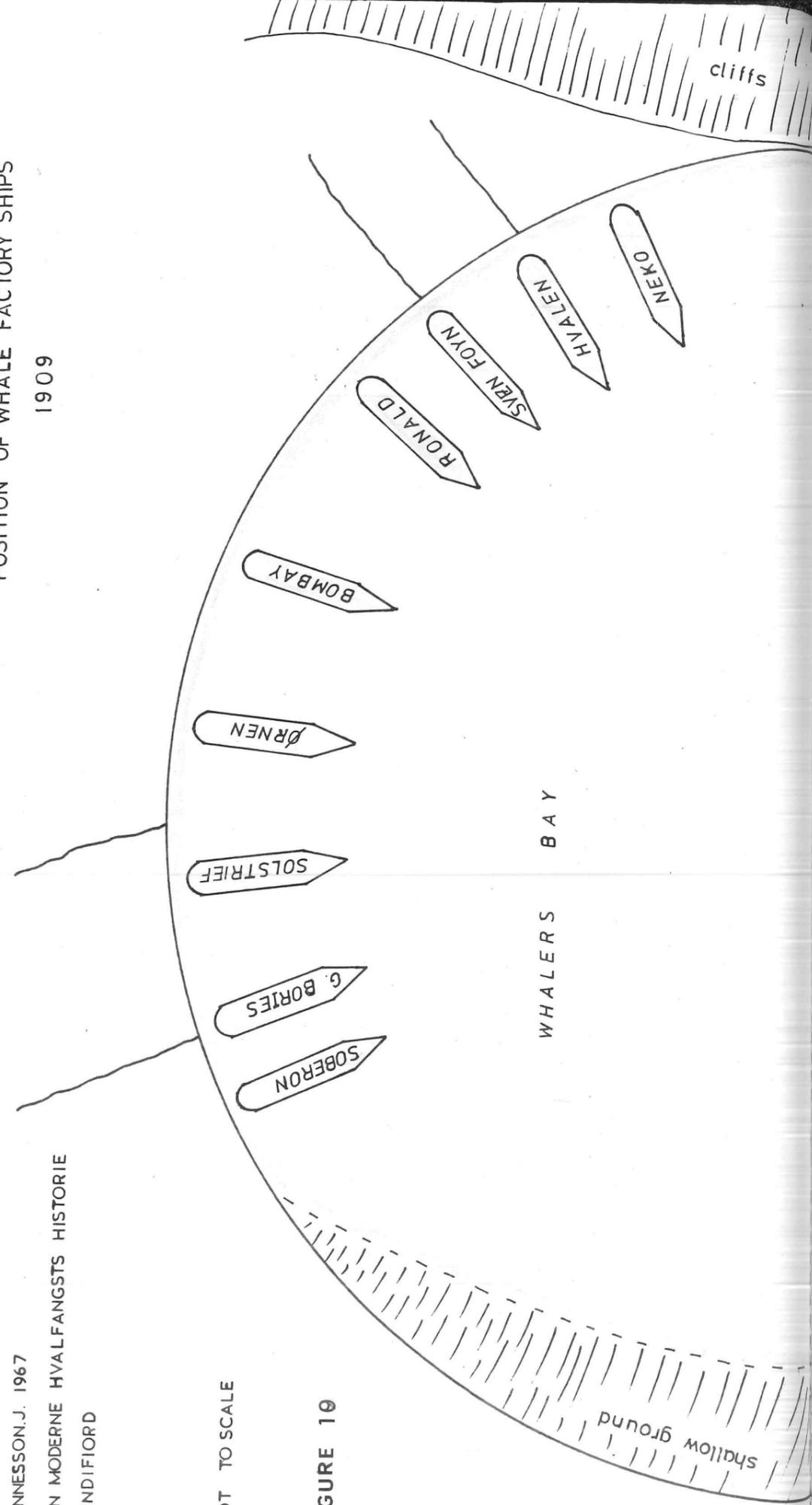
TONNESSON, J. 1967

DEN MODERNE HVALFANGSTS HISTORIE
SANDIFIORD

POSITION OF WHALE FACTORY SHIPS
1909

NOT TO SCALE

FIGURE 10



CHAPTER 3

WHALING 1905-1931

Deception Island came of age during this whaling period. At one time it rivalled and even eclipsed South Georgia as the major Antarctic whaling centre. Over 5,000 whales were being towed through the entrance each season for processing (Figure 13).

Not only was this whaling industry a lucrative one for successful companies but it also produced a useful revenue for the Falkland Islands from the licences and taxes. After 1924 these were made available for the launching and maintenance of the Discovery investigations.

Of greater importance to the subsequent history of the Antarctic were the acts of administration concerned with the control of this industry. These included laws on the conservation of whales and wildlife, the establishment of full administration with magistrates and postal services and the issuing of radio licences. The issuing of the Letters Patent in 1908 consolidated all previous claims to the Antarctic territory and were finally based on the need for administration to control whaling. The despatches of Governor Allardyce to the Secretary of State in London (Allardyce, 1908) show what an enlightened administrator he was. These 'Allardyce Papers' are of fundamental importance to the understanding of the early growth of the whaling industry. He realised a flourishing industry would be of help to his Colony and lead to a consolidation of British rights to this sector of the Antarctic. He appreciated the importance of conservation to maintain stocks and to balance this with a reasonable financial return for the companies and their investors (many from the Falklands). He encouraged the use of radio communications by issuing licences and fully realised the importance of postal services as a sign of official administration. His despatches clearly show that Deception Island was of central importance to all developments in the South Shetland Islands and Graham Land.

THE REMAINS OF FACTORY SHIP WELLS AND MOORINGS. JANUARY, 1962.

FROM NOTES AND SKETCHES MADE BY CAPTAIN DAVID TUNBYULL. R.R.S. SHACKLETON, 1962.

SKETCH MAP: WHALERS BAY, DECEPTION ISLAND.

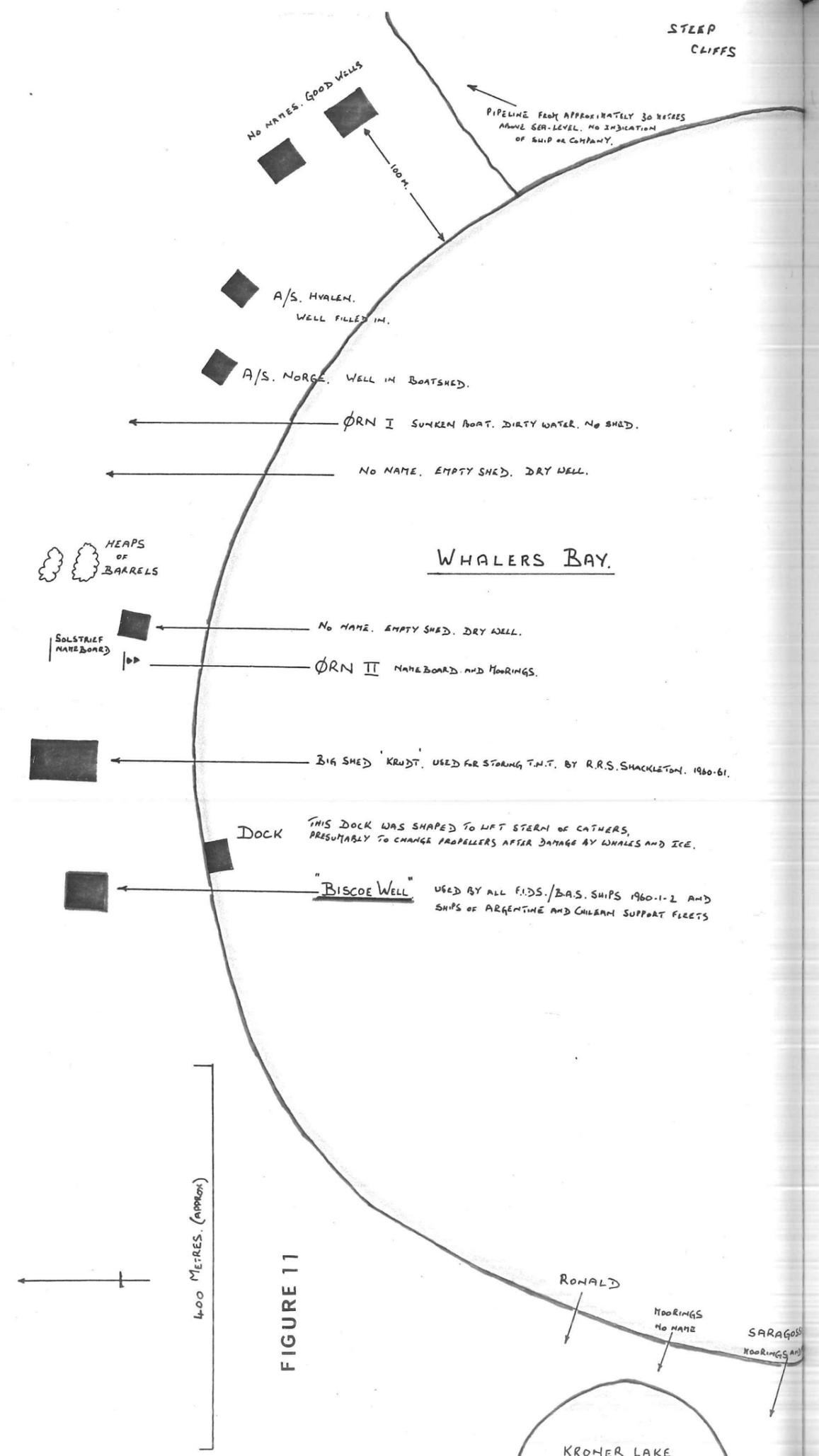


FIGURE 11

The Whaling Background

The 1905-14 period is characterised by the sudden and sustained interest in Antarctic whaling.

Part of the reason for this is due to the decline of whale stocks in the northern hemisphere but this decline was initially due to the restrictive practices of the fishermen in Northern Norway from 1904 onwards (Vamplow, 1975). The act preventing whaling off Finmarken was for 10 years but it was renewed for a further ten (Sandifjord, 1934 p. 98). This meant the Norwegian whalers had to seek new hunting areas in places such as the Shetlands, the Hebrides, the Faroes, Iceland and the Antarctic. Equally important was the drop in whale oil price in 1894 and 1895 (Appendix 4). In order to maintain profits greater catches would be needed to compensate for lower prices. After 1904 demand for whale oil increased because the Mond process allowed the oil to be made into solid fats for use in soap and margarine, a process of hydrogenation of the liquid. The product of glycerine was used in explosives so this gave whale oil a strategic value in the war years. A list of the uses of whale products shows its diversity and includes oil for domestic lighting, for softening jute fibres, as a meat, whale guano, bone meal, solid fats and glycerine.

Larsen established the first whaling in 1903 at South Georgia (Roberts, 1958) but it was soon realised that the waters around the South Shetland Islands were equally rich. In 1905-6 Mr Alexander Lange established the first factory ship, *Admiralen*, at Admiralty Bay with two catchers. He stayed only a short time but by the 1907-8 season there were four factory ships and eight catchers working from Deception Island.

Some appreciation of the richness of these areas for whaling can be judged from these first hand accounts:-

Captain Michelsen.....'he met a phenomenal number of whales, so many indeed that he had to stop going full speed otherwise he would have struck against them. He stated that when they spouted the sea simply smoked, and that the atmosphere for miles was thick with vapour.'

Letter dated 18 March 1909 from Governor Allardyce to the Earl of Crewe, Secretary of State for the Colonies.

Even as late as 1927 Alister Hardy was able to recount:-

.....'just found us close to Deception Island. Whales were blowing all round us and the catchers from the island were busy; the sound of their guns was frequent. All night their lights had been visible around us; we might have been among a fishing fleet in the North Sea instead of the Antarctic.'

(Hardy, 1967, p. 408)

The reasons for this richness seems to be due to the mixing of water of different temperatures which produces the right environment for plankton and krill. Hardy states that they found more krill eggs in the Bransfield Strait (p. 469) than anywhere else and his map of krill distribution emphasizes this observation. A feature of the Bransfield Strait is the strong current that brings from the Weddell Sea large icebergs. The resulting cold water meets the warmer Southern Ocean water close to Deception Island. A similar meeting of two water masses with different temperatures occurs in the deep trenches and basins. Plates 28A and 28B of whale catches show a remarkable correlation between these and the deep areas (Kemp and Bennett, 1932). (See the importance of this to the future of a fishing industry, Chapter 8).

This richness was bound to lead to the growth of the whaling industry in the area. Deception Island as noted in Chapter 1, offers the only sheltered anchorage throughout the region. In a letter dated 10 March 1908 Governor Allardyce states that the Newfoundland Whaling Company had to abandon whaling at the South Orkneys for the season on account of the inaccessibility of harbours. In the same letter he quotes Mr Lange's belief that harbours were the vital factor. This concern over shelter and harbours dominates these early days of whaling and the Governor realised that the industry could be controlled by regulating the use of the harbours and whaling within territorial waters. It must be emphasised that the whalers were tied absolutely to the use of sheltered anchorages within British territorial waters. This state of affairs was to last until pelagic whaling started in 1925.

The government knew little about the South Shetlands in 1908 (See letter 10 March 1908) and the administrators relied entirely on the knowledge and advice of the Norwegian whalers. In a letter dated the 18 March 1909 Mr Christensen, Manager of the *Antieselskabet Nor* did not consider it feasible

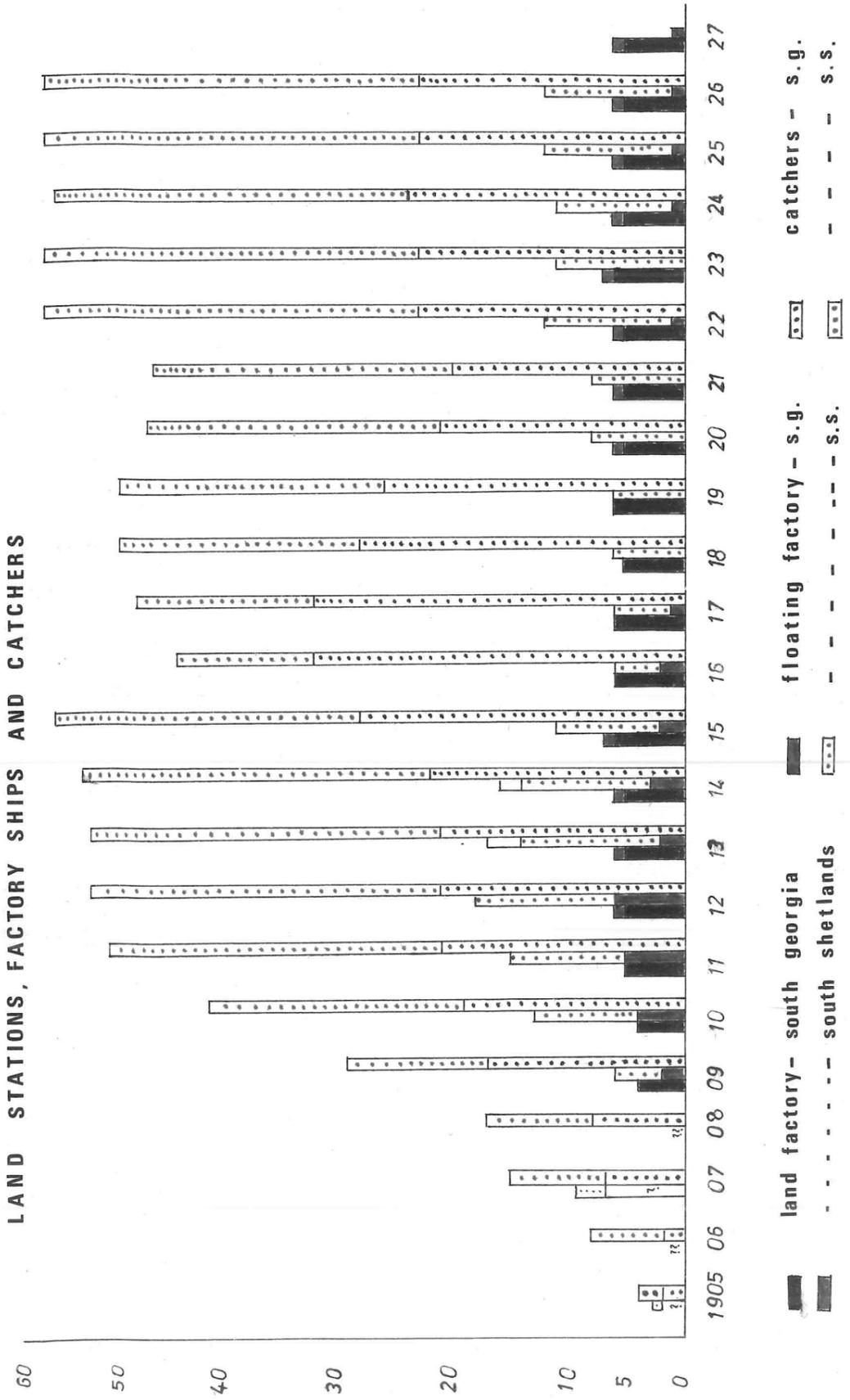


FIGURE 12
 SOURCES: INTERNATIONAL WHALING STATISTICS. OSLO, 1931.
 ALLARDYCE, W.L. DESPATCHES RELATING TO ADMINISTRATION OF THE FALKLAND ISLAND DEPENDENCIES. 1908-1915.
 SOFT POLAR RESEARCH INSTITUTE. N.S. 240/1-2.
 SOUTH SHETLANDS ALWAYS HAD MORE FLOATING FACTORY SHIPS BUT LESS LAND STATIONS, BETWEEN 1910-1915 AND AGAIN 1920-1926 MORE CATCHERS.
 EACH DOT REPRESENTS ONE SHIP

to construct a factory at Deception Island because of the precipitous mountains and loose ash. Captain Paulsen of the *Admiralen* thought that winter snow would cause the collapse of the roofs!

Figure 12 shows the land stations, factory ships and catchers. The South Shetlands (which refers to Deception Island) always had more floating factories but only one land station. Between 1910-1915 and again between 1920-26 it possessed more catchers. In the 1912-13 season there were 12 factory ships and 27 catchers. This produced the highest total whale catch (Figure 13), surpassing the South Georgia total. The graphs (Figures 14, 15) of the Blue, Fin and Humpback catches show that between 1908-1926 the whalers at South Georgia caught 7,000 more blue whales, but that those at South Shetlands caught 1,130 more Fin Whales. Humpbacks were of only minor importance in the South Shetlands catch. The oil production was higher at South Georgia due to the greater efficiency of the land stations but, as these figures show, Deception Island was a close rival to South Georgia.

The growth and importance of the industry at Deception Island can be seen in the list of companies and their licences in 1914-15, 1 land station 13 floating factories and 32 catchers. All were Norwegian except Salvesens of Leith and the Sociedad Ballenera de Magallanes from Chile (Appendix 5). The revenue from the export duty only yielded .3% which seems a low figure but Governor Allardyce was trying to encourage the industry. Could a higher tax at this time have reduced wastage? The incentives to produce a high total oil production rather than a high yield per whale can be seen in the wages shown in Appendix 7. The differentials between various employees are illuminating particularly between the Gunner and Master of a catcher. This system encouraged the woeful waste at Deception Island. (Wages were higher here than South Georgia as the hours were longer due to longer daylight. This also affected and favoured whale catches).

Appendix 8 shows the importance of the whaling revenue to the Falkland Islands at this time. It was yielding an average of £8550 per year equal to 25% of the Colonies ordinary revenue. The profit of £2.8 million for one

WHALES CAUGHT IN SOUTH GEORGIA AND SOUTH SHETLANDS

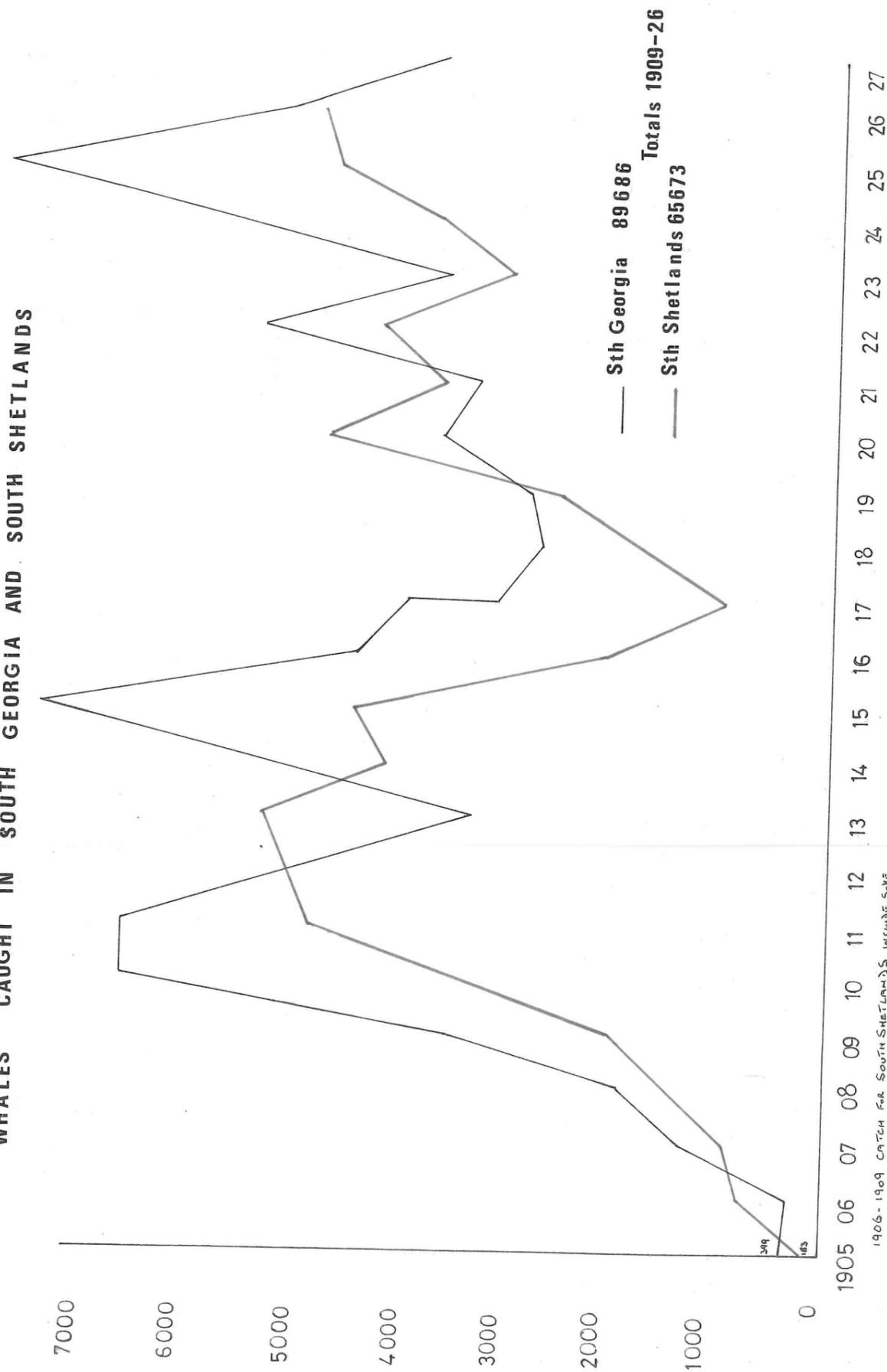


FIGURE 13

SOURCES: INTERNATIONAL WHALING STATISTICS, 1954, 1981. ALLARDYCE, W.L. 1906-1909 CATCH FOR SOUTH SHETLANDS INCLUDE WHALE CAUGHT AT FALKLAND ISLANDS, HINDEMAN STANT AND CONST OF CHILE. 1912-14 } SOUTH SHETLANDS CATCH HERE ONLY IN 1913-14 SEASON DID PRODUCTION OF OIL AT SOUTH SHETLANDS EXCEED Sth. GEORGIA. 1919-1921 } WHALES FROM Sth. GEORGIA. MAX CATCH, Sth. GEORGIA, 7,800. Sth. SHETLANDS, 5,200.

company between 1909-1937 shows the value of whaling (Figure 16). Larsen's company, Cia Argentina de Pesca from South Georgia returned a 75% bonus to investors in the first year (Bonner, N. personal communication).

The administration of the whaling industry from Deception Island

The situation at Whalers Bay can be gleaned from Plates Figures 10 and 11 . The floating factory ships were moored stern to shore and each ship had its own water well (Plate 31). In addition they maintained coal stocks on shore and often used special ships for transporting coal such as the SS *Telefon* which was wrecked off Admiralty Bay (Charcot, 1909). The catchers would hunt in the Bransfield Strait and then tow back the whales for flensing alongside the factory ships (Plate 26), a process that demanded sheltered water. As the processing plants were inefficient the wastage was enormous particularly when stocks were plentiful. In the 1912-13 season W Moyes, the Stipendiary Magistrate, reported 3,000 rotting carcasses in the harbour. Plate 29 shows abandoned whales lying beneath Cathedral Crags, whilst Plates 30A and 30B show the carnage on the beach at Whalers Bay.

Licences were issued from 1907. In May the Sociedad Ballenera de Magallanes of Punta Arenas was issued with one for the territorial waters of the South Shetlands. This act was later to have important consequences when Chile formally claimed this sector of Antarctica in 1940 (Chapter 5).

Ordinance No 3, 1906 (Great Britain, H.M.S.O. 1920) covered the licences to take whales and a royalty on each whale caught in colonial waters (£10 Right, 10s. a sperm and 5s. others). Ordinance No 5 in 1908 was aimed at limiting the extent to which the pursuit of whales could be carried on by controlling the licences of the catchers and to reduce the waste in processing by maintaining a reasonable balance between factory capacity and catching capacity. There was no attempt to control the numbers caught or the species but the whale calves and female whales were protected. Appendix 9 is a copy of the 1911 and 1912 whaling regulations for the South Shetlands and Graham Land areas.

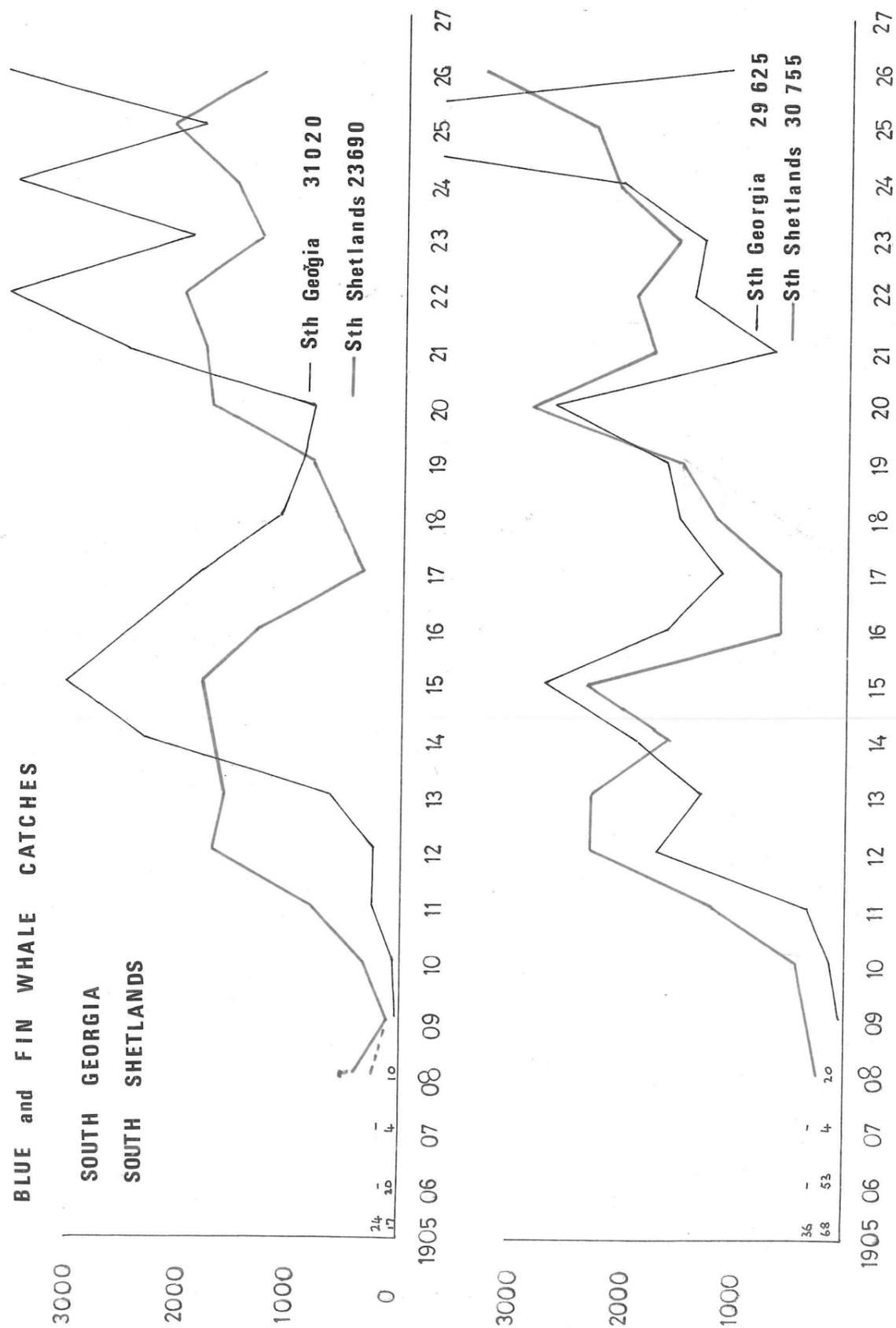


FIGURE 14
SOURCE: INTERNATIONAL WHALING STATISTICS
OSLO, 1931.

In November 1910 Einor Gleditsch was writing to Governor Allardyce requesting permission to erect a shore station at Deception Island so that the whale carcasses could be utilised. A similar, more detailed, request was submitted by Krogh Hansen, manager of the Hektor Whaling Company on the 1 April 1911. As a result of this pressure and to try to reduce the waste Governor Allardyce recommended in May 1911 that land at Deception Island be leased for a shore factory (See Appendix 11). The conditions of this lease clearly cover that of wastage and the full utilisation of the carcass. It includes the right to process those discarded by other factories which would be crown property. The lease was awarded on 21 October 1912 to the Hektor Whaling Company of Tonsberg (N Bugge, Managing Director) who were also requested to purchase a house in Norway suitable for accommodation of the Magistrate. Such a dwelling was to have an office, bedroom and sitting room and to be erected close to the factory (Letter No 211, 1912 13 May. Allardyce, 1902). A flagstaff, some 30 feet high, was also requested. This was in fact done by Hr Bugge for the estimate of £300. The first whales were hauled up the slipway on 24 December 1919 (Plate 27).

Stipendiary Magistrates had been appointed since the 1910-11 season (Appendix 12) but the 1912-13 season can be considered the start of full regulation of this whaling.

The Magistrate was also appointed as Coroner although the first person commemorated at the cemetery was whaler Nokort Davidsen in the 1906 or 1907 season (N Bugge, personal communication). A full list is shown in Appendix 13. This cemetery was by far the largest in the Antarctic and is a reflection of the importance of the island. Those recorded include whalers lost at sea.

On the 6 May, 1912 Port Foster was declared a Port of Entry. This meant that all ships had to report here for customs clearance before and after each whaling season. The lighthouse was maintained by men from the Hektor Whaling Company. The Post Office was also established in 1912 although the post-mark 'Port Foster' was not used until 6 March 1913. From 1913-1924 the post-mark was Deception Island, South Shetlands (SS2) and from 1924 to its closing in

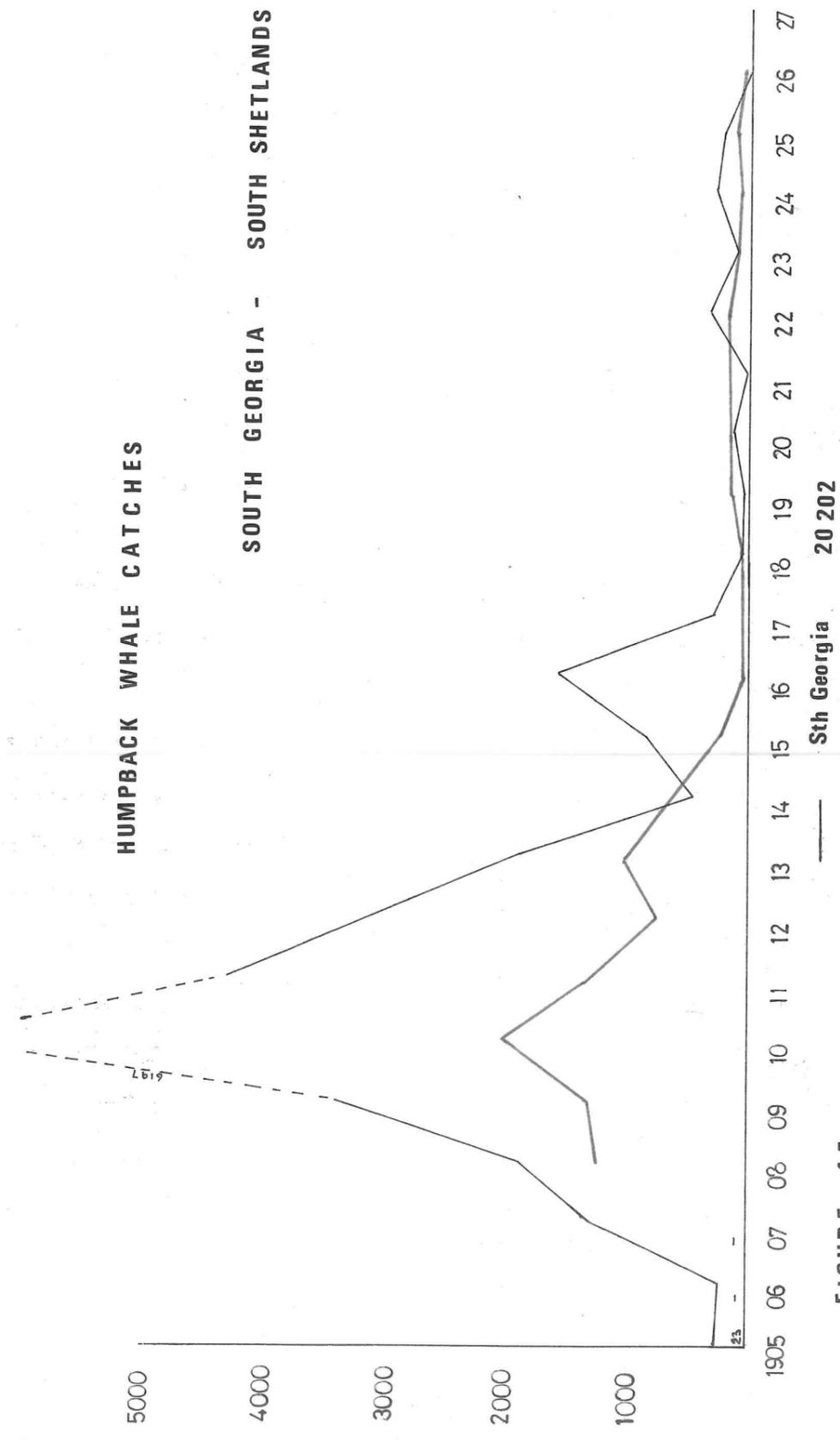


FIGURE 15

SOURCE: INTERNATIONAL WHALING STATISTICS OSLO, 1931

1931 it was South Shetlands (SS3) (Andrews, 1956).

Another administrative act associated with Deception Island was the issuing of radio licences in the 1912-13 season (Appendix 15). These were the first radio licences for the Antarctic. It is perhaps interesting to note that they predate the *Endurance* expedition by two years. One wonders what difference radio communications would have made to Shackleton and his men. Within a few weeks of their use the local Magistrate was reporting by radio to the Governor at Port Stanley the loss of the floating factory ship *Pisagua* (Appendix 15E).

Even with this administration the regulations to control whaling were not succeeding judging by the report of 3,000 carcasses lying around the harbour in 1912-13. Additional factory ships to process this waste were authorised but without any additional catchers although the whalers were always trying to get catchers down on false pretences.

A definite effort was made to conserve stocks and it seems likely that a reasonable sustainable yield crop could have been established but pelagic whaling killed this and Deception Island.

The demand for whale oil, due to its use for margarine and munitions, increased during the first world war years. Factory ships were lost due to the war: the *Hektor*, *Hvalen*, *Benguela*, *Capella*, *Falkland* and *SS Normanna* was torpedoed the *Roald Amundsen* was mined and the *Guvernören*, *Horatio* and *Restitution* lost through natural causes (Great Britain, 1920).

A result was a sudden increase in whale oil prices (Appendix 4) 1916, £32 per ton, 1917 £59 per ton. Demand led to invention. In 1922 Peter Sörlle patented the stern slipway and in 1925 the *Lancing* became the first pelagic factory ship to operate in the Antarctic. Figure 17 shows how catches dramatically rose after this date. The pelagic ships roamed close to the pack ice and this heralded the ending of the control of the shore stations. Deception Island was closed by the end of the 1931 season. One result was the overproduction of oil in 1930

£

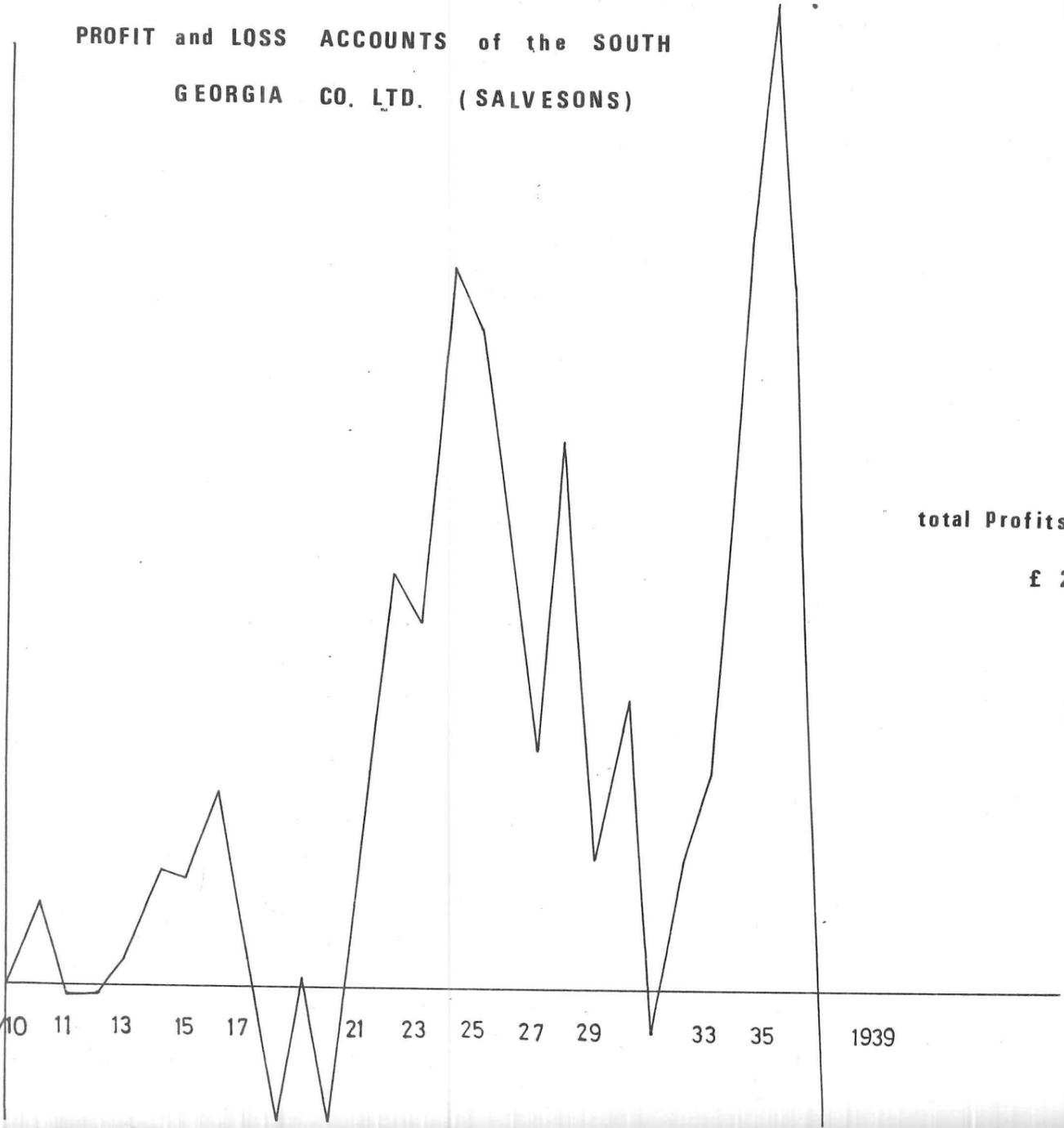
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0

**PROFIT and LOSS ACCOUNTS of the SOUTH
GEORGIA CO. LTD. (SALVESONS)**

1909/10 11 13 15 17 21 23 25 27 29 33 35 1939

total Profits 1909-1937 :
£ 2·8 m

FIGURE 16



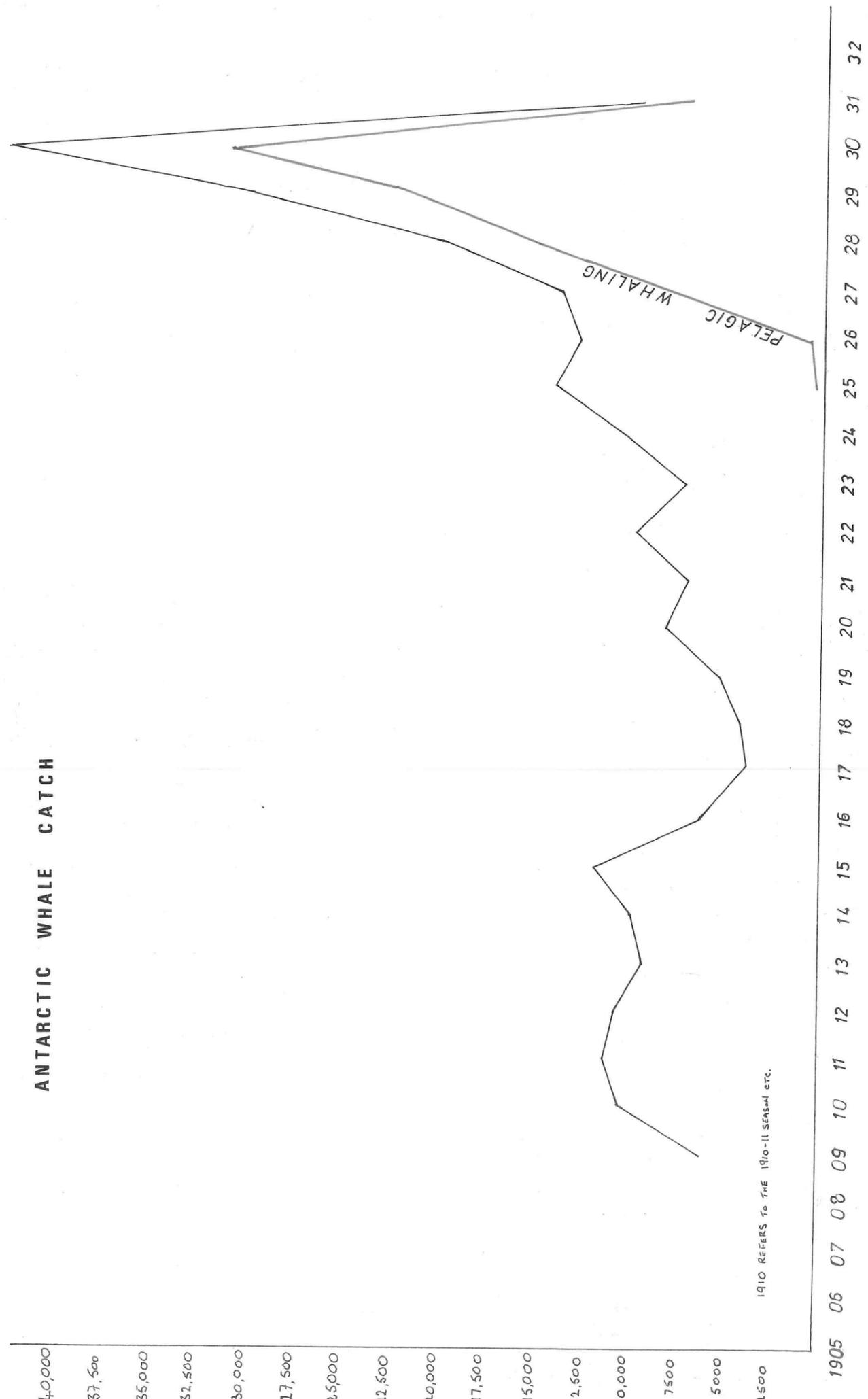


FIGURE 17
SOURCE: INTERNATIONAL WHALING STATISTICS.

onwards and the plummeting drop in oil prices (Appendix 4). Local regulations for conservation were useless; they had to be international and the first ones came in 1932.

A complementary factor which led to the decline of Deception Island was the fact that ships could produce their own fresh water by evaporation processes. Much later, in the 1950's, the factory ship *Balaena* was able to produce 850 tons per day. This meant that these pelagic ships became totally independent of land. Their umbilical cord to the shore stations had been broken.

As well as whale licences the Governor issued a mineral licence to Salvesens of Leith for the South Shetland Islands and Graham Land (Letter 102, dated 28 August, 1911. Allardyce, 1908).

The greatest and the most far reaching result of all this whaling activity was the issue of the Letters Patent in 1908 and 1917 to provide for the government of South Georgia and the other Dependencies of the Falkland Islands. Ordinance No 9, 1908 was issued to regulate the legal points of the 1908 instrument.

It can be seen that from 1905-1931 the whaling industry was centred and controlled by these two islands, South Georgia and Deception Island. Up until 1925 there were no known alternative places with the same degree of shelter or facilities. Expeditions such as those of Lars Christensen searched for new areas off places like Bouvetøya and Peter I øy. (At the former they even established a hut but it was washed away after one season.) Whaling only started in the Ross Sea in the 1923-24 season (Roberts, 1958) when possible bases were examined in the Bay of Whales, McMurdo Sound and Victoria Land.

Thus within the span of 25 years, Deception Island witnessed the rise and fall of the Antarctic's greatest commercial industry. It was at the centre, and many decisions made in relation to this island have had lasting effects on later developments.

CHAPTER 4

SCIENTIFIC AND EXPLORATORY 1898-1937

Antarctic affairs at the commencement of this period were dominated by the heroic land journeys of Scott, Shackleton, Amundsen and Mawson. The Antarctic peninsula region was dominated by the whaling. The first major land journeys on the Antarctic Peninsula were not made until those of the British Graham Land Expedition (1934-37). Deception Island again became a focal point for expeditions visiting the Antarctic Peninsula. The presence of the whalers and the land station were an added attraction.

There are two major expeditions in which Deception Island plays a prominent part. They are Charcot's *Pourquoi Pas?* 1908-10 and those of the Discovery Investigations from 1925 onwards. The island played a more minor role in the affairs of the voyages of the *Uruguay*, Cope's 1920-21 expedition, the voyages of the *Odd* 1926-27, the Norwegian Antarctic Expedition 1927-28 and the British Graham Land Expedition 1934-37. In 1928 Sir Arnold Hodson, Governor of the Falkland Islands, made the first visit to the island by a Governor.

Charcot used Deception Island as a base on three occasions and give some very descriptive accounts of the island and the whalers in the *Pourquoi Pas?* (1910). He appears to have had great affection for the whalers. This was probably due to their kindness, especially of Monsieur and Madam Andresen, manager of the Magellan Whaling Company on board the *Gobernades Borjes*, and the fact that they carried mail for his men. His three periods of visits were 22-25 December 1908, 27 November-23 December 1909 and from 31 December to 6 January 1910.

"I consider that the possibility of taking a fresh stock of coal at Deception Island was one of the principle causes of the success of the expedition."

On his first visit he was given 30 tons of coal and 100 tons on the second visit. In addition he watered his vessel from Pendulum Cove and direct from

the whale vessels. Fresh food was given to him and in November 1909 this was very welcome as Chollet was suffering from scurvy. The greatest help to Charcot was the loan of a diver to inspect the hull of the *Pourquoi Pas?* M. Mickelsen a Norwegian diver, spent three hours on the work and reported very serious damage to the bow, which accounted for the leak of 2 tons of water per hour. As a result Charcot made only a short journey to the north of the Peninsula before returning to Montevideo where major repairs were carried out.

Deception Island was a centre of his scientific work. Bongrain, carried out seismic observations; Rouch, meteorological recordings; Godfrey, soundings; Gourdon (1914) geological collections and Lioville and Gain zoological investigations. Medical help was given to the whalers and Charcot passed on information on suitable harbours. It was a very fruitful period of cooperation between commerce and science and Deception Island played a major role in the success of this French Expedition.

The reports of the Discovery investigations show how often Deception Island was used as their shelter and base as so much of their work was centred to the west of the South Shetland Islands and in the Bransfield Strait (Hardy 1967).

Nordenskjold could not enter Port Foster in 1902 due to ice blocking the entrance but the Argentine ship *Uruguay* anchored in Pendulum Cove in 1904 seeking a message from Charcot. This role of acting as a 'central place' was important throughout this period. It increased with the presence of the whalers and the possibility of coal and provisions. Deception Island was uppermost in Shackleton's mind when he broke clear of the Weddell Sea ice on 7 April 1916.

"But we know from the Admiralty Sailing Directions that there were stores for use of shipwrecked mariners on Deception Island."

Shackleton 1919 p. 119

Shackleton further discussed the possibility, when marooned on Elephant Island in April 1916, of moving to Deception Island and using the timber from the buildings to construct a boat or to await the return of the whaling community in the following November. Finally, Wild was instructed to make for Deception Island if Shackleton failed to turn up with a relief party (p.157).

The use of the timber from the whaling station becomes a recurring theme. In 1934-37 the British Graham Land Expedition used it for constructing a building and again it was used by the Falkland Island Dependencies Survey in 1948 on Argentine Islands.

The dogs of the BGLE were left at Deception Island for a month, the timber was used to build their second base on Debenham Island and mail was collected at the island having been left there by Lincoln Ellsworth. The workshops which were well equipped with metal lathes proved particularly useful to this Expedition.

The earlier Cope expedition (1920) had allowed Wilkins to examine the harbour which was later to be used for his pioneer flights. The exploratory voyage of the *Odd* in 1926-7 was aided by revictualling at Deception Island and important geological work was carried out by Høltedahl from Lars Christensen's, Norwegian Antarctic Expedition, although Høltedahl arrived by local whale boats and not in the *Norvegia* which was undergoing repairs at South Georgia.

Although whaling dominated the role of Deception Island during the period 1898-1937 the island did play a role in many other scientific ventures and it remained a focal point in this region. One of the greatest contributions of the island to Antarctic affairs commenced during this phase - Antarctic flying.

Antarctic Flying

The Antarctic presented many challenges to the pioneer aviators in the 1920's and it was to Deception Island that they first sought suitable runways and bases. Later it was to become the centre of British flying under the Falkland Island Dependencies Survey and the British Antarctic Survey to supply and aid, exploration on the Antarctic Peninsula and southwards to Marguerite Bay and King George VI Sound. For example in 1949 it was the base for the *Norseman* and *Auster* involved in the relief of Stonnington Island and in 1956-7 the highly successful Falkland Island Dependencies Aerial Survey used it as the base for their *Canso* flying boats and processing operations.

It was equally important to the Argentine flying programme and to a lesser extent to Chile, whose base was manned by Chilean Air Force personnel. Its air radio beacons have been regularly used to guide inter-continental flights from the South American mainland to the Antarctic. The first tourist/commercial flight from Punta Arenas on 23 December 1957 flew over the island.

These events were restricted to the smaller type of aircraft due to the limitation of the island and the type of demand and use required in this region at this time. The flying was never comparable to the United States operations from New Zealand to McMurdo Sound.

Hubert Wilkins was planning the first Antarctic flight in 1928. To see this event in perspective it is interesting to note that the first flight of the English Channel was in 1909, the Atlantic was crossed in 1919 from Newfoundland to Ireland by Alcock and Brown and the first solo Atlantic flight was in 1927 by Lindberg. These were pioneer days as can be seen from Plates 36 to 38.

Wilkins had planned to fly in the Antarctic as early as 1919 and had acquired aircraft from the RAF Disposal Board. Support did not materialise, but it was as a member of Cope's British Imperial Expedition that he first saw Deception Island in December 1919. After abandoning the Expedition Wilkins later joined Shackleton in the *Quest* but his aircraft was left at Cape Town and never reached the Antarctic. Wilkins was however convinced aircraft could be successfully used in the summer. His 1928-29 Expedition was supported by the American Geographical Society and in particular by William Randolph Hearst, a US newspaper publisher (Wilkins, 1929,1930).

The planes were transported down to Montevideo by the Manson line and then N. Bugge Manager of the Hektor Whaling Company allowed them to be carried on SS *Hektor* to Deception Island. Wilkins plan was to use the bay ice in Port Foster as his runway and to fly both planes 500-600 miles down the Peninsula. They were then to land, transfer fuel and one aircraft was to complete the flight to the Ross Sea via the coast.

In reality this was never accomplished. The sea ice was unsound in Port Foster when they arrived on 6 November and instead they made the first Antarctic flight on 16 November from wheels on a small ash runway. A later flight showed them that there were no alternative land or snow runways in the South Shetland Islands. An attempt to land on the bay ice ended in near disaster when the ice broke and the plane fell through but 20 whalers came to their rescue and no harm resulted. The main flight took place on 20 December. By then a runway of 2500 ft had been constructed "with hands, wheel barrows, buckets, rakes and shovels" (Wilkins 1929) but it was only 40 ft wide and had two 20° bends. The aircraft could hardly get airborne with full payloads (Plate 38). His main flight of 10 hours duration is shown in plate 37. The observations made were highly inaccurate but this flight did inaugurate Antarctic flying. It was really a remarkable feat as the take-off was on wheels and there was no possibility of an emergency landing and subsequent take-off. The planes used were two Lockheed Vega monoplanes with Wright whirlwind engines and cruised at 125-130 mph ground speed.

Wilkins also inaugurated the first seaplane flight from Deception Island but the vast flocks of Cape Pigeons presented major problems. Many were hit and killed but no damage was done to the aircraft. His second expedition in 1929 was again transported to Deception by the Hektor Whaling Company in the SS *Melville* and throughout these two expeditions Wilkins received much help from the whalers and in particular from Sverre Nielsen, the manager of Deception Island. During the winter the two aircraft had been stored in the open with the wings under cover. They were undamaged and the runway was enlarged in the 1928-30 season with the help of the Clectrac tractor and Austin 7 (Plate 38) (surely the first in the Antarctic?). Port Foster was again unsuitable for take-off and although flights were made from the new ash runway the main fields of operation were further south using the RRS *William Scoresby* as the base, and the aircraft as seaplanes (Wilkins 1930).

On his way through the Falkland Islands the Governor had given his authority to Wilkins to claim lands and territories for the British Empire. A great deal of new land was seen but fundamentally this was a pioneering episode which proved that aircraft would be of immense use to Antarctic exploration. Deception Island was the focal point for these early operations.

Ellsworth

After his abortive expedition to the Ross Sea in 1934, Lincoln Ellsworth was promoting a second Antarctic flying expedition. An article was headed:

"To Antarctica Again. In order to fly across the South Polar Continent from Deception Island to Ross Sea."

Ellsworth (1934)

He would have preferred to have used a base from the Weddell Sea but access was thought to be impossible and Deception Island was known to possess advantages. His ship the *Wyatt Earp* was to sail after the flight from Deception Island to the Ross Sea. In reality, Lincoln Ellsworth arrived at Deception Island on 14 October 1934. Winter conditions prevailed and it took a week to get the *Wyatt Earp* through the ice closed harbour to unload the plane (Ellsworth 1935). It took a week to unload and a further week to assemble. Unfortunately a connecting rod on the aircraft broke on 29 October. The *Wyatt Earp* then sailed to Chile for a replacement returning on 16 November and the aircraft was repaired by the 27th. By then no snow was left on the runway. Ellsworth was forced to seek other sites and eventually arrived at Snow Hill Island in the Weddell Sea. His bad luck continued here with less than 12 hours continuous cloudless days in 2 months of waiting. The weather had once again defeated Ellsworth and after extracting himself from the Weddell Sea ice the *Wyatt Earp* returned to Deception Island on 20 January 1935 where his aircraft the "Polar Star" was dismantled for the journey back to America. For his final, successful expedition, Ellsworth again used the shelter of Deception Island to assemble his plane the "Polar Star". This was on the 28 October 1935. He then moved to Dundee Island for the successful flight to the Bay of Whales (Bertrand 1971, Ellsworth 1936).

Falkland Island Dependencies Survey - British Antarctic Survey

Flights of the British Graham Land Expedition did not affect Deception Island but the sheltered anchorage was used again in 1949 for the assembly of aircraft. This time to try and rescue a group of marooned men at Stonnington Island in Marguerite Bay.

"A Norseman plane designed to take off from skis or floats, is being built in Canada. It will be supported by an Auster plane or floats and both will be ready to set off from Deception Island or further south as required."

Miles Clifford, Governor of
the Falkland Islands

This episode was supported by the RFA *Gold Ranger* which brought down aviation fuel. The successful flights were finally made from the Argentine Islands and then the planes returned to Deception Island.

A much more important role for flying from the island occurred in 1955-57 when a private company, Hunting Aero Surveys Ltd were awarded the contract to photograph 42,000 square miles of territory, to provide ground control for survey purposes and to provide some airborne magnetic observations. Deception Island was chosen as the base (Mott, 1958, Gavin-Robinson, 1957).

"Port Foster is usually ice free and proves the safest natural anchorage in the whole of Antarctica."

P G Mott, Leader (1958).

"No landing strips were available in either the Falkland Islands or Antarctica, but two suitable areas of sheltered water existed, one being the inner harbour at Port Stanley, and the other the remarkable crater harbour at Deception Island which was ice free during the summer months and was centrally placed for operations over the whole of the Antarctic survey area."

Captain C C Gavin Robinson (1957)

This led to the choice of two PBV-5A Canso aircraft which could beach themselves on their own wheels and power. The *Olaf Sven* acted as the supply ship and at their Base Hut they did their own processing of film. The availability of fresh water to supply a 500 gallon tank was essential. 33 men were involved in the 1955-6 season and 31 in the following summer. The expedition clearly showed that the most favourable weather is in December and as their first year's flying did not commence until early February little was achieved. The second

year was in contrast, highly successful.

	Days suitable for air photography	
	1955-6	1956-7
December	12	12
January	5	6
February	7	3

85% of effective photography was completed during the long daylight hours before 20 January. Searches were made throughout the Antarctic Peninsula and surrounding islands for alternative bases for the seaplanes but nothing suitable was found by sea or air (Mott, 1958). The success of this expedition owed a lot to the facilities available at Whalers Bay.

In 1960 Deception Island was again filling the role as an airbase. In 1959-60 season it had been intended to set up an air facility at Stonnington Island but this was thwarted by ice. Instead the Beaver and DH single engined Otter of the Falkland Island Dependencies Survey were operated from Deception Island using a wheel/ski undercarriage which allowed a take-off from a land runway and a landing on ice (Plate 40). The Beaver was lost through the sea ice off Argentine Island in 1960 and later replaced with another DH Otter. The aircraft were assembled on the beach (Plate 39) and test flown off the same runway that Wilkins had constructed in 1928. This was widened with the use of a tractor but still possessed bad bends. A smaller cross runway was also built in 1961. The runway was never sufficiently long so that take-offs with full loads were always hazardous. Between 1961 and 1963 a large hangar was erected (Plate 41) which held two DH singled engined Otters. Previously the aircraft had been wintered outside with their ailerons and rudders removed. The main functions of the air unit were to supply and support sledging parties working from Hope Bay, Marguerite Bay and King George VI Sound; to provide ice information for shipping and to be used for radio-echo sounding of the ice masses. The Hope Bay work in the northern Peninsula area was completed in September and October, the

southern work from November onwards. This system operated until the air facility at Deception Island was closed in 1967 and the aircraft were then flown back at the end of each season to Canada. The facilities have remained unused since that date.

The Argentine Base, Bahia Primero de Mayo, was equipped with an amphibian ramp across the ash beach and could handle PBV Catalinas. It also possessed an aviation building 100 x 50 ft with workshop. The following list gives an idea of the use of the harbour for flying to the Argentinians:

1948	Walrus flying boats operating
1950-1	Several aircraft used
1951-2	2 Grumman Goose for ice reconnaissance and air photography
1952-3	2 Grumman Goose, 1 Sikorsky S-55
1953-4	Catalina PBV, 2 Sikorsky S-55
1954-5	Aircraft at Deception Island
1955-6	2 Catalinas PBV

Later use of PBM aircraft

(US Antarctic Projects Officer,
1961).

Argentine aircraft flew to Deception Island at different times of the year to drop mail and to use it as a check point for flights between Argentina and the Antarctic mainland. An unusual use of this facility occurred in 1964 when on 10 September a Neptune and Albatross aircraft dropped newspapers dated 9 September which contained accounts of the United Nations debate on the Falkland Islands. Three other flights to the island took place that month. Nationalistic feelings appearing again!

Chile operated flying boats from Pendulum Cove and on 5 January 1964 an aircraft landed with the Chilean Defence Minister. On the 26 September 1964 a United States aircraft used the Chilean air beacon as a navigation homing aid. Before the Chilean Base was established the New York Times reported that the Chilean Air Force was planning to build an airfield at "Foster Bay" on Deception Island with the idea of eventually establishing a direct air line across the South Pole from Chile to Australia for passengers and cargo! (New York Times, February 1953). It was from the Chabunco airport near Punta Arenas that the

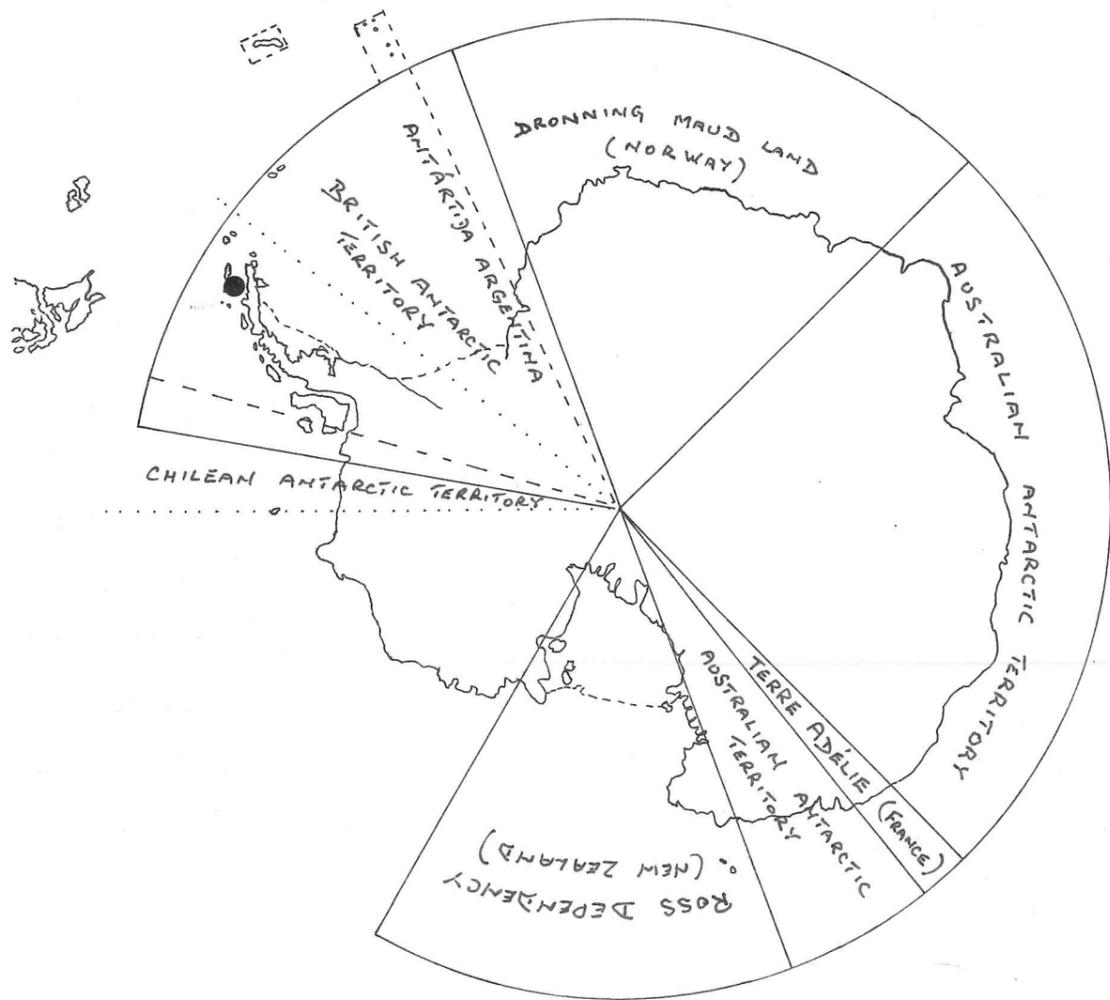
first commercial/tourist flight took off with 72 passengers and crew (Anon, 1957). They flew over Deception Island and south below the Antarctic circle.

Air operations since the first flight in 1928 have been an important feature of Deception Island and this role must rank as one of its most important contributions to Antarctic affairs. It is suggested in Chapter 8 that a similar role for the use of the island could occur in the future.

During these 39 years the sheltered anchorage of Port Foster attracted a major whaling industry and it continued to be the focal point for the majority of expeditions to the mainland. It was the shelter of this harbour that first attracted Hubert Wilkins although the first Antarctic flight was from the ash surface. The harbour was used a great deal by seaplanes from all three countries. The presence of freely available fresh water was still of vital importance.

THE ANTARCTIC

TERRITORIAL CLAIMS



0 500 1000
SEA MILES

--- ANTÁRTICA ARGENTINA BOUNDARY 25°W-74°W
 ANTÁRTICA CHILENA BOUNDARY 55°W-90°W
 ——— BRITISH ANTARCTIC TERRITORY 20°W-80°W

FIGURE 7

CHAPTER 5

POLITICAL AWARENESS

There is probably no island in the world the size of Deception Island, 12 km x 13 km, which is claimed by three nations and on which each country has established a permanent base (Figure 4). It suggests an importance out of all proportion to its size. Equally remarkable is that for 12 years (1955-1967) these three bases have lived in perfect harmony amongst themselves whilst international disputes over the island and surrounding territory have been waged above their heads by the politicians. Why should Deception Island have acquired such a political significance by the 1940's?

Three nations are involved in the territorial claims of this sector of Antarctica, Argentina, Chile and Great Britain (Figure 7).

Great Britain's case has been able expressed by Waldock (1948) and rests essentially on the basis of discovery, the official publication of claims and active administration from the whaling era, 1906 onwards. The Letters Patent issued on the 21 July 1908 followed earlier published claims on the 23 June 1843, 28 April 1876, 25 February 1892. The acts of William Smith, Edward Bransfield and Captain Foster in relation to claims which were studied in Chapter 2 become of importance at this point. Governor Allardyce issued the 1908 Letters Patent, amended 1917, so that all previous claims could be consolidated and to provide a framework for the administration of the whaling which was rapidly growing (Chapter 3). It was not unusual for a Colony to add a Dependency at this time. As it has been shown South Georgia and Deception Island were the two whaling centres and to them official administration gravitated. The involvement of the Chilean Whaling Company, Sociedad Ballenara de Magallanes is important. The Chileans maintain that this company was given the authority to operate off the islands of Diego Ramirez and San Ildefonso and the South Shetland Islands

through concessions from the Governor at Punta Arenas in 1902 and that the company was operating from Deception Island in 1906. However in 1907 this Chilean company accepted and paid for a licence issued through the Governor of the Falkland Islands and continued to do so until they ceased operating. This would seem to indicate recognition of British sovereignty and administration. An odd result of this incident is that a site of coal left by the Magellan company at Deception Island is often cited in discussions on territorial claims as representing a de facto presence. (It was the manager of this company, M Andresen who befriended Charcot with coal in 1909). Chile did not publish a formal claim until the Supreme Degree No 1747 was issued by President Aguirre Cerda on 6 November 1940.

Following the British Graham Land Expedition (1934-7) it appears there was only one British visit, that of the RRS *Discovery*, to Deception Island before the *Queen of Bermuda* in 1942 (Plate 33). This armed merchant cruiser had primarily been sent to the Antarctic to protect the whaling fleet after the serious losses to allied shipping (Jones, 1974). The German ship *Pinguin*, a surface raider, and the *Komit* had been both active and successful in this Antarctic theatre of war. The *Pinguin* had virtually captured a complete Norwegian whaling fleet with 22,500 tons of whale oil (Blyth, 1952). This ship accounted for 136,550 tons of allied shipping. In 1940 the seven fuel tanks belonging to the Hektor Whaling Company were reported to contain 1500 to 7000 tons of fuel oil (Roberts, personal communication) and so on the 5 March 1941 the *Queen of Bermuda* sailed through Neptunes Bellows. She must be the largest ship ever to have entered Port Foster. She had a complement of 450 men on board. Her task was to check that the island was not being used as a base and to destroy anything of value. She only ~~stayed~~ stayed a couple of hours and set fire to a heap of coal, blew up the supply and discharge pipes on the oil tanks and punctured them. All buildings were left untouched.

It was in the following season, 1943, that HMS *Carnarvon Castle* called and discovered the formal claims of Argentina to the island and a sector of Antarctica. Deception Island was thus at the centre of political affairs.

These Argentine claims were the first which specified a particular sector. Her claims were based on the idea of inheritance from Spain, on geographical proximity and on a sector principle extending from her lands. The operation of the meteorological base on Laurie Island, South Orkneys, since 1904, was the basis of the claim on administration. (This base was handed over to Argentina by Bruce of the Scottish National Antarctic Expedition, 1902-4). It was in 1942 that the Argentine ship *Primero de Mayo* visited Deception Island and there published possession of the sector 25°W to $68^{\circ} 34'\text{W}$, south of lat. 60°S (extended to 74°W in 1946). The sector principle had been used by Governor Allardyce in 1908 (Figure 7). It was the reverse to the sector method in the Arctic which led from the land to the sea and commenced with the meridian between Canada and Alaska in 1867. This was shown as extending towards the North Pole.

This sudden interest in this sector of the Antarctic stems from a number of factors. The British claim was closely involved with the Falkland Islands, as the Dependencies were a Colony of the Falklands sharing the same Governor. As Argentina had disputed the sovereignty of the Falkland Islands it was natural for this dispute to extend to the Dependencies. The 1940's, with Great Britain at war, gave Argentina the opportunity to express her aspirations to the Antarctic.

A rather deeper reason can be found in the stage of development of these South American countries by this period. Both were still young, having gained their independence in the early 19th Century, Argentina 1816, Chile 1818. Antarctica presented the challenge of the frontier zone in the same way as it had done to the United States in the mid 1800's. It is often stated that politicians from those countries have focussed attention on their Antarctic claims when their own domestic political situation is in jeopardy. This may be true but only time can judge. It must be remembered the South Americans do exhibit strong national feelings to their homeland and the Inter-American Treaty of reciprocal assistance signed in Rio de Janeiro in 1947 creating an American defence zone between long. 24°W and 90°W , plus the Bogota Charter of the Organization of American States in 1948 express this on a continental scale (Hayton, 1956).

Alot of this feeling became focussed on Deception Island as it was at this time thought of great strategic value. This was particularly in relation to the control of the Drake Passage. Its harbour, its land airstrip and its situation close to the mainland were the key factors. It was also thought that the area would contain rich economic resources and 'he who controlled Deception Island controlled the whole region.'

The British response to this new political situation in the Antarctic was the establishment of bases under a secret wartime operation called 'Operation Tabarin'. The aim was to reassert a British presence in the Dependencies. Scientific work developed as the secondary function. The first base was Base B, at Deception Island. The secrecy attached to the operation can be judged by the fact that no polar clothing was issued to the members until after they left Port Stanley in the Falkland Islands! The first action on landing at Whalers Bay was to erase the evidence of Argentine claims (Appendix 17A and 17B). and at 4.30 on 3 February 1944 the British flag was broken. In the words of the first Base Leader, W R Flett "This simple but significant act of allegiance was royally acclaimed by all those assisting at the ceremony." Plates 33-35 show aspects of Operation Tabarin including the entry of *Carnarvon Castle* through Neptunes Bellows. SS *Eagle* is refuelling from a barge which was towed 800 miles from Port Stanley with two years supply of fuel oil.

For four winters the British base was the only permanent habitation and it served as a meteorological station and transit point. On average there were only 4 members wintering (Appendix 21).

There are certain incidents which occurred at Deception Island which are of importance and interest to this period of Antarctic affairs. They commence with the erection of the Argentine Base, 'Primero de Mayo' (named after their ship which visited in 1942) in December 1947. The protest notes which are shown in the appendix give the political atmosphere at this time. Protests were delivered by the British Magistrate to all foreign visiting ships who had

not obtained customs clearance. Appendix 18A,18B,18C,18D. As none obtained such clearance all in theory were illegal. In reality many came and went without receiving such notes as the Magistrate only possessed a small boat and outboard engine! As material was being removed by these ships from the old whaling station and from the beach, the Governor, Miles Clifford issued the Harbour Regulations of 1948 (Appendix 18G). The Magistrate acted as Harbour master. These regulations covered the control of water from the wells. They were virtually never enforceable except by token protest notes (Appendix 18E). Eventually both Argentina and Chile returned their own protest notes in exchange and then life continued in the same way. Usually generous hospitality was extended by the ships and bases to these official representatives with parties and dinners accompanying their visits. When the Argentine Base was established exchange letters took place between the British Ambassador in Buenos Aires and the Argentine authorities setting out their basis for their claims to the island (*Polar Record*, 1948).

Deception Island had become a centre of attraction. At this time headings appeared in the Times 'Argentine and Antarctic warships depart for exercises' and the Chilean President, Dr Gonzalez Videla was making patriotic speeches from their new base on Greenwich Island declaring it belonged to the 'American Continent'. Similar speeches were made from Deception by the Argentinians (Times, 1948). Christopher Mayhew in the House of Commons was proposing to refer the dispute to the International Court at the Hague (Hansard, 1948) (See also *Polar Record*, 1956).

Fortunately a mutually agreed truce restricted the sending of warships south of 60° in 1948 but an 'incident' was bound to develop.

Locally the relationships remained harmonious and two events from Deception Island are relevant. On the 5 February 1952 Captain De Navio Fernando the Chilean task Commander led a party from the *Angamos* to a memorial service to His late Majesty King George VI. This was conducted by the Chilean padre (see plate 13). Before this in 1948 the British Base received a letter from

the officers of the Argentine minesweeper *Bouchard* which had been involved in protest exchanges.

'Your friends, the officers of the minesweeper *Bouchard* please very much to congratulate you and your companies with sake the marriage of your Princess Elizabeth succeeded the day before yesterday we have remembered it in sailing with our best wishes for that wedding, for you and your country.'

Incidents did soon happen. The most serious was at Hope Bay in 1951, the other at Deception Island. The beginnings of this were in 1948 when a Cdr. Hermelo visited the airstrip at Base B accompanied by the Base Leader, J R Huckle. He expressed interest in the runway as an emergency site for their land planes from Argentina. They erected survey posts and informed the base they needed an airstrip 1½ km x 80 metres (Falkland Island Dependencies Survey).

In 1953 the well publicized incident occurred when both Argentina and Chile built refuges on this airstrip. The Acting Governor of the Falkland Island Dependencies, Mr Colin Cambell, accompanied by two constables and 15 Royal Marines, on 15 February dismantled the buildings and arrested two Argentinians. The Chilean hut was not occupied. The two men arrested as 'illiegal immigrants' were taken to South Georgia and handed over on the 18 February to the Master of an Argentine vessel proceeding to Buenos Aires. This led to a flurry of protests at Government level and Mr Eden in the House of Commons repeated the British offer of submitting the dispute to the International Court at the Hague. (Antarctic, 1954). Locally it brought to the area HMS *Snipe* and HMS *Bigbury Bay* which remained on patrol until mid April with a Royal Marine detachment on the Base for 3 months in 1953 and 4 months in the 1953-4 season. It is interesting to note that it also led to the first international soccer match on the ash at Whalers Bay when HMS *Snipe* defeated the team from the Argentinian ship *Seaver* 1.0 (Polar Record, 1953). International football matches have since been a feature of life at Deception Island.

The other incident concerned the trial and conviction of a sailor from

HMS *Bigbury Bay* for an offence of the Wild Life Ordinances (See Appendix 19A and 19B for full details). This is thought to be the only civil law case in Antarctic history.

On 18 February 1955 a Chilean Base, President Aguirre Cerda (PAC) was established at Pendulum Cove and manned by the Chilean Air Force (Argentine Base by Army personnel). No further dramatic incidents occurred after 1953 on the political stage and 'protest notes' ceased to be exchanged after the mid 50's. At one stage two Buenos Aires Senators tried to reintroduce a bill in the Argentine parliament to declare Deception Island as their 'Capital' of Antarctica but this was not passed.

Deception was of vital importance for the operation of seaplanes to all three nations (Chapter 4) and it resumed its role as a shelter and transit point for the region. The meteorological stations were constantly maintained by all three bases throughout their history.

The British used it as their radio control centre from 1951 to 1955 and as an ionospheric station in 1951. All three bases maintained post offices and other signs of official administration (Plates 12). Appendix 20 gives a list of visitors to the British Base, including that of HRH Prince Phillip on 3 January 1957 and this reinforces the evidence to show the central role of the island.

It is suggested that this role as a meeting place of three nations in dispute was of paramount importance. Local relationships were excellent. Parties and dinners were held at each Base, holidays were spent at other bases, messages and mail were despatched for local members, medical assistance was given when ever needed, food exchanged and technical data exchanged or obtained such as ice reports. This was particularly true after the mid 50's. It seems the action of a zealous Base Commander caused the ugly incidents at Hope Bay, the same could have occurred at Deception Island.

In a period of 21 years Deception Island served in many roles but by the late 1950's she was ready for the more fruitful period associated with the International Geophysical Year and the Antarctic Treaty.

CHAPTER 6INTERNATIONAL HARMONY 1957-1967

The greatest contribution that Deception Island made in this period was to remain politically quiet after the turbulent times of the previous decade.

Two major events occurred in Antarctic affairs: The International Geophysical Year in 1957 and the signing of the Antarctic Treaty in 1959 which came into force in June 1961. Both depended on the cooperation of participating nations. A major 'incident' at Deception Island could have caused serious damage to these international ventures.

The bases on Deception Island all contributed to the scientific programme of the IGY. Meteorological work was the chief function but the central position of the island in relationship to other bases gave it an important logistic role. Locally, harmony and cooperation continued. For example His Royal Highness Prince Phillip extended an invitation to the members of the foreign bases to go on board *HM Royal Yacht Britannia*. It was just before this visit that the whale catcher *Southern Hunter* was wrecked on the rocks at Entrance Point. She still stands as a symbol to the days of whaling and marks the cessation of a period of political disharmony.

The transit and storage role continued for the island. In the 1959-60 season ice prevented access to Marguerite Bay so all the stores for the base at Stonnington Island were left in the whaling tanks. This was when the air facility was established on the ash runway and used it as the wintering headquarters until the eruptions of 1967 (Chapter 4).

The 1961-62 season is an example of the role Deception Island played at this time. There were 15 separate British shipping movements to the island including the landing and assembly of a DH Otter aircraft. All shipping from the Argentine and Chilean operations visited Whalers Bay and the majority took on water from

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"Biscoe Well". For example the Argentine ship *Punta Niafas* took on 650 tons of water between 23 and 31 December. Boxing Day witnessed another international soccer match. At the end of the season on 22 April the schooner *Vema* sheltered for 24 hours. She was carrying out oceanographic work for Lamont Observatory and the University of Columbia. Air operations included depot laying flights to Cape Longing and Pedersen Numatak, to support the survey work from the Hope Bay base. These were at the end of the season in March and April, and recommenced at the end of September before the aircraft flew to Marguerite Bay to support the work in this southern region.

An unusual international scientific experiment took place on the island in December 1960 when wires were laid across the island from Telefon Bay to the outer coast to use the horseshoe shaped island as a giant transmitter to investigate 'whistlers'. Very low-wavelength signals were transmitted and it was aimed to receive these at Annapolis, Maryland in the United States. Professor M G Morgan from Dartmouth College in the United States was in charge but the experiment was not a success. It does show how international cooperation extended beyond the IGY.

Political harmony was temporarily marred in early March 1961 when President Frondizi arrived secretly at the Argentine Base, Primero de Mayo. He made a nationalistic speech on the radio to the Argentine people.

.....'This affirmation of sovereignty is fundamentally the reason for my presence in this region which incorporates the spiritual and material patrimony of the Argentinians..... our courageous fellow countrymen: We are witness of your sacrifice to affirm our sovereignty to the Argentinian Antarctic.....'

(Ercilla, 1961)

This speech led to heated diplomatic exchanges between Chile and Argentina and to a lesser extent from Great Britain. It would seem President Frondizi was poorly advised on Antarctic affairs as his countries delegates had signed the Antarctic Treaty in 1959. Under this Treaty all territorial land claims were frozen and no new ones were to be made (Article IV). Three months after this, the Treaty had been ratified and came into force. If this speech had been made

either earlier, or after June 1961, it could have had serious consequences on the political harmony in Antarctica. Deception Island once again became the centre of attraction for political affairs. In contrast to this unfortunate speech the local bases celebrated the Treaty coming into force with a dinner and party.

Between 1962 and 1967 a new role developed. This was as a base for shipping from many nations and concerned with a widening range of functions. Ships that visited Port Foster were from the United States (1960 onwards) and a Russian fishing research vessel, the *Orechoyo* in 1965. A notable development was the arrival of tourist ships. In January 1966 Eric Lindblad arrived on the *Lapataia* and returned in January 1967. This was the beginning of his later cruises in the *Lindblad Explorer* which have included Deception Island on their tours. The Chilean ship *Navorimo* brought tourists in 1968. Shipping arrivals also included the "adventure yachts" such as H W Tilmans' *Mischief* in 1967, the *Awahnee* with Captain Robert Griffiths in February 1971 and a fleeting visit to the outer coast by David Lewis in *Ice Bird* on Christmas eve, 1973.

This new role mirrors the changes that were taking place in this sector of Antarctica after 1962. It was becoming "internationalised", and no longer the prerogative of the three claimant nations.

The period ends in a dramatic way appropriate to the history of the island. During the 1967 winter earth tremors became frequent with 341 recorded in one month. Suddenly at 22.54 on 4 December a cloud was seen and ash started to fall at 23.05 with visibility reduced to 25 metres. A radio call for help was made and at 01.39 a message was received with the news that the Chilean Base had been evacuated and all members were on their way to the British Base across Mount Pond glacier. At 01.50 the water in Whalers Bay was falling and rising 1.5 m over a 30 second to 2 minute time interval and at 02.49 the Chilean party arrived safe at 'Biscoe House'. It was heard at 04.23 that the Argentinians were safe and finally at 12.50 on the 5 December 1967 all men were evacuated by the Chilean ship *Pilato Pardo*.

This mutual assistance of the nations involved in claims to this small island is a fitting climax to the period of international harmony. 1967 marks

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Between 1962 and 1967 a new role developed. This was as a base for shipping from many nations and concerned with a widening range of functions. Ships that visited Port Foster were from the United States (1960 onwards) and a Russian fishing research vessel, the *Orechoyo* in 1965. A notable development was the arrival of tourist ships. In January 1966 Eric Lindblad arrived on the *Lapataia* and returned in January 1967. This was the beginning of his later cruises in the *Lindblad Explorer* which have included Deception Island on their tours. The Chilean ship *Navorimo* brought tourists in 1968. Shipping arrivals also included the "adventure yachts" such as H W Tilmans' *Mischief* in 1967, the *Awahnee* with Captain Robert Griffiths in February 1971 and a fleeting visit to the outer coast by David Lewis in *Ice Bird* on Christmas eve, 1973.

This new role mirrors the changes that were taking place in this sector of Antarctica after 1962. It was becoming "internationalised", and no longer the prerogative of the three claimant nations.

The period ends in a dramatic way appropriate to the history of the island. During the 1967 winter earth tremors became frequent with 341 recorded in one month. Suddenly at 22.54 on 4 December a cloud was seen and ash started to fall at 23.05 with visibility reduced to 25 metres. A radio call for help was made and at 01.39 a message was received with the news that the Chilean Base had been evacuated and all members were on their way to the British Base across Mount Pond glacier. At 01.50 the water in Whalers Bay was falling and rising 1.5 m over a 30 second to 2 minute time interval and at 02.49 the Chilean party arrived safe at 'Biscoe House'. It was heard at 04.23 that the Argentinians were safe and finally at 12.50 on the 5 December 1967 all men were evacuated by the Chilean ship *Pilato Pardo*.

This mutual assistance of the nations involved in claims to this small island is a fitting climax to the period of international harmony. 1967 marks

the end of permanent habitation; the island has since been used only for specialised scientific studies in the summer. The 1969 eruption totally destroyed the Chilean Base at Pendulum Cove and badly damaged the British Base, the Argentine Base remained untouched.

CHAPTER 7

VOLCANIC DEVELOPMENTS

A letter from Governor Allardyce written in 1912 predicted a cataclysm at Deception Island and the blocking of Neptunes Bellows (Appendix 2). Such a cataclysm occurred in 1967 with later major eruptions in 1969 and 1970 but fortunately the entrance to Port Foster remained open.

The first account of the island by Robert Fildes in 1820 described the volcanic character:

'At the head of the cove is a large circular basin which we supposed to be the mouth of a crater..... All about the hills on the east side of this place quantities of pumice stone and rubbish like broken burnt bricks lay scattered..... there is abundance of very fine dust..... and about SSW of the Cove are hot springs, the water of which when cold has a strong mineral taste..... there can be no doubt of its volcanic nature.'

(Fildes, 1820)

The chart connected with these remarks was the first to be drawn of the island in 1820 (Figure 9). This can be compared with the map of Kendall's of 1829 (Plate 22). Between these dates the northern 'double cove' shown on Fildes chart had disappeared. Webster (1834) records that the *Chanticleer* expedition found the remains of sealing activities in this area and there can be little doubt that this was the cove that sheltered the Stonnington fleet. Both Pendulum Cove and the one north of the present day Kroner Lake seem very different and an eruption probably occurred between 1820 and 1829. Other differences between these charts is that Fildes records 180 fathoms for the centre of Port Foster compared with 97 fathoms on the Kendall map. At the entrance Fildes records a minimum of $3\frac{1}{2}$ fathoms, Kendall 12 fathoms which is similar to the present. Are these surveying errors or accounted for by volcanic disturbances? The latter seems unlikely as Fildes was a careful observer and recorder.

An account of the historic volcanic activity was given by Roobal (1973). In a comparison between the 1829 map and air photographs taken in 1956 he

shows many changes in the topography. There were many new craters, a notable example being Kroner Lake beside Whaler Bay (Figure 4 Plate 3). In 1829 the shoreline followed the ridge which lies approximately 200 metres from the present coastline and on which the British base hut was situated. Plate 9 shows this as the snow marks the break in slope.

In 1842 the American sealer, Smiley reported the whole of the south side of Deception Island on fire with 13 volcanoes in action. The young cones below Mt Kirkwood are probably related to this period (Plate 1).

Ice stratigraphic studies by Orheim (1971) have shown 23 volcanic eruptions between 1780 to the present. They confirm the sightings of Smiley and indicate there were others between 1912 and 1930. This was the period when the whalers reported the water boiling in Whalers Bay which stripped the paint from ships in 1921 and the dropping of the sea floor by 4.5 metres in 1930. Hubert Wilkins refers to this event, and Governor Hodson records a similar event occurring in 1925 which he heard from the whalers on his visit to the island in 1928.

Between 1930 and 1967 the island remained relatively dormant but the fumaroles were still very active along the beaches. The temperatures recorded in 1961 and shown in Appendix 16, give an indication of the situation at this time.

The violent events in 1967, and 1969 can be judged from plates 43-47. The results of the 1967 eruption were the creation of a new island 15 metres high in Telefon Bay and a covering of ash laid down to the east of this island which stretched to Whalers Bay. The island was ephemeral as by December 1968 it had become joined to the main island and by 1970 it had disappeared.

The February 1969 eruptions were much more devastating. A fissure 5 km long opened up beneath the Mount Pond glacier (Plate 46). It ran from 450 metres high on the east down to sea level at Pendulum Cove (Baker and others, 1975) and created a chasm 100 to 150 metres wide and 30 to 90 metres deep. This created a huge flood which reached depths of 15 metres. Soon afterwards lahars, volcanic mudflows, followed the floodwaters. The combination of these two forces

completely destroyed the Chilean Base and filled the British huts with mud and ice debris. Kroner Lake was breached and the coastline extended tens of metres. The 1970 eruption occurred in August and was reported by the Soviet Base, Bellingshausen situated on King George Island where ash fell on the 13th. It was a violent underwater eruption with associated land centres on Telefon Bay and changed the topography in this area.

The slopes of Mt Kirkwood and the areas around the Argentine Base plus the outer coasts were unaffected.

The island was once a large strato-volcano with flanking parasitic coves which was changed by caldera subsidence which was later breached by the sea. A ring fault is found around the inner harbour and this weakness has been the cause of the recent eruptions. There is some evidence to suggest they occur in a clockwise direction and warnings are given by increased fumarole activity and tremors. The three recent eruptions were all pyroclastic with ash and bombs but no lava flows. The Deception lavas are basic with a unique suite of soda rich rocks which make them of great interest to volcanologists. The future role of Deception Island may well be confined to the island becoming a centre for volcanic studies. Some side effects of these eruptions have already included studies of glacial surge, a comparison of events in Iceland and Deception Island for prediction studies and as an indicator of climatic change.

Baker in his report clearly states (p. 76) that as further eruptions are likely around the ring fault it would be unwise to construct new stations, airstrips or harbour installations. Roobol (personal communication) takes a more optimistic view for future use. In the past 150 years there have been only four volcanic episodes that have occurred around the inner caldera wall within a 2.5 km belt. The greatest danger in the 1967 and 1969 eruptions came from the melting flood waters, or jokulhaups, followed by the lahars or mudflows. These are related to ice masses and danger zones can be predicted beneath Mt Pond, Mt Kirkwood and Stonethrow Ridge. Another danger zone occurs around the

'hot spots' of fumarole activity as these indicate that the magma is close to the surface. Although no areas are safe within the $2\frac{1}{2}$ km belt around the caldera there are sites which have less risks attached to their selection. They include the Cathedral Crag end of Whalers Bay, the Argentine Base at Fumarole Bay and the area between Wensleydale Beacon and Cross Hill. A weak zone occurs across Neptunes Bellows so there is always a danger that this could be closed. One site offers far better prospects for future development, the outer NW terrace known as Kendall Terrace. It is on this favourable prediction that much of the next chapter depends.

CHAPTER 8THE FUTURE OF DECEPTION ISLAND

Violent volcanic eruptions, ruined bases and the evacuation of all the inhabitants would seem to suggest that there can be little future for Deception Island.

There is however evidence to show that these eruptions are restricted to the inner slopes and shoreline and that the outer margins such as Kendall Terrace or Cathedral Crags remain stable. Equally there are sites on the inner basin which can be considered safe from lahar damage (See previous chapter). Assuming that these forecasts are correct then the risks of establishing a permanent settlement may be acceptable.

There are a number of possible future uses. Some are quite feasible now, many could interlock with one another, whilst some are more futuristic. They include:

1. A centre for international scientific studies associated with volcanicity and geothermal power.
2. A summer base for the development of fishing and mineral resources.
3. The development of Deception Island as a tourist base.
4. As an experimental site for farming the fish and seal potential.

It is suggested that any such developments should be organized as an international operation and that Deception Island could be used as an experiment for such work within the framework of the Antarctic Treaty. The alternative could be renewed national rivalry. A key to the success of these developments will be the construction of an inter-continental runway on Kendall Terrace (Figure 4).

1. A centre for international scientific studies

The volcanic history gives the island a special place in scientific studies. It is an active centre showing distinctive features. It possesses a documented

history from 1820 and very detailed observations of the recent eruptions in 1967, 1969 and 1970. Climatological records exist from 1944 to 1967 and other records cover other shorter periods in the past.

With recent increased interest in geothermal power and the work involved in volcanic eruption predictions, Deception Island would appear to be the perfect natural laboratory.

"Geologically the most favourable prospect for the development of geothermal power in Antarctica is Deception Island in the South Shetlands."

Wright and Williams (1974)

During the International Geophysical Year (1957) the three bases carried out various research work in the earth and biological sciences. These could be expanded and marine studies instigated.

The time has come in Antarctica to extend the experiment of having scientific and commercial activities taking place simultaneously from one area. This could be done from Deception Island.

2. A summer base for the development of fishing and mineral resources

Fishing developments are already taking place in the Antarctic and these are likely to become more important in the future. Mineral developments have not yet commenced and it is unlikely that these will within the next decade unless the world shortage of oil becomes more serious. Copper and tin deposits have been reported from the region but the future oil developments are more likely to be associated with the continental shelf of the Weddell Sea. Deception Island could well become a transit point based on the airstrip. The financial success of the building of this facility would become much more feasible if oil interests were involved.

The past whaling industry and modern research have shown the richness of Bransfield Strait and the trenches west of the South Shetland Islands for krill and the fish species, *Notothemii rossi*.

Estimates ranging between 50 and 150 million tons of krill per year have been suggested as a sustainable yield for the Antarctic but this wide range shows

The second tourist interest, partially covered in this study, would lie in the local history which offers a cross section of the Antarctic saga. With sympathetic promotion, places such as Pendulum Cove, Telefon Bay, the Base huts and the old whaling station could be developed.

As the most interesting time for observing the wildlife is in late October and November the use of the airfield is essential.

The size of the rookeries is shown in Figure 6 for the 1953-54 period. In 1961 the Baily Head Rookery was estimated to have 125,000 pairs. The wildlife at Deception is both varied and profuse. Breeding species include the Chinstrap penguin, Pygoscelis antarctica, the Macaroni penguin, Eudyptes chrysolophus and eight birds (See Appendix 22). Most of these can be seen fairly easily.

In addition to these local tourist attractions Deception Island would act as a base for exploratory voyages to the mainland and other islands in the South Shetland group in a similar way to the present day voyages of the *Lindblad Explorer*.

Tourism is already in Antarctica and will continue to grow. The Antarctic wildlife needs protection against indiscriminate visiting and it is suggested a policy of controlled concentration may be the best method. Deception Island can in no way be considered a virgin island free of the tarnish of commercial greed or human settlement. This small island has been inhabited for the past 65 years; tourism could fit in without ill effect.

Such development would have to be in association with economic resource development as it is unlikely to be able to raise enough capital for the runway. Here is an opportunity for an international venture to promote controlled economic development, scientific research and tourism together. It could prove that tourism can coexist happily with these sleeping partners and at the same time become a sound guardian of the wildlife.

4. As an experimental site for farming the fish and seal potential

The time may be arriving when the fur seal populations of the South Shetland Islands could be farmed in a similar manner to that practised at the Pribilof Islands and within the conservation measures of the Antarctic seals convention

AIRFIELD SITES ON DECEPTION ISLAND

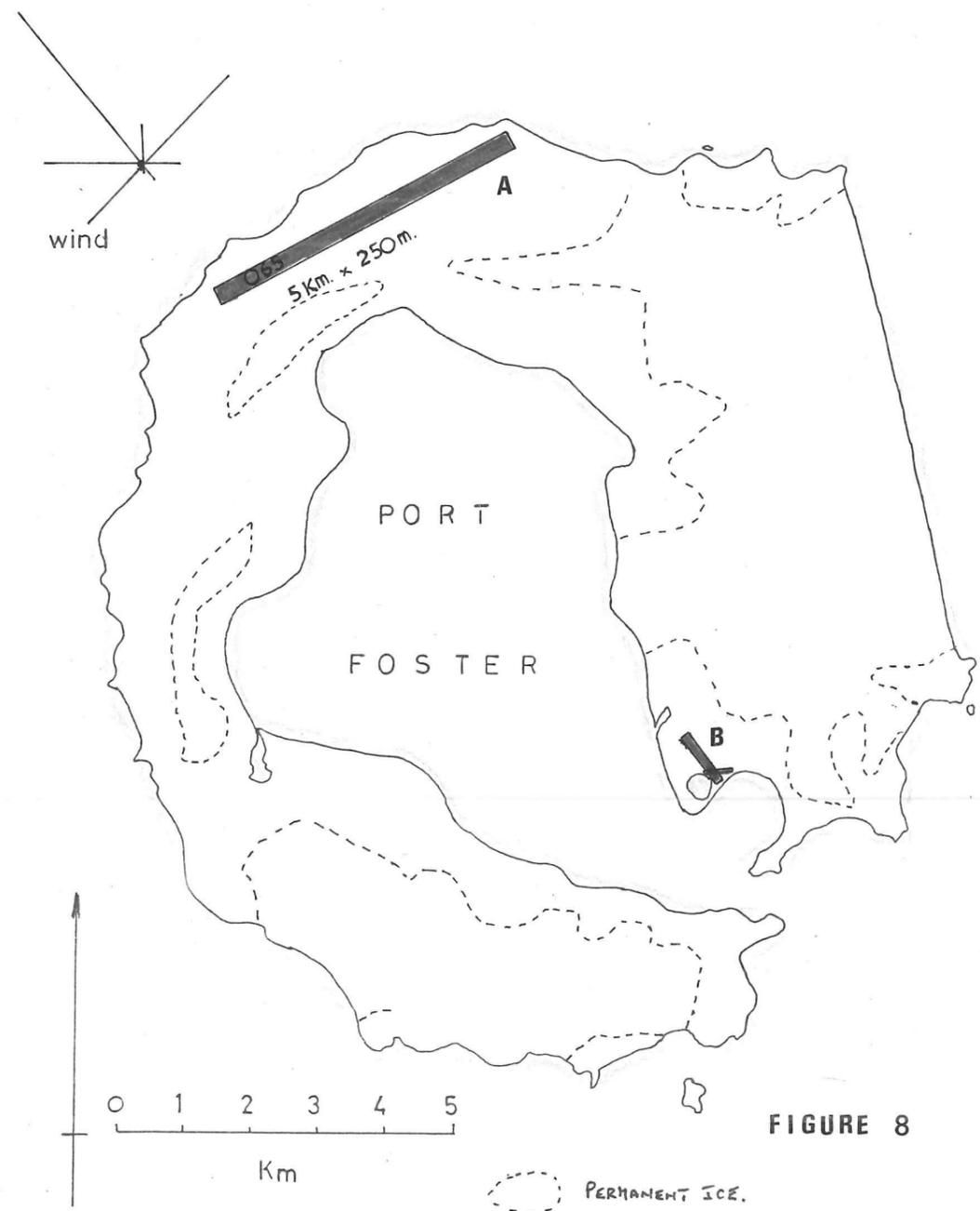


FIGURE 8

A : POSSIBLE SITE FOR MAJOR RUNWAY ON KENDALL TERRACE.
 5 Km. x 250m. BEARING. 065° T. HEIGHT A.S.L. = 100 METRES.

B : BRITISH ANTARCTIC SURVEY RUNWAY. 1 Km x 30m. BEARING 320° T.
 15 METRES A.S.L.
 1969 LAHARS FROM ERUPTION AFFECTED RUNWAY.
 SMALL CROSS-RUNWAY 090.
 AIRCRAFT HANGER AT B CAPABLE OF SHELTERING 2 SINGLE ENGINE OTTER AIRCRAFT.

PREVAILING WINDS : N.W. DOMINANT WINDS : N.E.
 SEE PLATES FOR PHOTOGRAPH OF B. RUNWAY AND HANGER.

(SCAR 1972).

Deception Island could once again become a base for sealing. (Similar ideas were expressed by Lord Rothschild to the 1920 Committee).

Another more futuristic proposal is that Port Foster could be used for experimental fish farming by controlling the entrance at Neptunes Bellows with suitable nets.

It might even be possible to sell penguin eggs again in London as a delicacy as it was in 1908 by Messrs Sprigens and Sons of Leadenhall Market who sold 5,000 eggs on th 5 May at 6d. a piece. A Mr C du P Chiappini was the importer! (Allardyce, 1908).

New Runway, Kendall Terrace

(Figure 8)

The advantages of Kendall Terrace are:

1. A stable site free of volcanic disturbance.
2. An area large enough to accomodate a large runway 5 km x 250 metres.

This size can be compared with the length of the runway at Heathrow airport, London which is 3.89 km long or the 1.8 km that is required for a fully loaded C-130 Hercules aircraft.

There would be no major technical problems in constructing such a runway as the terrace is remarkably flat. Access to the inner basin would have to be via ash ramp. The main disadvantages include the poor alignment compared with the prevailing and dominant winds (See figure 8) and the low stratus cloud.

Both of these can be overcome by modern aids but the lack of alternative landing fields close by is a major problem. The cost of building would be high, for Antarctic standards somewhere between £10 and £20 millions. This is not high in normal commercial activities and perhaps the time has come in the Antarctic when financial values will have to change. The growth and value of the Peru fishing industry is an example of how rapid development can take.

If international development does not take place then national interests could well become dominant again. Although Deception Island no longer holds an important strategic position the island has played a key role in territorial claims since 1905 and it would seem essential for interested parties to maintain a presence on the island if they intend to keep these claims. An international organization to administer Deception Island would forestall such action. It is suggested that this is the ideal future for this historic island.

CONCLUSION

The study has attempted to produce the evidence to show that Deception Island has served as a major focal point. It has shown that to the shores of this small island have gravitated the many threads that compose, and link, the Antarctic saga; the sealers and discoverers, the early scientific adventurers, the whalers, the pilots, the colonialists, the static scientists and the tourists of more recent years. It has been its magnificent sheltered harbour, its ice free areas, its constant fresh water supply and its closeness to the centre of activities which have attracted man to use the island as a base, as a transit point and as the gateway to the Antarctic Peninsula.

As man's knowledge of the region has increased so some of the attractions of the island have lessened. In a similar way new technologies, such as the ability of ships to evaporate their own fresh water or the use of larger aircraft, have made some of Deception Island's facilities superfluous. However the shelter and situation remain and these have continued to give it a significant role. It would however be false to suggest that the island has been the centre of all affairs; this patently has not been the case.

The history of the island mirrors that of the Antarctic and its association with first events in this history is quite remarkable. It can be considered as one of the most historic sites in the Antarctic. No place has as yet ever been designated a capital of any part of this continent but Deception Island can rightfully assume this term for the period 1819-1967. As J M Wordie said in 1946 "Deception Island is the 'capital' of the South Shetlands and Graham Land..."

The preceding chapters have shown that in most phases of Antarctic development, this island has played a role. Sometimes it has been a leading role with lasting influence, at others it has been important at the time but with only a fleeting impact on future events.

There are three such events that stand out in the role of Deception Island. The territorial claims and acts of administration of the British Government in connection with the regulation of whaling from Deception Island is first. These acts heralded the beginning of conservation laws for whaling which are still being formulated and discussed, and the territorial claims have had a lasting impact on future political developments throughout the Antarctic. The second major contribution was the inauguration of Antarctic flying and the subsequent development of aviation from Deception Island. The third contribution with a lasting effect was for the island to act as a meeting place for the nations involved in the territorial disputes during the period 1940-1959.

As it has been shown there have been many other important roles that this island has played but these have been of historic interest with less impact on future events. They include the involvement with the American sealers in 1820 and as a base for the initial voyages of discovery, as a base for the first scientific expedition to the Antarctic and as a shelter and focal point of subsequent expeditions to the Antarctic Peninsula. In more recent times the role of acting as a base for international volcanic research should not be forgotten.

An intriguing situation now exists over its future. Here is an island that has recently experienced violent volcanic eruptions, bases have been totally destroyed and the island abandoned for permanent habitation. Will it remain uninhabited or can it again become a leading centre in Antarctic affairs?

Twenty years ago Bertram (1958) was advocating the value of Deception Island as a strategic base to control the Drake Passage. Geopolitics and strategic values have changed a great deal in these twenty years but recent developments in the southern hemisphere of Russia and other communist countries may once again give prominence to the value of this island in world politics. However a more immediate and likely development in the affairs of this part of the Antarctic concerns the development of marine resources, minerals and tourism. Deception

Island could have a place to play in all three of these developments.

The Antarctic Treaty has promoted international harmony, often at a time when the major powers had little common ground for contact. It has been a place where large and small nations have been able to meet and to promote developments in the scientific fields for the common good of mankind. In a small but important way Deception Island has mirrored this international 'bonhomie' by becoming a friendly meeting place within the Antarctic of three rivals and contestants to Antarctic territory. It could continue to act this role in a wider sphere by becoming the centre of international cooperation in the development of tourism and the economic resources. The alternatives are less attractive as they could well be nationalistic movements on a bigger scale than the past. Perhaps Nature will solve the future of Deception Island rather than Man?

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Visitors observations on Deception Island from
different periods of time

"This Island and its basin would afford a great fund for scientific philosophic investigation of the curiosities of Nature for perhaps on the face of the globe there does not exist a more singular production of this kind."

Robert Fildes. Log of the Cora 1820-21.

(This was probably the first written account of the island)

"This island of Deception as far as regards description may be summed up in a very few words. It is a place of strange contrarities, it is agreeable, it is disagreeable, its scenery is beautiful in one sense and horribly ugly in another, it is cold, it is hot, it is different from any other part of the world and yet in many aspects much the same, in short it is volcanic: perhaps as our men were heard to say 'it is the last place that nature made'."

From the private journal of Midshipman Joseph Henry Kay.

H.M.S. Chanticleer, 1829.

"This island, or shell of an island, is certainly one of the most singular of nature's productions."

W.S. Bruce. Voyage of the Scotia.
1902-1904.

"Deception Island is well named; it would be a good candidate in a competition for the most extraordinary island in the world."

Sir Alister Hardy. Great Waters. 1967.

"There is a loneliness about Deception Island which captivates. Here you have one of the greatest and most astonishing crater islands in the world. It always seems to bear an air of smouldering anger."

Douglas Liveridge. The Last Continent. 1958.

"Down in the South Shetlands, which are just off Graham Land, that curious coccyx jutting out of Antarctica, there is an even odder shape of land. Deception Island is one of this group, and is about as deceptive an island as one could find."

Anthony Smith. Daily Telegraph.
November 28, 1960.

"It is one of the most remarkable crater islands in the world, and one of the most important natural harbours in the stormy Southern Ocean."

"Antarctic". New Zealand.

"If conditions are favourable we will be able to experience the thrills of crossing the threshold. 'Neptunes Bellows', into the large inner harbour, where we will see the results of the eruptions. We will also see how the ashes have covered and damaged the Chilean and British station buildings, the old cemetery and the floating factory."

Lindblad Travel brochure, 1972-3.

DECEPTION ISLAND

"I would once more like to lay emphasis on what I have pointed out in earlier despatches, i.e., that Deception Island, which is horse shaped, is nothing else than the crater of a huge volcano, and that the entrance of the harbour is, as you will see from the accompanying photograph, extremely narrow and could easily be closed. The Island is invariably in a state of activity underground, as is apparent from the boiling springs which abound; the fact that in many spots a few inches below the surface it is impossible to keep one's hand owing to the heat; and that whale carcasses, while floating alongside the factories, do not remain fresh above a day or two in consequence of the high temperature of the water, notwithstanding the close proximity of ice.....

It is quite within the bounds of possibility that the entrance may be found to be blocked before the next whaling season owing to an earthquake and the downfall of the huge loose boulders which guard the channel. Geologists, scientists, whaling masters and others who have visited the locality do not hesitate to express the opinion that it is only a matter of time before a cataclysm occurs. "

Letter from Governor Allardyce of the Falkland Islands and Dependencies to the Right Honourable Lewis Harcourt, P.C., Secretary of State for the Colonies. 7 April 1912.

Price of Whale Oil (per ton)

No 1 Whale Oil

<u>YEAR</u>	<u>HIGHEST</u>	<u>LOWEST</u>
1893	22.0	17.0
1894	18.5	15.0
1895	16.10	15.0
1896	18.0	15.0
1897	16.15	15.10
1898	16.10	15.5
1899	17.0	15.5
1900	22.15	21.5
1901	21.10	19.0
1902	22.0	19.10
1903	20.10	17.10
1904	16.0	14.0
1905	15.10	13.10
1906	23.10	15.10
1907	24.0	21.0
1908	23.10	17.0
1909	20.0	18.0
1910	24.0	19.10
1911	23.10	18.0
1912	23.0	17.0
1913	23.5	21.0
1914	24.0	19.10
1915	25.0	21.0
1916	32.0	28.10
*1917	59.10	48.0
1918	60.10	53.0
1919	77.00	58.10
1920	90.00	82.00
1921	47.00	27.00
1922	33.10	31.00
1923	34.0	32.10
1924	40.0	33.0
1925	37.0	34.0
1926	34.0	30.0
1927	30.0	26.10
1928	31.10	28.0
1929	29.10	25.0
1930	26.0	17.0
*1931	15.0	10.0
1932	16.0	10.0
1933	14.0	10.0
1934	13.0	8.10
1935	20.0	10.0
.....		
1945	44.15	44.0

Source: International Whaling Statistics (Oslo 1950)

LIST OF WHALING LICENCES ISSUED FOR THE DEPENDENCIES OF THE SOUTH
SHETLANDS AND GRAHAM'S LAND FOR THE SEASON 1914-15

STARTED

South Shetland and Graham's Land

LICENSEE	NAME OF VESSEL	TYPE OF VESSEL	No. of LICENSE	
Hektor Whaling Co. (N. Bugge) Tonsberg, Norway	Benguela	Floating Factory	42	1910
	Port Stanley	Whale catcher	"	
	Bransfield	Whale catcher	"	
	T.H. Dahl	3rd Whale catcher	28	
Hektor Whaling Co. (under company's lease of shore factory, Deception Island)	Hektoría	Floating Factory		
	Edle	Whale catcher		
	Ross	Whale catcher		
ODD Whaling Company (Haldor Uirik) Sandefjord, Norway	Goyernoren	Floating Factory	44	1908
	Hval	Whale catcher		
	Ole Wegger	Whale catcher		
	ODD 2	3rd whale catcher	29	
Sociedad Ballenera de Magallenes Punta Arenas Chile	Gobernador Bories	Floating Factory	45	1907
	Almirante Goni	Whale catcher		
	Almirante Valenzuela	Whale catcher		
	Almirante Uribe	3rd Whale catcher	30	
Laboremus Whaling Co. (T. Danneuig and Co) Sandefjord Norway	Roald Amundsen	Floating Factory	46	1910
	Kanon	Whale catcher	"	
	Granat	Whale catcher	"	
	Harpun	3rd Whale catcher	31	
Arktieselscabet (Hvalen) (Andorsen and Neumann) PO Box 23 Christiania, Norway.	Hvalen	Floating Factory	47	1910
	Nor	Floating Factory	"	
	Minerva	Whale catcher		
	Fogo	Whale catcher		
	Dantas Barreto	3rd whale catcher	32	
Southern Whaling Co. (P. Bogen) Sandefjord Norway	Svend Foyn I	Floating Factory	48	
	Graham	Whale catcher	"	
	Norróna 1	Whale catcher	"	
	Selvik	3rd Whale catcher	33	

LICENSEE	NAME OF VESSEL	TYPE OF VESSEL	No. of LICENSE	
George Whaling Co. (G Nielsen and Co.) Larvik Norway	Solstreif	Floating Factory	49	1910
	Eik	Whale catcher	"	
	Bok	Whale catcher	"	
	Bjerk	3rd Whale catcher	34	
Salveson and Co. 29 Bernard St. Leith	Neko	Floating Factory	51	1911
	Horatio	Floating Factory	"	
	Scapa	Whale catcher	"	
	Silva	Whale catcher	"	
	Sonja	3rd Whale catcher	35	
Herman Whaling Co. Kamfjord Sandefjord Norway	Ørn 2	Floating Factory	53	1906
	Havken 2	Whale catcher	"	
	Grib 2	Whale catcher	"	
	Klo 2	3rd Whale catcher	36	
George Whaling Co Kamfjord Sandefjord Norway	Bombay	Floating Factory	54	
	Gvas	Whale catcher	"	
	Havorn	Whale catcher	"	
	Neb 2	3rd Whale catcher	37	
	10 Companies	13 Floating Factories 32 Whale catchers		

WHALING SEASON 1911-12

AREAS OTHER THAN SOUTH GEORGIA

NAME OF COMPANY	RIGHT WHALE	BLUE	FIN	HUMPBACK	TOTALS	OIL BARRELS	VALUE	TONS WHALE BONE	VALUE	REMARKS
NOR	-	91	166	346	603	17,000	£51,000	30	1,500	
Sydhavet (P. Bogen)	4	128	154	130	416	14,000	42,000	40	2,000	
Hvalen (Andorsen and Neuman)	1	65	156	266	488	13,000	39,000	30	1,500	Whalebone approx.
NEW	3	83	189	157	432	11,000	33,000	25	800	
Ørnen	2	109	176	286	573	20,000	53,322	40	800	
Hektor	2	98	230	172	502	15,000	40,000	30	600	1 bottlenose whale
Laboremus	1	130	120	110	361	14,000	37,328	50	1,000	
Norge	2	87	206	230	525	19,000	50,656	50	1,000	
ODD	1	54	196	226	477	15,000	35,000	60	3,000	
Ballenara de Magallanes	1	47	135	249	432	10,770	32,310	28	560	2 bottlenose whale
TOTALS	17	892	1728	2,172	4,809					
Rethual (From Sth. Orkneys)		67	67	114		7,000	18,656	20	400	
Kosmos (From S. Sandwich Isles)		4	11	13		1,000	2,500	-	-	

A STATEMENT FOR THE WHALING SEASON ENDING THE 30th SEPTEMBER, 1914

Enclosure to confidential despatch, 23 November 1914

NAME OF COMPANY	DESCRIPTION OF WHALES CAUGHT					BARRELS OF OIL	APPROX. VALUE	EXPORT DUTY	WHERE EXPORT DUTY PAID	REMARKS
	BLUE	FIN	HUMPBACK	OTHERS	TOTAL					
The Norge Co.	169	242	99		510	24,000	£90,000	£300	STANLEY	
The Hektor Co.	380	356	47		783	38,100	150,400	476.5.0	CROWN AGENTS	A Deposit of £800 to C.A's.
The Hvalen Co.	106	281	108		495	22,200	88,800	277.10.0	STANLEY	
The Laboremus Co.	187	263	74		524	122,000	88,000	275.0.0	STANLEY	
The ODD Co.	137	255	151		543	20,000	80,000	250.0.0	STANLEY	
The Ørnen Co.	181	260	52		493	23,000	92,000	287.10.0	STANLEY	
The Southern Co.	150	182	279		611	18,000	72,000	225.0.0	STANLEY	
Salveson and Co.	162	253	167	3	583	19,000	76,000	237.0.0	STANLEY	Per NEKO
" " " "					-	6,638	26,512	82.17.0	STANLEY	Per HORATIO
The Nor Co.	?	?	?	?	?	17,000	68,000	212.0.0	STANLEY	No partics. Recd.
Ballenera de Magallanes	?	?	?	?	?	12,000	48,000	150.0.0	STANLEY	" " " "
TOTALS	1472	2092	977	3	4544	221,628	887,712	2774.2.0		

Ref: The Falkland Island Dependencies dispatches to the Secretary of State 1912-15. Governor Allardyce.
The Scott Polar Research Institute Manuscript 204/2.

RATES OF WAGES OF WHALING INDUSTRY

South Shetlands 1915-16 Season

Occupation	Wages per month	Share (oil) per barrel
Floating Factories		
Engineers	From 120 to 200 Kroner	From 4 to 10 Öre
Mechanics	" 40 to 120 "	" 3 to 5 "
Carpenters	" 80 to 100 "	" 4 to 5 "
Blubber Boilers	" 60 to 70 "	" 3 to 5 "
Flensers	" 55 to 70 "	" 3 to 5 "
Ordinary Labourers	" 40 to 50 "	" 1 to 3 "
Stewards	" 100 to 110 "	" 6 to 8 "
Cooks	" 70 to 90 "	" 3 to 5 "
Firemen	" 40 to 55 "	" 2 "
Sailors	" 50 "	" 2 "
Boys	" 20 to 30 "	" 1 "
Purser	" 80 to 120 "	" 6 "

On Whale Catchers	Wages per month	Share per Whale			
		Blue	Fin	Humpback	Right
Gunner	125 K	80 K	50K	30K	200K
Master (when not Gunner)	100 K	6	5	4	10
Engineer (1st)	160 K	6	5	4	10
" (2nd)	130 K	6	5	4	10
Fireman	40 K	4	3	2	10
Sailors	60 K	6	5	4	10
Steward	75 K	6	5	4	10

(19220 1 Krone = ls. 1½d. 100 Öre = 1 Krone)

Ref. H.M.S.O. Report of the Interdepartmental Committee etc. April 1920.

REVENUE FROM THE WHALING INDUSTRY

YEAR	1914	1915	1916	1917	1918	1919
	£	£	£	£	Estimate	Estimate
Export tax on Whale oil	5,262	5,435	7,839	6,465	4,500	3,800
Whaling leases and licences	4,400	4,700	2,300	2,200	2,200	2,200
TOTAL	9,662	10,135	10,139	8,665	6,700	6,000
Total ordinary Revenue of Colony	33,760	34,347	39,106	36,491	30,247	35,776
Whale Revenue as a % of total	29	29	26	24	22	17

FALKLAND ISLANDS

Whaling Regulations

Under the power and authority in him vested by section 3 of the 'Whale Fishery Ordinance, 1908', His Excellency the Governor, by and with the advice of the Executive Council, is pleased to make the following Regulations:

1. The period for which Whaling Licenses shall be issued shall commence on the 1st October of each year and terminate on the 30th September of the succeeding year.
2. On and after this date separate Whaling Licenses shall be issued for:-
 - a) The South Shetlands and Graham's Land,
 - b) The South Orkneys,
 - c) The Falkland Islands.
3. Each Whaling License shall be applicable to one floating factory and two steam whalers, and should permission be granted to any applicant by the Governor in Council to employ a third steam whaler a special fee of £100 will require to be paid on this account.
4. No greater number than ten Whaling Licenses shall be issued in any one year for the South Shetlands and Graham's Land.
5. Any applicant for a Whaling License for
 - a) The South Shetlands and Graham's Land, or
 - b) The South Orkneys,
 must send in his application so as to reach the Colonial Secretary, Falkland Islands, not later than the 1st June, 1911, and not later than the 1st April in succeeding years.
6. Each application for a Whaling License shall be registered when received in a register to be termed the Whaling License Register.
7. These Regulations shall have no application to South Georgia.

Dated at Government House, Stanley, this sixth day of February, 1911.

By Command,

W.A. THOMPSON,
Acting Colonial Secretary.

Regulations made by the Governor in Council under the Harbour Ordinance, 1902.

No. 1 of 1948.

MILES CLIFFORD,
Governor.

In pursuance of the powers vested in him by Section 2 of the Harbour Ordinance 1902, and otherwise, His Excellency the Governor is pleased to order with the advice and consent of the Executive Council as follows:

1. These Regulations may be cited as the Port Foster Harbour Regulations 1948. Short Title.

2. No vessel or boat shall be moored or anchored in the harbour without the consent of the Harbour Master. Any vessel or boat shall immediately be moved upon the order of the Harbour Master to any mooring or anchorage approved by him. Mooring and anchorage.

3. No hulk shall have any fixed moorings without the written permission of the Harbour Master. Hulks.

4. Vessels at anchor outside the limit assigned to hulks shall exhibit, from sunset to sunrise, the following light or lights - Lights on vessels at anchor.
 - (a) A vessel under one hundred and fifty feet in length, when at anchor, shall carry forward, where it can best be seen, but at a height not exceeding twenty feet above the hull, a white light, in a lantern so constructed as to show a clear, uniform and unbroken light, visible all round the horizon at a distance of, at least, one mile.
 - (b) A vessel of one hundred and fifty feet or upwards in length, when at anchor, shall carry in the forward part of the vessel, at a height of not less than twenty feet and not exceeding forty feet above the hull, a white light in a lantern so constructed as to show a clear, uniform and unbroken light visible all round the horizon at a distance of, at least, one mile, and at or near the stern of the vessel, and at such a height that it shall not be less than fifteen feet lower than the forward light, another similar light.

5. All vessels shall when under way in the hours of darkness in the Harbour carry in the fore part of the vessel and at a height of not less than nine feet above the gunwhale Lighters or vessels under way.
 - (a) a bright white light of such a character as to be visible at a distance of not less than two miles, and
 - (b) green and red side lights of such a character as to be visible at a distance of not less than one mile, or a combined lantern showing a green light and a red light from right ahead to two points abaft the beam on their respective sides.

Provided that

Small vessels, without masts, may carry the white light at a height at less than nine feet above the gunwhale, but it shall be carried above the combined lantern mentioned in (b) above.

6. Rowing boats, whether under oars or sail, shall have a lantern showing a white light which shall be exhibited in sufficient Lights on rowing boats.

7. (a) No person shall collect, remove or cause to be removed any timber or wood, for any purpose whatsoever, from the foreshores of the Harbour without the written permission of the Harbour Master. Collection of timber.
- (b) No person shall remove any iron, steel, metal or wood work from the old whaling factory without the written consent of the Harbour Master.
8. (a) No person shall remove any sand, stone or gravel from the foreshore of the Harbour without the written permission of the Harbour Master. Removal of sand etc.
- (b) Every person permitted to remove sand and stone or gravel shall pay to the Harbour Master one shilling for each ton removed by him.
9. No person shall take fresh water without the consent of the Harbour Master. Fresh water.
10. (a) No ballast, dunnage, ashes or rubbish of any description shall be thrown in the water within 400 yards of low water mark. Ballast rubbish.
- (b) Ballast and waste oil shall be discharged in accordance with the direction of the Harbour Master.
11. All boats or craft shall be beached in accordance with the directions of the Harbour Master. Beaching craft.
12. No person shall discharge any fire-arm at, or throw any stone or other missile at, any seabird or wild animal within the limits of the Harbour, provided that nothing in this section shall serve to prohibit birds or animals from being killed for the protection of property, or obtained by, or with the authority of the Government Naturalist for Scientific purposes. Firing or throwing stones at birds etc. in the Harbour.
13. Every boat or craft shall pay harbour rates at the rate of one penny per ton her net registered tonnage for every day or part of a day she remains in the Harbour. Harbour rent.

Made by the Governor in Executive Council on the 10th day of January, 1948.

L. W. ALDRIDGE,
Clerk of the Executive Council.

FALKLAND ISLANDS

Enclosure No 2 to despatch No 58 of 10 May 1911.

Extract from the Minutes of the Executive Council of 8 May, 1911.

C.S. 178/1911. Proposed lease of land at Deception Harbour, South Shetlands.

Council advised that the lease of a parcel of land at Deception Harbour, South Shetlands, for a term of 21 years at an upset price of £250 per annum be tendered for by the ten Whaling Companies now operating at the South Shetlands subject to the conditions marked B.

Governor concurred and ordered accordingly.

B.

Lease of landDeception Harbour, South Shetlands

Tenders will be received at the office of the Crown Agents, Whitehall Gardens, London S.W., up to noon on _____ for the lease of a parcel of land at Deception Harbour, South Shetlands.

It is proposed by the Government of the Falkland Islands to lease a parcel of land at the above locality for a term of 21 years from 1 October, 1911, for the erection thereon of a factory for the utilization of the whole carcass of the whale.

The Colonial Government does not bind itself to accept any tender.

Conditions

1. Lease to be for a period of 21 years from 1 October, 1911, at an upset price of £250 per annum.
2. The leasees to be granted a sufficient area on which to erect a whale factory capable of utilizing the whole of the carcasses of not less than five blue whales per diem (4 humpback = 1 blue approx.)

$$1\frac{1}{2} \text{ Fin} = 1 \text{ " " "}$$
3. The Leasees to be granted a sufficient and reasonable water frontage of about 300 yards.
4. The Leasees to be granted the exclusive right of creating a whale factory on Deception Island.
5. The Leasees to be granted a free permit to employ one floating factory and two steam whalers in the territorial waters of the South Shetlands.
6. The Leasees to have the sole right to take over all discarded whale carcasses in Deception Harbour.

7. The Lessees to undertake to utilize not only the whole of the whale carcasses caught by their steamers, but as many of the discarded carcasses as will amount in the aggregate to the equivalent of five blue whales per diem (on the basis given above) during the whaling season.
 8. The Lessees to provide the official appointed by the Colonial Government to supervise the whale fishery with a free passage once a year between Port Stanley and Deception Island, and maintenance while on board.
 9. The Lessees to keep in stock on the land leased not less than 200 tons of coal to be supplied at 15% above cost price to vessels in distress.
 10. The Lessees to grant to all authorized persons and to the employees of licensed Whaling companies when so desired by the Manager full facilities of access to the shore on the land leased.
-

STIPENDIARY MAGISTRATES APPOINTED TO DECEPTION ISLAND BY THE FALKLAND
ISLANDS GOVERNMENT

1910-11	H Newing
1911-12	E B Binnie
1912-13	W Moyes
1913-14	A G Bennett
1914-15	W Barlas
1915-16	J I Wilson
1916-17	A G Bennett
1917-18	A G Bennett
1919-20	S Riches
1920-21	J E Hamilton
1921-22	A G Bennett
1922-23	A G Bennett and A G Hardy
1923-24	J E Hamilton, S Riches and J G Turner
1924-25	S Riches
1925-26	A G Bennett and George Bennett
1926-27	A G Bennett
1927-28	Stewart
1928-29	G Brechin
1929-30	G Brechin

Graves in Whalers' Cemetery on Deception Island

As recorded by the Deception Magistrates.

Note: This is the record from Port Stanley. It does not record those who were buried prior to 1913, before the arrival of a magistrate.

Reference: Signal to British Antarctic Survey, Cambridge from Port Stanley, Falkland Islands. M/1012/70

Date of Death	Name	Age
17.11.53	Arthur Henry Farrant (F.I.D.)	40
14.3.31	Peder Knapstad	Not known
31.12.29	Oscar Anderson	" "
1.4.29	Ivar Likness Torrison	35
23.1.29	A.M. Begann	Not known
7.4.29	Andreas Anderson	" "
4.1.29	Hans Albert Gulliksen	56
4.4.25	Erling Ostern	24
4.4.25	Einer Mathisen	37
6.11.24	Albert Johansen*	Not known

* The following were recorded as drowned. The records show they died at the same time as Albert Johansen but that only Johnansen's body was recovered. Probably a memorial plaque at Cemetary.

6.11.24.	Karsten Andersen	
6.11.24	Rueben A Larsen	
6.11.24	Karsten Lalborn	
6.11.24	Karsten Harka	
6.11.24	Thorsten Trondsen	
6.11.24	Haaken A Strand	
6.11.24	Christien Evensen	
6.11.24	Alfred Hansen	
6.11.24	Erling Hansen	
11.3.24	Mathias Anderssen	Not known
11.3.24	Neils Samuelsen	53
11.3.22	Carl Olaf Gjorsoe	25
3.4.22	Emil Hansen Myhrbraaten	29
19.3.19	Harold Sjorald	40
22.11.18	Nills Hansen	19
5.3.16	Axel L Johnson	39
2.3.16	Anon Anonsen	52
7.1.15	Karl O Johansennoe	34
7.1.15	Max Slavonski	29
18.12.14	Anton Antorisen	17
7.1.14	Olav Nielsen	42
1.3.14	Soren Hansen	42
16.12.13	Sigurd Carlsen	22

FALKLAND ISLANDS

Extract from the minutes of the proceedings of the Executive Council at a Meeting on 6 May 1912.

C.S.O. 211/1912 Port of Entry at South Shetlands

Council advised that Port Foster, Deception Island, South Shetlands, be declared a Port of Entry as from 1 October next, maintainable only during the whaling season in each year; and that the Customs officer who proceeds annually to that Dependency be given an Acting Commission as Magistrate and Coroner for the South Shetlands, the South Orkneys, and Graham's Land.

Council likewise advised that suitable quarters, comprising an office, bedroom, and sitting-room, be erected at Factory Bay, Port Foster.

Governor concurred and ordered accordingly.

No. 149.

Order of His Excellency the Governor in Council
declaring Port Foster, Deception Island, to be a Port
of Entry.

In pursuance of the powers in him vested by section 1 of the CUSTOMS ORDINANCE 1903, His Excellency the Governor, by and with the advice of the EXECUTIVE COUNCIL pleased to direct that PORT FOSTER, DECEPTION ISLAND, SOUTH SHETLANDS be declared to be a Port of Entry from the 1st October, 1912, and that the said Port of Entry be maintained during the whaling season only.

Made in Executive Council, at Government House, Stanley, this 6th day of May, 1912.

T. A. V. BEST,
Colonial Secretary.

6th May, 1912.

M.P. 211.1212.

FIRST RADIO LICENCE

Falkland Islands

Government House, Stanley.

Confidential

2nd July, 1912.

Sir,

I have the honour to acknowledge the receipt of your Confidential despatches of 22nd April and 4th May, and, as requested in the latter, I transmit herewith for your consideration a draft of the Wireless Telegraphy License which it is proposed to issue to the Whaling Company at Deception Island.

2. At present it seems a little doubtful whether any whaling company will be prepared to install on a floating factory a wireless plant capable of maintaining communication between the South Shetlands and the Stanley Station.

3. In view, however, of the near approach of the whaling season I shall be glad to know whether you approve of the form of License submitted.

I have the honour to be,

Sir,

Your most obedient,
humble servant,

Governor

Right Honorable
Lewis Harcourt, P.C.,

&c. &c. &c.

Secretary of State for the Colonies

FALKLAND ISLANDS

Enclosure to Confidential despatch of 2nd July, 1912.

Licence by His Excellency the Governor in Council to install and work Apparatus for Wireless Telegraphy.

In pursuance of the powers in him vested by section 1 of the Wireless Telegraphy Ordinance, 1912, His Excellency the Governor, by and with the advice of the Executive Council, is pleased to grant unto the Whaling Company of _____, hereinafter called "the Company", this LICENCE to install and work apparatus for wireless telegraphy on board the s.s. " _____ ", floating factory belonging to the said Whaling Company, subject to any Wireless Telegraphy Regulations in force in the Colony, and on the following terms and conditions:-

1. This LICENCE shall be applicable to the territorial waters of the South Shetlands and Graham's Land only, and shall be valid from the 1st October, 19____, to the 30th September, 19____, both dates inclusive.
2. Should an officer of the Colonial Government require the Company to transmit a message on His Majesty's Service, such message shall have priority over all other messages and shall be transmitted by the Company without undue delay, and until transmission thereof the Company shall suspend the transmission of all other messages.
3. The Company shall accept and transmit without favour or preference the message of any person. Messages on the business of the Company or emanating from the floating factory shall not have priority over other messages. All messages accepted or received by the Company for transmission or delivery shall, when practicable, be transmitted or delivered in the order in which they shall have been accepted for transmission or received.

4. Any person in the employment of the Company who
- a) wilfully or negligently omits or delays to transmit or deliver any message, or
 - b) prevents or delays by any wilful or negligent act or omission the transmission or delivery of any message, or
 - c) divulges improperly to any person the purport of any message,
- shall, for every such offence, be liable to a penalty of not less than twenty pounds.
5. All messages shall be transmitted through the Government Station at Stanley. At the end of each month a return of the messages received and despatched during the month and the number of words in each message shall be sent in to the Postmaster, Stanley. Such messages shall be numbered consecutively in the order in which they have been transmitted or received. The return shall be accompanied by copies of all messages sent and received through the Stanley Station.
6. This LICENCE is not transferable.

Given in Executive Council at Government House, Stanley, this
..... day of, 19..... .

Colonial Secretary

Falkland Islands.

Government House, Stanley.

Confidential

22 November, 1912

Sir,

I have the honour to acknowledge the receipt of your telegram of the 8th instant relative to the draft Wireless Telegraphy Licence to be issued to the Whaling Company at Deception Island, South Shetlands, submitted in my confidential despatch of 30th September last.

2. Since that date, three floating factories, ie s.s. "Ronald" and s.s. "Hektor" belonging to the Hektor Whaling Company, and s.s. "Falkland" belonging to the Rethval Whaling Company, fitted with wireless installations, have called at Port Stanley on their way to the whaling grounds. A licence, on the lines of the above mentioned draft, to instal and work apparatus for wireless telegraphy in the territorial waters of the South Shetlands and Graham's Land has accordingly been issued to the floating factories "Ronald" and "Hektor", and a similar licence for the South Orkneys to the floating factory "Falkland".

3. As the last of these licences was handed over to the licensee prior to the arrival of your telegram under acknowledgment, none of the three contains the addenda mentioned therein, but I will have them inserted in any wireless telegraphy licence which may be granted in future to a whaling company.

Right Honble.
Lewis Harcourt, P.C.,

&c., &c., &c.,

Secretary of State for the
Colonies
Downing Street, S.W.

4. I have to express regret that in the last line of my confidential despatch of 30th September I inadvertently made use of the word "signature" instead of "acceptance".

I have the honour to be,

Sir,

Your most obedient

humble Servant,

Governor

Administration of the Falkland Islands.

"Etat signalétique" of Radiotelegraph Stations.

(b) Ship Stations.

Name	s.s. "Hektoria".
Nationality	Norwegian
Call Signal	L. C. A.
Normal Range in Nautical Miles.	695 (maximum).
Radiotelegraph System with the Characteristics of the System of emission.	Telefunken.
Wave-lengths in Metres.	<u>600</u> 300 for Ships.
Nature of Services effected.	P.G. and X.
Working Hours	-
SHIP CHARGE.	
Per Word in Francs	1 fr. 25 c.
Minimum per Radiotelegram in Francs.	-
Locality	The territorial waters of the South Shetland Islands and Graham's Land.
Period	November to March.
OBSERVATIONS.	-

Falkland Islands.

No. 23.

Government House, Stanley.

31 January, 1913.

Sir,

With reference to my despatch No. 75 of 8th June, 1912, regarding the issue of a license authorizing the Ornen and Nor Whaling Companies to employ, during the 1912-1913 whaling season, an additional floating factory in the territorial waters of the South Shetlands and Graham's Land, I have the honour to inform you that a wireless telegram was received on the 25th instant from Mr. E B Binnie, the Stipendiary Magistrate at Port Foster, to the effect that the "Pisagua", the floating factory licensed as above, has been wrecked, but without loss of life.

I have the honour to be,

Sir,

Your most obedient

humble Servant,

Governor

The Right Honble
Lewis Harcourt, P.C.,

&c., &c., &c.,

Secretary of State for the Colonies
Downing Street, S.W.

TEMPERATURE RECORDS AND OBSERVATIONS FROM "BISCOE WELL", KRONER LAKE AND
HOT SPRINGS. WHALERS BAY, PORT FOSTER, DECEPTION ISLAND

Southern Winter 1961

Reference: Personal observations, J B Killingbeck

("Biscoe Well" is situated 20 metres east of the factory oil tanks and approximately halfway across Whalers Bay. It was used regularly by all ships for watering in 1960-1, 1961-2 seasons)

Date	"Biscoe Well" (Water Temperature)	Kroner Lake (Ash at edge) Max. Temp.	Air Temperature (1400)	Observations
5.61		+42°C One spot in ash 43.3	-6.9°C	Temperature of ash by dry dock 43.3°C at half tide. Temperature of ash on beach 400 metres due east 0°C.
5.61.	18.3°C	52°C (13.5.61) 9th Soft ice - two fell in.	-3.3°C	Temperature of ash 12" above centre of hot springs at Pendulum Cove = 26.7°C. Too hot to bathe in (Chilean report)
5.61.	12.2°C	52°C (max)	-4.4°C	
5.61.	10.6°C		-6.8°C	
6.61.	17.2°C	40°C	-8.9°C	New ice on Whalers Bay 1" thick
6.61.	15.6°C	Kroner frozen over sledging across Lake Kroner.	-8.4°C	
6.61.	15.6°C		-10.0°C	Whalers Bay completely cover in ice except for area around local hot spots.
6.61.	17.8°C	Water pool on NW shore 43.3°C.	-3.9°C	Seal hole shows 30" ice thickness in Port Foster.
6.61.			-11.1°C	
6.61.	16.7°C	NW side pool still open.	-20.6°C	
7.61.	17.8°C		-7.2°C	
7.61.	18.3°C		+0.9°C	
7.61.	18.3°C		-3.8°C	Ash temperature 54.4°C at 4" below surface, engineers hut, East Beach.
6.61.		Half of lake now open.	-13.7°C	Ice thickness. Port Foster 100 metres south of Penfold Point = 70 cm. 100 metres north of Collins Point = 96 cm

Date	"Biscoe Well" (Water Temperature)	Kroner Lake (Ash at edge) Max. Temp.	Air Temperature (1400)	Observations
.61.	17.2°C	Freezing over. NW remains open.	-12.3°C	Ash temperature on steaming beach east of factory 37.8°C.
8.61.	18.3°C		-11.1°C	Sea temperature centre of bay beneath ice = 1.8°C.
8.61.			-10.3°C	Local steam from beaches affect- ing whole base area including Met. station 120 metres away.
.61.			-5.6°C	Bubbling on west beach, 54.4°C Discoloration on beach.
.61.	18.3°C	29th. Open water plus steam	-8.9°C	East beach 56.7°C. Steam rising from all areas.
61.	18.9°C		-5.8°C	West beach 46.7°C. All steaming centre of Whalers Bay 72 cm ice + 20 cm snow.
.61.	18.6°C		+1.2°C	
.61.	18.6°C		-0.9°C	Ice thickness 110 cm between Penfold Point and Collins Point. Sea temperature -1.7°C.
.61.	18.3°C		-0.1°C	
.61.	19.4°C		-9.2°C	
0.61.	18.9°C		-3.8°C	Whalers Bay open as far as Penfold Point.
0.61.	14.4°C		+0.6°C	
0.61.	12.2°C		+1.1°C	

Summary of climate 1961. Daily Mean = -3.4°C
 Extreme Maximum = 7.8°C (21 and 26 Jan.)
 Extreme Minimum = -23.9°C (4 July)

Winds 50° - 70° = 20%
 260° - 280° = 15%
 290° - 310° = 15%
 320° - 340° = 14½%

The ground at Deception Island shows frozen layers in the ash at 18". These continue for a further 18" and then merge into unfrozen unconsolidated ash. The frozen layers persisted throughout the summer of 1961. A mechanical drill (warsop) was required to break these frozen layers. Observations made during the construction of the aircraft hangar. 1961.

Note from the Magistrate at Deception Island concerning an Argentine Base Plate on Collins Light.

October 1944

Reference: FID Sc.B. No 72.

Brass plate attached by four small bolts and nuts to door of cylinder basement of west or inner lighthouse.

Deception Island

Owing to metal tarnish blending with paintwork of lighthouse its presence was only revealed in close examination.

To permit fastening of nuts the basement door had been opened but the components had apparently not been disturbed. The door had been carefully refastened as there were no signs inside of deterioration by weather. The only other obvious sign of interference was the displacement of the lantern, of the red glass etc.

W.R. Flett
A/C Magistrate



Argentine message found in brass cyclinder at base of flagpole in front of Magistrate's house, Deception Island.

Found on the 3rd February, 1944 by L. Ashton in the presence of A.T. Berry and N.F. Laytter and W.R. Flett (Magistrate).

Republica Argentina,
Ministerio de Marina

ACTA

Per la presente acta certifico que esta Isla Deception la sido visitada en la fectia par el buque de la Armada de la Republica Argentina "I^o de MAYO" bajo mi mando en el transcurque be desembarcado aqui en comparia de mi 2 do Commandante, Teniente de Navio, Bernanado N. Rodriguez y del Dr Pascuel Sgrosso, funcionario del Ministerio de Relaciones Exteriores en el desempeño de la gestion que le ha sido ancomendada.

Marco II de 1943

(Sgd.) Silvano Harriague
Capitan de Fragata
Comandante

Facisimile of Rubber Stamp

(Sgd.) Bernardo N. Rodriguez,
Teniente de Navio
Segundo Comandante

(Sgd) Pascual Sgrosso
Funcionario del Ministerio de
Relaciones Exteriores

Example of a letter delivered to any ship returning to Deception Island after a previous letter had been ignored.

The Magistrate's Office
Deception Island
Falkland Island Dependencies

Date

Sir,

I have the honour to inform you that I am unaware that His Britannic Majesty's Government have granted permission for Argentine/Chilean Naval vessels to visit Deception Island.

As explained to you in my letter dated..... this island is British Crown Land and the surrounding and enclosed seas are British Territorial Waters and permission to enter this area should be obtained through His Excellency the Governor and Commander in Chief, Falkland Island and Dependencies.

Until such permission has been obtained and notification of same received by myself, I must again protest vehemently against the continued presence of your ship here.

I have the honour to be, Sir,

Your obedient servant,

John Huckle
Lieutenant D.S.C.
Magistrate, Deception Island.

The Commanding Officer
Ship concerned.

The Magistrate's Office
Deception Island
Falkland Islands Dependencies

19 December 1947

Sir,

I have the honour to inform you that I have observed a large depot of stores, including one aircraft has been disembarked from the ships under your command on the western part of Deception Island.

I must inform you that the landing of such stores without permission from His Britannic Majesty's Government is strictly forbidden by laws of the Falkland Islands and Dependencies.

I must instruct that you order the men responsible for the disembarkation of these stores to remove them immediately.

As explained to you verbally by myself, Deception Island is British Crown Land, and the surrounding and enclosed seas are British Territorial Waters. Permission to enter this area should be obtained through his Excellency the Governor and Commander in Chief, Falkland Islands and the Dependencies, and until such permission has been obtained and notification of the same received by myself, I must again protest vehemently against the presence of Argentine Naval vessels and shore parties here, and the continuance of their present illegal activities.

I have the honour to be, Sir,

Your obedient servant,

(John Huckle)
Lieutenant, D.S.C.

The Senior Argentine Naval Officer Present,
Deception Island

Ref: E.123/47 1948 The activities of Foreign Expeditions at Deception Island. Summer 1947-8. By J. Huckle. F.I.D.S. (British Antarctic Survey, Cambridge)

TRANSLATION

Ministry of Marine Deception Island, on board the Escort "King" A.R.A.
20 December 1947.

To: Lieutenant of the British Navy, John Huckle

With regard to the letters dated 19 December 1947, which you delivered to the writer and the commanding officers of the ships "King", "Pampa", "Ministro Eycurra" and "Charrua" and which protest against the presence of the ships named and the disembarkation of an aircraft and stores, I have the honour to inform you:

1. That Deception Island is included in the Argentina Antarctic sector.
2. That all actions carried out in the area mentioned are performed by my own authority.
3. That I do not recognise any other authority than that of my Government.

By this explanation I am pleased to inform you that I am unable to recognise your protest and that I do not require the permission you have referred to.

I have the honour to be,

Signed. RICCARDO HERMELO
Commander

Chief of the Antarctic Expedition

Biscoe House
Deception Island
Falkland Island Dependencies

10 January 1954

From: The Magistrate, Deception Island

To: El Comandante en Jefe de la VII Commision Antartica Chilena

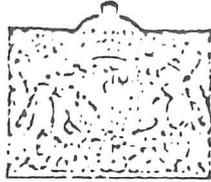
You are hereby reminded that Deception Island is British Territory, having been incorporated in the Falkland Islands and its Dependencies by Letters Patent bearing the date 21 July 1908 and 28 March 1917. The Governor of the Falkland Islands and its Dependencies is willing to facilitate activities of a strictly scientific character so long as no infringement of British Sovereignty is attempted or implied, but his prior assent to every such undertaking must be obtained.

I have no notification of your visit to this Island, which constitutes part of the aforementioned Falkland Island Dependencies, nor has such permission been sought through me.

The contents of your communication of today's date together with the disregard of Portrullero No 1 Lautaro of Para 9 of the Regulations governing the use of this Harbour, delivered by myself to her Captain this day, before she had commenced watering, constitute definite infringement of British Sovereignty.

I must, therefore, protest strongly against these infringements and acts of trespass, which will be reported to Her Majesty's Government.

C C Edwards



Date..... 19.....

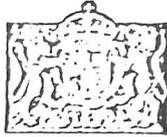
From the Magistrate.....

To.....

You are hereby reminded that..... is British territory, which was incorporated in the Falkland Islands and its Dependencies by Letters Patent bearing date 21st July, 1908 and 28th March, 1917. The Governor of the Falkland Islands and its Dependencies is willing to facilitate activities of a strictly scientific character so long as no infringement of British sovereignty is attempted or implied but his assent to every such undertaking must be obtained (through me) by telegram, failing which it will be regarded as an act of trespass and will be so reported forthwith to Her Majesty's Government.

(Sgd.)

Magistrate.



Her Majesty's Resident Magistrate and Harbour Master in the Falkland Islands Dependencies at Deception Island in the South Shetlands, presents his compliments and encloses for information a copy of the Regulations made by the Governor-in-Council under the Harbour Ordinance 1902.

The Harbour Master will be pleased to advise or assist you within his power during your stay in these waters.

DECEPTION ISLAND,
FALKLAND ISLANDS DEPENDENCIES.

Regulations made by the Governor in Council under the Harbour Ordinance, 1902.

MILES CLIFFORD,
Governor.

No. 1 of 1948.

In pursuance of the powers vested in him by Section 2 of the Harbour Ordinance 1902, and otherwise, His Excellency the Governor is pleased to order with the advice and consent of the Executive Council as follows:

1. These Regulations may be cited as the Port Foster Harbour Regulations 1948. Short Title.

2. No vessel or boat shall be moored or anchored in the harbour without the consent of the Harbour Master. Any vessel or boat shall immediately be moved upon the order of the Harbour Master to any mooring or anchorage approved by him. Mooring and anchorage.

3. No hulk shall have any fixed moorings without the written permission of the Harbour Master. Hulks.

4. Vessels at anchor outside the limit assigned to hulks shall exhibit, from sunset to sunrise, the following light or lights - Lights on vessels at anchor.
 - (a) A vessel under one hundred and fifty feet in length, when at anchor, shall carry forward, where it can best be seen, but at a height not exceeding twenty feet above the hull, a white light, in a lantern so constructed as to show a clear, uniform and unbroken light, visible all round the horizon at a distance of, at least, one mile.
 - (b) A vessel of one hundred and fifty feet or upwards in length, when at anchor, shall carry in the forward part of the vessel, at a height of not less than twenty feet and not exceeding forty feet above the hull, a white light in a lantern so constructed as to show a clear, uniform and unbroken light visible all round the horizon at a distance of, at least, one mile, and at or near the stern of the vessel, and at such a height that it shall not be less than fifteen feet lower than the forward light, another similar light.

5. All vessels shall when under way in the hours of darkness in the Harbour carry in the fore part of the vessel and at a height of not less than nine feet above the gunwhale Lighters or vessels under way.
 - (a) a bright white light of such a character as to be visible at a distance of not less than two miles, and
 - (b) green and red side lights of such a character as to be visible at a distance of not less than one mile, or a combined lantern showing a green light and a red light from right ahead to two points abaft the beam on their respective sides.

Provided that

Small vessels, without masts, may carry the white light at a height at less than nine feet above the gunwhale, but it shall be carried above the combined lantern mentioned in (b) above.

6. Rowing boats, whether under oars or sail, shall have a lantern showing a white light which shall be exhibited in sufficient time to prevent collision. Lights on rowing boats.

7. (a) No person shall collect, remove or cause to be removed any timber or wood, for any purpose whatsoever, from the foreshores of the Harbour without the written permission of the Harbour Master. Collection of timber.
- (b) No person shall remove any iron, steel, metal or wood work from the old whaling factory without the written consent of the Harbour Master.
8. (a) No person shall remove any sand, stone or gravel from the foreshore of the Harbour without the written permission of the Harbour Master. Removal of sand etc.
- (b) Every person permitted to remove sand and stone or gravel shall pay to the Harbour Master one shilling for each ton removed by him.
9. No person shall take fresh water without the consent of the Harbour Master. Fresh water.
10. (a) No ballast, dunnage, ashes or rubbish of any description shall be thrown in the water within 400 yards of low water mark. Ballast rubbish.
- (b) Ballast and waste oil shall be discharged in accordance with the direction of the Harbour Master.
11. All boats or craft shall be beached in accordance with the directions of the Harbour Master. Beaching craft.
12. No person shall discharge any fire-arm at, or throw any stone or other missile at, any seabird or wild animal within the limits of the Harbour, provided that nothing in this section shall serve to prohibit birds or animals from being killed for the protection of property, or obtained by, or with the authority of the Government Naturalist for Scientific purposes. Firing or throwing stones at birds etc. in the Harbour.
13. Every boat or craft shall pay harbour rates at the rate of one penny per ton her net registered tonnage for every day or part of a day she remains in the Harbour. Harbour rent.

Made by the Governor in Executive Council on the 10th day of January, 1948.

L. W. ALDRIDGE,
Clerk of the Executive Council.

M.P. 0254.

Biscoe House
Deception Island

16 April 1953

From: Magistrate, Deception Island.

To: The Chief Justice, Falkland Islands and its Dependencies
Government House
Port Stanley

Sir,

I have the honour to submit a report on the case of

FALKLAND ISLANDS DEPENDENCIES

v.

ABLE SEAMAN FRANCIS McNALLY
Official Number Portsmouth SS x 8 194130
H.M.S. Bigbury Bay

On the afternoon of 2nd April, I observed that some penguins had been fed to our husky dogs.

Later, in conversation with Major Edwards, of the Deception Island Force, Royal Marines, I learnt that an officer of H.M.S. Bigbury Bay had observed a seaman throwing a live penguin to a dog. This had been reported to the Captain and the seaman was charged under Naval law.

The Captain signalled the C. in C. West Indian station concerning punishment, receiving reply to the effect that the offence was not provided for in Naval Law, but constituted a civil misdemeanour.

The case was officially reported to me as Resident Magistrate by the Captain, who requested that civil action be taken.

I reported the case to the Chief Justice of the Falkland Islands and its Dependencies and received instructions to proceed.

The summons was duly prepared, and on the next visit of H.M.S. Bigbury Bay to our anchorage, I went aboard and read and served the original of the attached

summons to Able Seaman Francis McNally, in the presence of the Coxswain and Lt. Winterbottom.

The case was heard in the Base Office, which had been transformed into a courtroom on the morning of the 14 April 1953 at eleven o'clock. Mr B Taylor acting as Clerk of the Court.

The accused was identified, oath administered and summons read.

To the question of 'do you plead guilty or not guilty' the accused replied 'guilty' but with a plea of ignorance.

I explained that we, as a scientific body, had leave to kill limited numbers of seal and penguins to feed our dogs, and to provide food for ourselves, which was necessary for the carrying on at the Survey.

Unfortunately ignorance of the Local Ordinances, could not be held as an excuse for his actions.

Lt. Winterbottom, appearing on behalf of the accused, reported that A.S. McNally's conduct throughout his period of service had never been less than good.

In judgement I awarded a fine amounting to £2, to be paid before the ship left our waters.

The case was closed the fine being paid immediately after the hearing.

Copies of signals, summons and the official receipt are enclosed herewith for your information, the third copies being held at this Base.

I have the honour to be, Sir,

Your most obedient servant,

Magistrate

Office of the Resident Magistrate
Biscoe House
Deception Island

To: FRANCIS McNALLY, ABLE SEAMAN, official number Portsmouth SS x 819413 H.M.S.
Bigbury Bay

Whereas information hath been duly laid before the undersigned, one of Her Majestys' Magistrates of the Falkland Island Dependencies, for that you did at about 5 o'clock on the afternoon of 2nd April, 1953 knowingly kill, or attempt to kill, or wound, a wild bird, to wit, a penguin, contrary to section 2 of the Wild animals and birds protection ordinance.

These are therefore to command you in Her Majesty's Name to be and appear on Tuesday the 14th day of April 1953, at 11 o'clock in the fore-noon at Biscoe House, Deception Island before the undersigned to answer to the information and to be further dealt with according to law.

Given under my hand this 13 day of April in the year of our Lord one thousand nine hundred and fifty three at Deception Island in the South Shetlands, Falkland Island Dependencies.

J.P.

Visitors Book

Deception Island

Biscoe House, Whalers Bay.

1952 onwards

In a minor way this visitors book, from the British base, helps to illustrate the friendly relationships that have existed on Deception Island between the different national bases and ships. This cordiality continued even when relationships at government level were very strained. It also shows the central and important position of Deception Island in the 1950 to 1960 era as it records many influential people concerned with Antarctic affairs. It should be clearly noted that it shows only a selection of visitors to the British base and excludes all visitors to the Argentine and Chilean bases on the island. Here both the Presidents of each country have visited their bases.

Basically the book is signed by Captains and officers of visiting Argentine, Chilean and other national ships, by the members of the local bases, by visiting scientists working with all three nations, by Norwegian whalers and a variety of other visitors. A selection includes:

H.R.H. Prince Phillip)	
Sir Raymond Priestley)	
Michael Parker)	H.M.Y. Britannia
Henry Chinnery)	January 3rd, 1957.
Anne Stevenson)	
Joan Eadine)	
John Green)	
Sir Miles Clifford)	Governors of the Falkland Islands
Sir Edwin Arrowsmith)	and Dependencies.

The Chief Constable of the Falkland Island police force.
Mr Spivey. The administrative officer from South Georgia.

- *Edmund Stockins, Chaplain to the Chilean Antarctic Fleet
- *Captain de Navio Fernando Tisne, Chilean Commander of Antarctic Fleet
- *Brigadier General Gava Eastman, Chilean Air Force.
- *Col. Musso, Chilean Army.

* These plus other officers and ratings attended a memorial service for the late King George VI on the 5 February, 1952. The service was conducted by Father Stockins, Chaplain to the Chilean Fleet.

De Francisco Bohn, Professor of Concepcion University.
 Captain MacDonald) U.S. Icebreaker 'Glacier'
 Captain Porter)
 Mr Cushman Murphy, Ornithologist.
 Mr Bishop, U.S. Observer on San Martine
 Mr Crawford Brooks, American observer 1956-7.
 Captain Möller, of the Salveson Whale hunter 'Sondra' in connection with the
 wreck of the Southern Hunter at the entrance.
 Sir Vivian Fuchs
 Captain Johnston, R.R.S. John Biscoe
 Major Edwards. R.M. i/c Marine detachment on the island.
 The Bishop of Punta Arenas. Oscar Peiochet de la Barra.

It also includes the names of many associated with the Falkland Island
 Dependencies Survey (later the British Antarctic Survey).

Messages which indicate the friendly local relations include (1960-61
 season).

"On my first visit to this Base I cordially greet everybody wishing
 that this traditional friendship will continue always."

2nd January 1961
 Base Leader, Chilean Base.

Mario Rojas Flores
 O.A.P. Band (A) F.A. de CH.

"I am leaving Deception Island with the best memories of my good
 friends of Biscoe House."

January 1961

Fernando Mansilla Salas
 Leader of Chilean Base, P.A.C. Chilean Air Force

"Thanks to the men of Base B for putting me up while out chopping
 rocks."

January 16, 1961

Andy Lenk, Dept. of Geology
 University of Wisconsin.

"My agradecid far habernos recibido en al 'Deception Island Working
 Mans Club'"

24 February 1961.

A S Porretti
 Captain Bahia Aquirre (Argentina)

"Best wishes".

11 March 1961.

N A Copeman
 C. in C. South Atlantic.

REF:

From notes taken on Deception Island 1960-2 by the author. It is not known
 what has happened to this book since the 1967-1969 eruptions but it is hoped it
 is in material sent from Port Stanley to the new headquarters of the British
 Antarctic Survey in Cambridge (Personal communication, Miss Todd, 1977).

DECEPTION ISLAND

Base Members of British Base

Wintering Parties

1944-5

1945 Winter

W R Flett, B.Sc. Geologist, i/c party
 Sub.Lieut. G Howkins RNVR Meteorologist
 N F Lather, Wireless operator
 C Smith, Leading cook.

1945-6

1946 Winter

Sub.Lieut. A Reece, RNVR. Meteorologist, i/c party
 T Donnackie, Wireless operator
 C Smith, Leading cook. RN.
 S Bonner

1946-7

1947 Winter

Sub.Lieut. H P Featherstone, RNVR. Meteorologist i/c party.
 Telegraphist (T.O.) D Crutchley, Wireless Operator.
 S Newman
 B Reive

1947-8

1948 Winter

J S R Huckle
 F J Buse
 E T Comings
 J R Ewer
 A R Massey

1948-9

1949 Winter

A G Scadding i/c and meteorologist
 J W Knox, Wireless operator
 E C Gutteridge, General Assistant
 P Biggs, General Assistant

1949-50

1950 Winter

G Stock, Officer in charge and meteorologist
 J W Knox, Wireless operator
 W G Richards, General Assistant
 P Peck, General Assistant

1950-51

1951 Winter

J R Green, Officer in charge
 A N Walton, Meteorologist

A W R Hewitt, Meteorologist
W Calder, Wireless Operator.

1951 Winter

1951-52

1952 Winter

R A Lenton, i/c and Radio operator
A N Walton, Meteorological observer
W Calder, Radio operator
E M P Salmon, meteorological observer

1952-3

1953 Winter

E D Stroud, Captain R.N. i/c Meteorological observer
R A Todd-White, Meteorological assistant (senior duties)
R A VERNY, Meteorological assistant
B G Ellis, Meteorological assistant
A F Christie, Radio operator
A H Farrant, Diesel mechanic.

1953-4

1954 Winter

I W N Clarke, Officer in charge and meteorological observer.
D J George. Meteorological assistant (senior duties)
F A Hall, Meteorological assistant
A H Farrant. Diesel electric mechanic
B Taylor, radio operator.

1954-5

1955 Winter

G E Hemmen, Officer in charge and meteorological observer.
D C G Munford, wireless operator mechanic.
D Parsons. Meteorological assistant (Senior duties)
L J Shirtcliffe. Meteorological Assistant
J E Smith, diesel electric mechanic.

1955-6

1956 Winter

C H Palmer i/c. Wireless operator mechanic
R P K Clark, meteorological observer
R E Cooper, diesel electric mechanic
B Gilpin, Meteorological assistant
W McDowell, Meteorological assistant
P Phipps, meteorological observer

1956-7

1957 Winter

J Paisley, Officer in charge and meteorological assistant
R D Clements, diesel electric mechanic
J E Dagless, meteorological assistant
C Johnson, radio operator mechanic
P O White, Meteorological assistant
A J Witcombe, meteorological assistant (Senior duties)

1958 Winter

1958 Winter

J E Dagless, Officer in charge and meteorological assistant
R D Clements, diesel electric mechanic
K V Gibson, meteorological assistant
P J Hodgkinson, meteorological assistant
V O Neill , radio operator mechanic
P R Rowe, radio operator mechanic
A J Witcombe, meteorological assistant

1959 Winter

1959 Winter

P J Hodgkinson i/c. Meteorological assistant
I T Jackson, senior meteorologist
E B Jones, radio operator mechanic
M D Kershaw, diesel electric mechanic
P R Rowe, radio operator mechanic
P L Wordall, meteorological assistant

1959-60

1960 Winter

I T Jackson. i/c and Meteorologist
G F Fitton, wireless operator mechanic
R P Matthews, Senior Meteorologist
M H Tween, diesel electric mechanic
B P Westlake, meteorologist

1960-61

1961 Winter

J B Killingbeck, i/c and general assistant
D S Baron, meteorologist
P R Bond, pilot
R Brand, aircraft fitter
J E Ferey, Meteorologist
B Hodges, General assistant
G F C Kyte, meteorologist
C Lehen, radio operator mechanic
R Lord, pilot

T Summer, Aircraft fitter
D Tegerdine, diesel electric mechanic

1961-2

1962 Winter

E J Chinn, Leader
G F C Kyte, meteorologist
M J Cousins, meteorologist
B Lynch, meteorologist
M J Byrne, carpenter
P R Bond, senior pilot
W D Lincoln, pilot
R T Brand, aircraft fitter
K G S Boulter, aircraft fitter
J H Sutherland, carpenter
R F Lewis, wireless operator
D M Bridgen, wireless operator
T H Tallis, mechanic

1962-3

1963 Winter

B Lynch, Leader. Meteorologist
H D Ashworth, meteorologist
G C Barrett, technician
D A Blair, pilot
A Bottomley, meteorologist
W Gilchrist, wireless operator
R F F Lewis, wireless operator mechanic
W J Pennock, aircraft fitter
G W Stutt, pilot
J E Tait, mechanic - dieselelectric

1964

Enterprise 21

L V Mole, leader. Meteorologist
G C Barrett, technician
C A Howie, meteorologist
J D S Leigh, radio mechanic operator
J McDermott, aircraft fitter
W J Mills, pilot
D S Parnall, wireless operator mechanic
E J Skinner, pilot
M E Waer, meteorologist
J M Wilson, diesel mechanic

1965

1965 Winter

C D Walter, leader. Meteorologist
P G Bird, meteorologist
J Brett, pilot
B M Chappel, meteorologist
H A Field, aircraft mechanic
W Geddes, radio mechanic
G L Hodson, diesel electric mechanic
J McDermott, aircraft fitter

1966

1966 Winter

C D Walter, meteorologist
J Barlow, meteorologist
R T Brand, RAF Engineer
R W Burgess, RAF pilot
A B Coggles, RAF Engineer
G M Jones, diesel mechanic
P G H Myers, Meteorologist
M Pierbrick, carpenter
M T Whitbread, radio

1967

1967 Winter

P G H Myers, Meteorologist
S M Norman, meteorologist
+ 2 pilots
2 aircraft engineers
1 radio operator
1 diesel mechanic

1967

Eruption

Close of Base

147 Wintered.

BIRDS AT DECEPTION

Adélie Penguin	<i>Pygoscelis adeliae</i>
Chinstrap Penguin	<i>Pygoscelis antarctica</i>
Gentee Penguin	<i>Pygoscelis papua</i>
Macaroni Penguin	<i>Eudyptes chrysolophus</i>
Brown Skua	<i>Catharacta skua</i>
Dominican Gull	<i>Larus dominicanus</i>
Antarctic Tern	<i>Sterna vittata</i>
Sheathbill	<i>Chionis alba</i>
Giant Petrel	<i>Macronectes giganteus</i>
Snow Petrel	<i>Pagodroma nivea</i>
Cape Pigeon	<i>Daption capensis</i>
Black bellied storm Petrel	<i>Fregetta tropica</i>
Wilson's Petrel	<i>Onceanites oceanicus</i>

Seals

Leopard Seal	<i>Hydrurga leptonyx</i>
Weddel Seal	<i>Leptonychotes weddelli</i>
Elephant Seal	<i>Mirounga leonina</i>
Crabeater Seal	<i>Lobodon carcinophagus</i>
Fur Seal (1962)	<i>Arctocephalus tropicalis</i>
Ross Seal?	<i>Ommatophoca rossi</i>



Plate I. Aerial view of Deception Island, 1956
(PRIESTLEY/FIDASE, BAS)



Plate 2. Normal view. Low stratus over
Deception Island and Livingston Island.



Plate 3. Neptunes Bellows, Whalers Bay and Kroner Lake.



Plate 4. The deceptive entrance. It lies to the right of rigging.



Livingston Island from Cathedral Crags. It lies only 18 km (11 miles) from Deception Island. The main sealing beaches were on this island.



Plate 5. Winter fumaroles and frazil ice, Whalers Bay, 1961.



Plate 6. Ashlayers in snout of Mt Pond Glacier, Port Foster, September 1961.



Plate 7. British Base, 1961. Showing factory, cemetery, magistrates hut, aircraft and hanger. Port Foster frozen. September 1961. "Hot spots" on Kroner Lake and Whalers Bay.



Plate 8. Hektor Whaling Station and FIDASE hunt, Winter 1961.



Plate 9. Whalers Bay in summer 1961. Runways and pre-1912 shoreline visible.



Plate IO. Pendulum Cove and Telefon Bay from Chilean Base. The site of the 1967 and 1970 volcanic disturbances. Beaches steaming.



Plate II. President Aguirre Cerda (PAD) the Chilean Base, Pendulum Cove in September 1961. Destroyed February 1969. (British dog team)



Plate I2. Primero de Mayo, the Argentine Base, Fumerole Bay. a) The Base huts. b) Signs of administration. c) Punta Ninfas 1961, taking on water at "Biscoe Well".

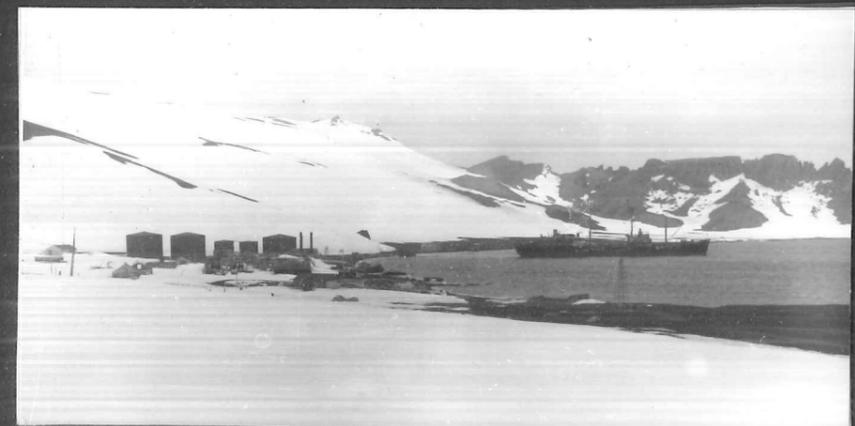




Plate I3. International cooperation at Deception Island. Memorial service to his late Majesty King George VI 5 February 1952. Conducted by Father Stockins of Chile and attended by Captain de Navio Fernando Tisne, Chilean Commander on board Angamos and other Officers and Ratings of Chilean ships.

BAS PHOTO.



Plate I4. Sheltering in Whalers Bay 1961. The RRS John Biscoe, RRS Shackleton and HMS Protector.



Plate 15. Norwegian Cemetery. Whalers Bay, 1961.

WHALEERS FROM TOMSBERG AND SANDVIK. SEE APPENDIX



Plate 16, A. Panorama from slopes of Deception Island. Looking towards Trinity Island and the Antarctic Peninsula, September 1961.

DISTANCE ACROSS TRANSVERSE STRAIT - 100 KM.



Plate 16, B. 250 km of coastline as seen from slopes of Mt Pond.

DISTANCE ACROSS BANNSFIELD STRAIT 100 KM.

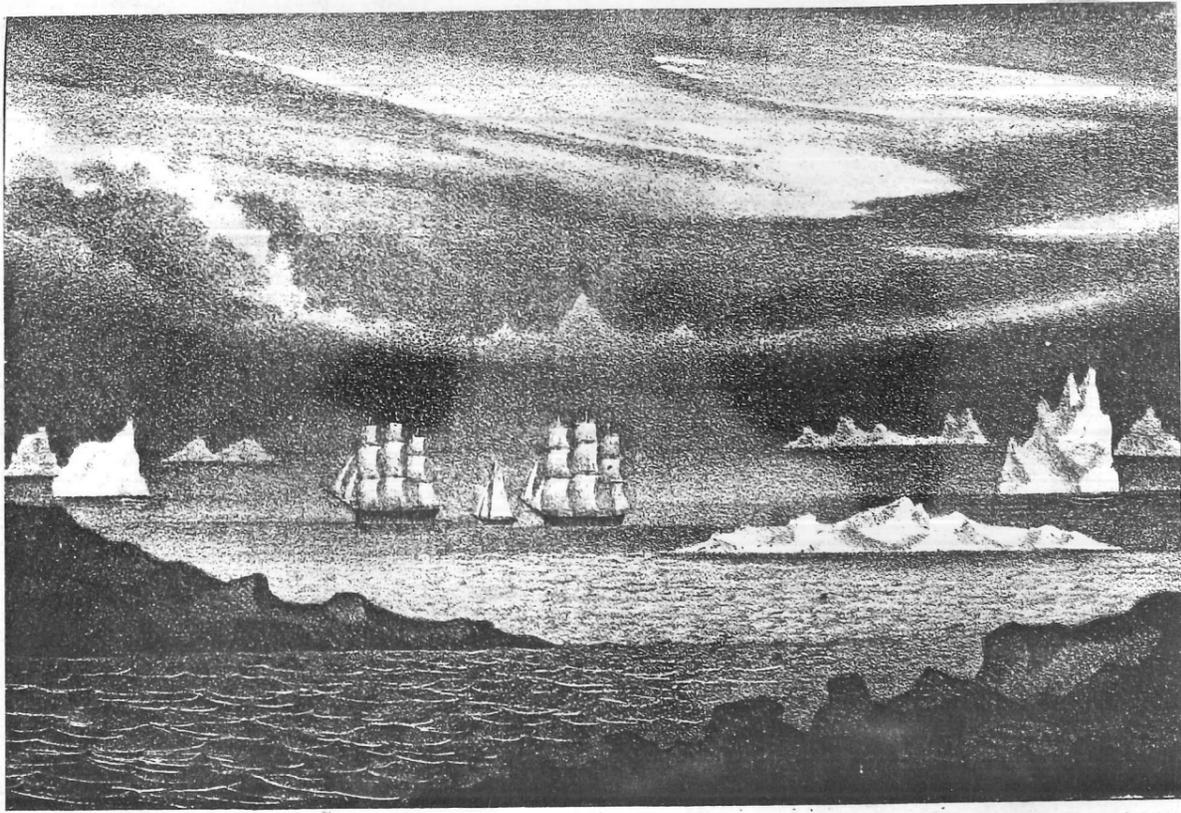
SEALING



Plate 17. First Antarctic painting by Lt E N Kendall, 1829. "Sea leopards at the island of Deception."



Ref: H.M.S. Chanticleer. Capt. Henry Foster, 1829. Remarks and observations. No 331. Memoir on South Shetlands to accompany chart. Admiralty, Hydrographic Dept, Taunton. O.D.39



Letter of Bellings to Scott NY
PALMERS LAND as seen from the SOUTH SHETLANDS.

PLATE

Plate 18. Meeting of Palmer and Bellingshausen 1821. "Palmer's land as seen from the South Shetlands." (FANNING, 1834)

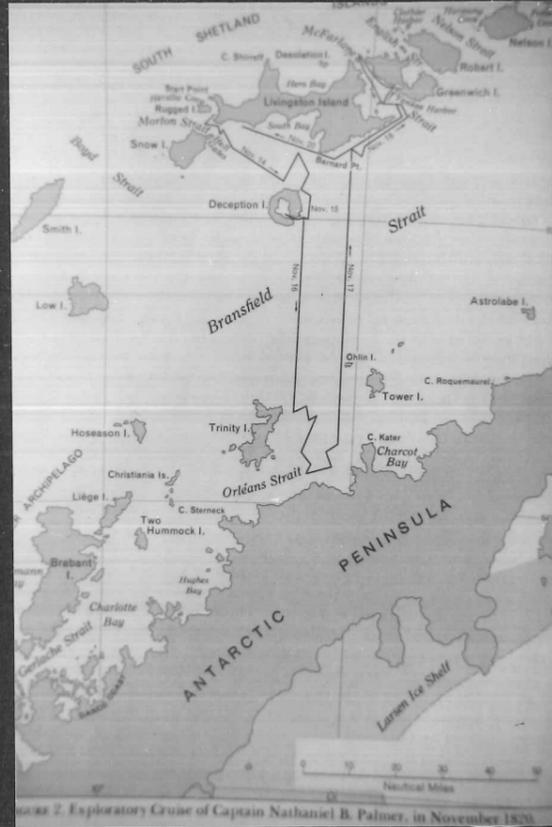


Plate 19, A. Track of the exploratory cruise of Captain Nathaniel Palmer from Deception Island, November 16, 1820. (From: Bertrand, 1971. Americans in Antarctica)

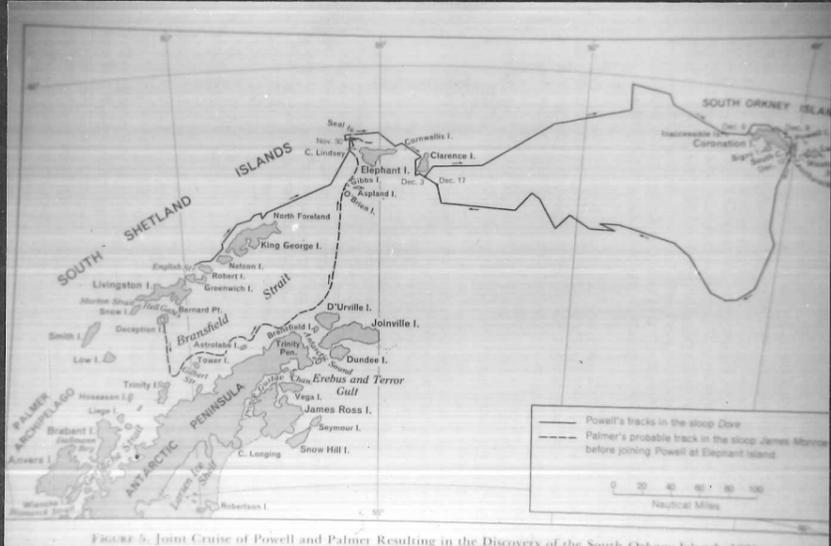


Plate 19, B. Track of Palmer and Powell on their discovery of the South Orkneys, 1821. Note Palmer left from Deception Island. (BERTAND, 1971)

The role of Deception Island for chart making.

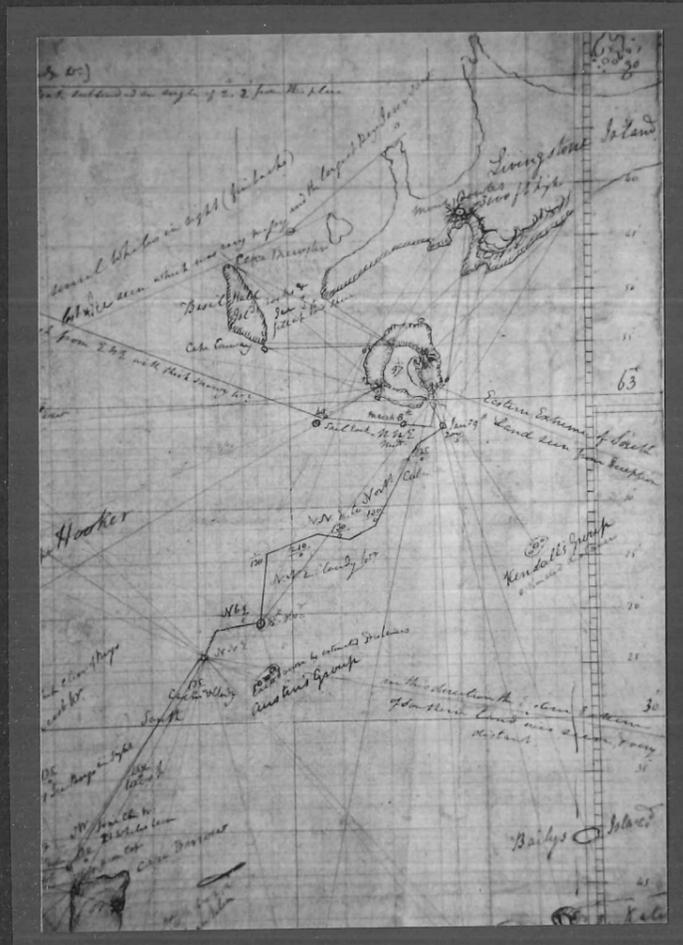


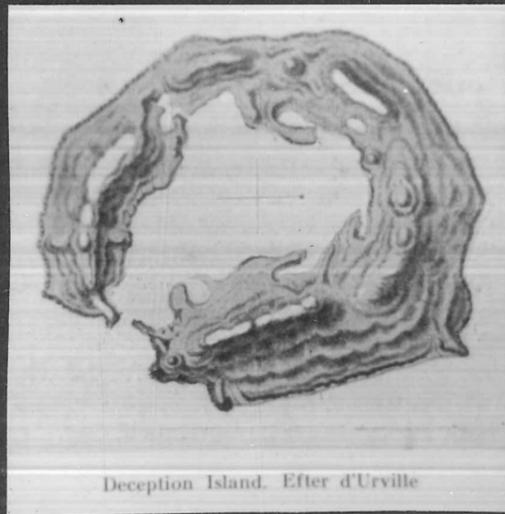
Plate 20 Deception Island as a centre for chart making. Copy of original field sheet of Foster and Kendall, 1829.



Plate 21. The Chanticleer in Pendulum Cove, 1829. (Webster, 1834)



Plate 22. The first map of Deception Island by Lt. E.N. Kendall, 1829. (J. of R.G.S., 1832) (KENDALL, 1832)



Deception Island. After d'Urville

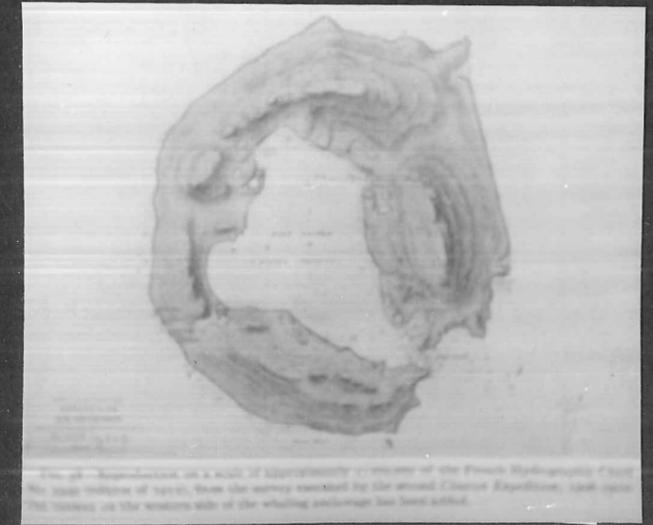
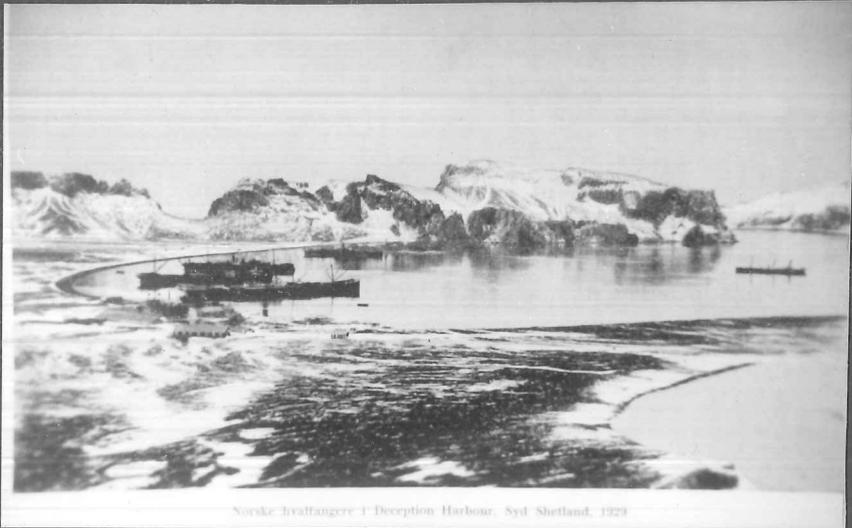


Plate 24. Deception Island after Charcot.

Plate 23. Deception Island after d'Urville.

Whaling at Deception Island.

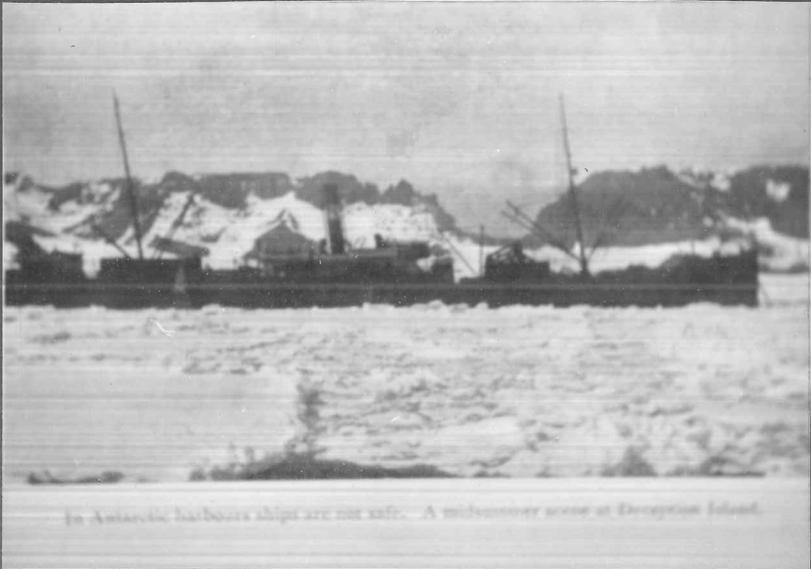


Norske hvalfangere i Deception Harbour, Syd-Shetland, 1929



EKSPANSJONEN 1927—31

Fra Deception 1929—30, en av de siste sesonger den ble brukt som stasjon for kokeriene. Fra venstre «Torodd» med «Norvegia» ved siden, «Maudie», «Svend Foyn», «Orn II», «Hektorias»



In Antarctic harbours ships are not safe. A meltemeer scene at Deception Island.

Plate 25. Whaling at Deception Island. Use of harbour and wells on beach. Stern to shore mooring.

(TANNESSON, 1967-)
(AASAK, 1930-50)



Fjellpart, Deception Harbour

Plate 29. Whale carcasses floating below Cathedral Crags, Whalers Bay.



Plate 30. Rotting carcasses and bones, Whalers Bay.



Hvalkirkegården på Deception. I midten A/S Hektor's landstasjon.

(TANNESSON, 1967-
AA6AA23, 130-50.)



Plate 31. Remains of sheds covering watering wells.



Plate 32. Wreck of Southern Hunter, Entrance Point, 21st December, 1956.



Plate 33. The Queen of Bermuda and HMS Carnarvon Castle. (JONES, 1984) AND S.P.R.I. PHOTOGRAPHIC COLLECTION. P.50/26/1-84.



Operation Tabarin



Plate 34. SS Eagle refuelling from oil barge, Deception Island 1944/5.



Plate 35. 1952. A period of political unrest - National and International. Collins Point Light.



Servicing Collins Point light. 1961. Navigation lights become political symbols of administration. There were three at Deception Island at one time.

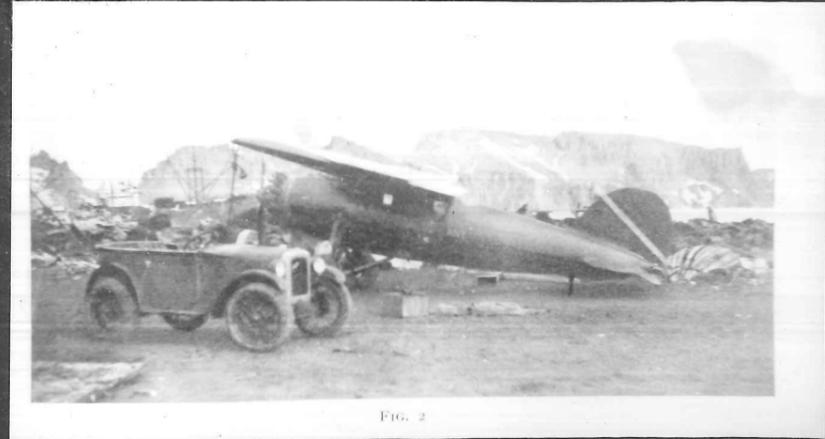


FIG. 2

Plate 36. First flight in Antarctic. Wilkins-Hearst Lockheed Vega monoplane, San Francisco and Austin 7 at Deception Island. (WILKINS, 1929, 1930)

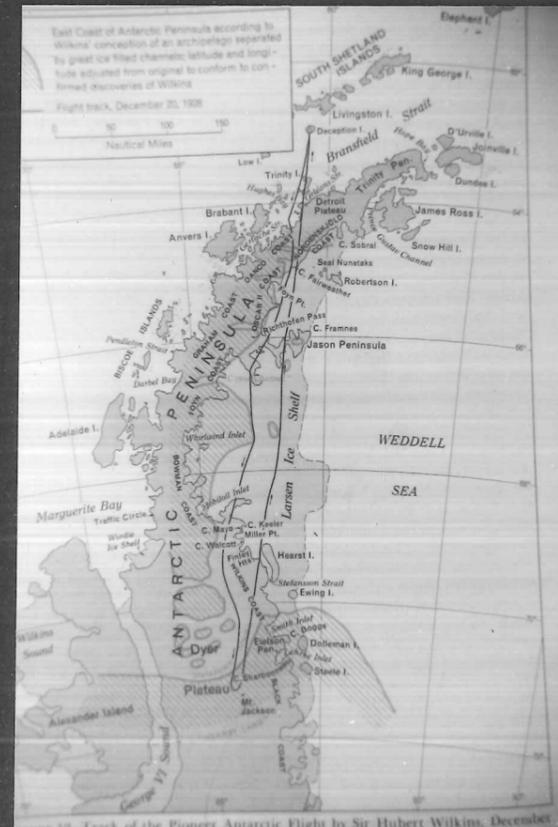


Plate 37. Track of exploratory flight from Deception Island. 20 December 1928. (BERTRAND, 1971)



Plate 39. FIDS-BAS Flying. Use of beach for assembly.



FIG. 1



FIG. 2



FIG. 5



Plate 38. The Wilkins-Hearst Expedition. Deception Island 1828-31.

(WILKINS, 1929, 1930)



Plate 40. Test flying. Ski-wheel landing gear.



Plate 42. Take-off on the Hubert Wilkins runway.



Plate 41. Aircraft wintering and beginning of aircraft hanger, 1961.

VOLCANIC DEVELOPMENTS



Plate 43. The 1967 eruptions. Creation of new island. Telefon Bay.

PHOTO: F. COLE, BAS.



A.H. BELLAAS, AAS. S.40



Plate 44. 1967 eruptions. Telefon Bay.

PHOTO: P. WAINWRIGHT, BAS S.58



Plate 45. Result of flood and lahar damage, British Base. February 1969. Shows loss of cemetery.

PHOTO: H. TONES, BAS



Plate 46. Rift in Mt Pond ice. 1969 eruption. Above Pendulum Cove. Site for detailed stratigraphic studies.

PHOTO DR.P.E. BAKER, BAS.

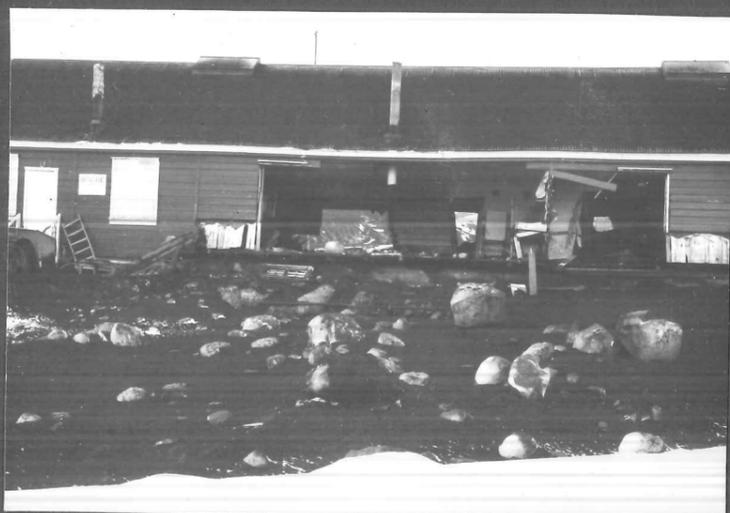


Plate 47. Damage at British base hut. February 1969.

WILDLIFE



Plate 48. Wildlife at Deception Island. A tourist paradise? Baily Head Rookery. December 1969.



Plate 49. Macaroni Point. November 1961.
LIVINGSTON ISLAND IN BACKGROUND.



Plate 50. Leopard Seals at Baily Head.