

Bibliographic numerals given with historical summaries refer

to the text section headed, "Bibliographic Sources." Bold-

face numerals indicate sources of expedition data given on

Ice shelf limits on the maps are not necessarily in accord with

conditions at the time of the expeditions shown.

NOTES

(31) 1902-1904 Scotland (Scottish National Antarctic Expedition) Leader: Dr. William S. Bruce Sponsors: Coats family and other private donors Ship: Scotia Purpose: Scientific investigation Bibliography: 28, 29, 43, 62, 143, 171, 213, 215, 255

The Scotia sailed for Antarctica in November 1902. She stopped at the Falkland Islands, passed the South Orkney Islands and entered the Weddell Sea, which was to be the focus of the expedition's research. Magnetic, meteorological, and oceanographic observations were made until encroaching pack ice at 70°25'S, 17°12'W forced the party to return to the South Orkney Islands. Here exploratory cruises were made among the islands; observations made on these cruises were used to compile charts of the region.

From April 1 to October 31, 1903, while the Scotia was frozen in the ice of Scotia Bay, Laurie Island, hourly meteorological observations were made. By November 1, 1903 a land station had been established for a small party which was to remain and continue meteorological observations while the Scotia went to Buenos Aires for supplies. When Bruce returned in February 1904, he brought with him an Argentine party to take over the meteorological

The Scotia and her party then made a second, and more southerly, thrust into the Weddell Sea. They became the first to sight the shore of Coats Land; they dredged up sea-floor sediments of types which 34 1905-1906 indicated that their source was a continental landmass; they carried out oceanographic measurements; and they collected specimens of marine

32 1903-1905 France (French Antarctic Expedition) Leader: Dr. J.-B. Charcot Sponsors: Charcot, government grant, and private con-

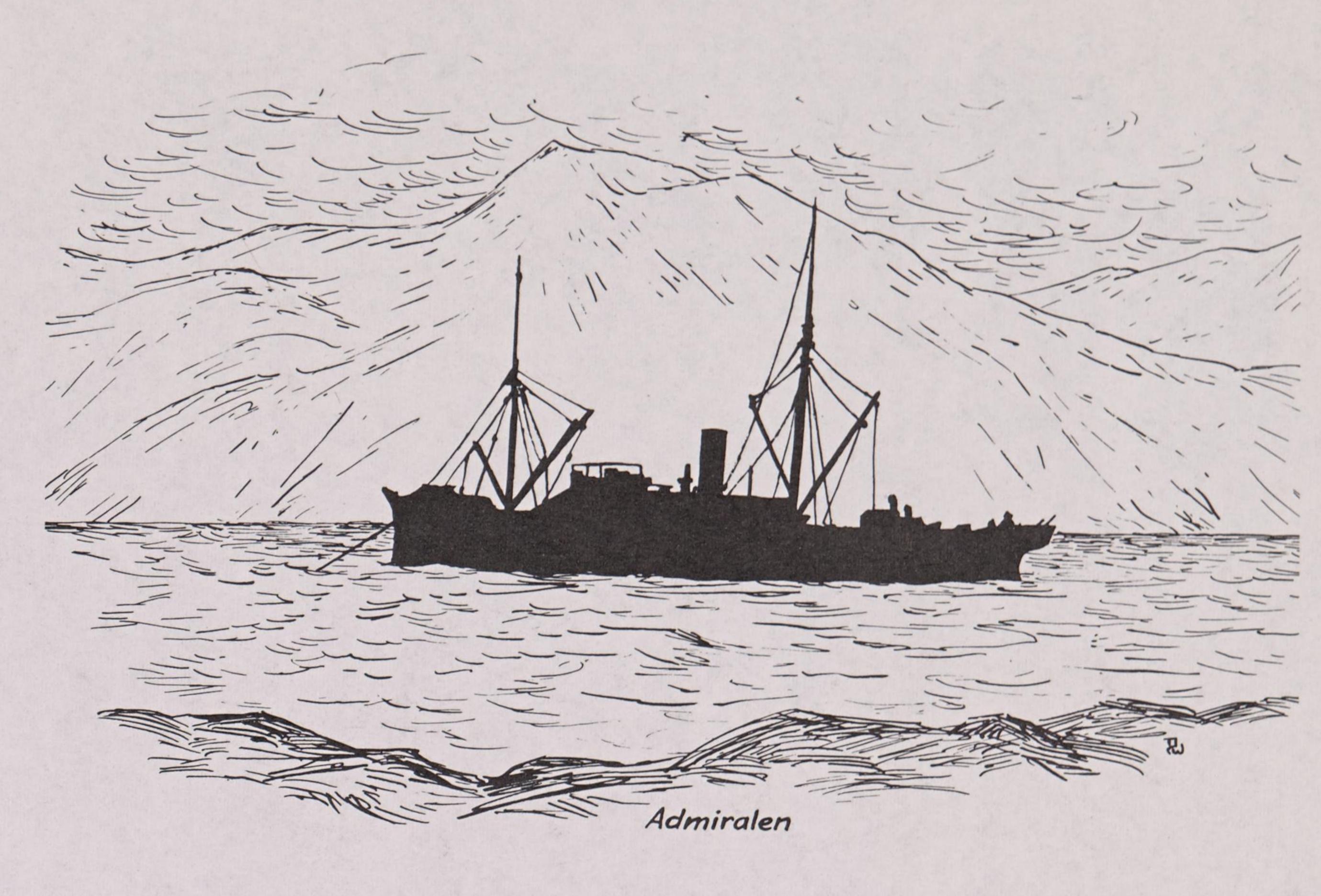
Ship: Français Purpose: Rescue of Nordenskjöld expedition and scientific investigation

Bibliography: 22, 46, 108, 143, 214, 250

When Charcot reached South America he found that Nordenskjöld's expedition had already been rescued by the Uruguay, but he determined to continue to the Antarctic. After consultation with Nordenskjöld, whom he met at Buenos Aires, Charcot decided to explore the west coast of the Antarctic Peninsula. The Français sailed via Cape Horn to Smith Island of the South Shetlands, where she arrived in February 1904. From there she sailed southwestward, and the party charted islands in the Palmer Archipelago, and explored the Gerlache Strait. The party then landed at Wiencke Island. After several attempts to proceed farther south to the Biscoe Islands, the Français returned to winter at Booth Island. In January 1905 Charcot finally reached the Biscoe Islands and sailed along a body of land which he called Loubet Land, after the French president. This later proved to be the northern end of Adelaide Island, then thought to be a small island farther south. Before sailing northward the party sighted the northern end of Alexander Island, then thought to be part of the mainland and known as Alexander I Land. Extensive charting was an important contribution of this expedition. Hydrographic research included studies of tides and of seawater and ice. Measurements were made of the earth's magnetic field; geological and botanical specimens were collected; and extensive collections of marine organisms were made.

33 1904 Argentina Leader: Cdr. Ismael F. Galindez Sponsor: Argentine government Ship: Uruguay Purpose: To assume operation of meteorological station on Laurie Island Bibliography: 22, 185, 227, no map

When William S. Bruce left his meteorological station on Laurie Island in the South Orkney Islands (see summary of Scottish expedition of 1902-1904) the Argentine government accepted the responsibility for the station at Bruce's invitation, and Galindez was sent to take command of it. Since then, this station, which the Argentines named Orcadas, has been kept in continuous operation; the only Antarctic meteorological station to have this long an unbroken record.



Manager: Alexander Lange Ship: Admiralen Purpose: Whaling Bibliography: 13, 21, 51, 111, 134, no map

The invention of the harpoon gun and the development of the floating factory revived the whaling industry in the Antarctic. The factory ships made shore-based stations unnecessary; although the ships still had to anchor in a harbor, they were able to process the whale at a site in the vicinity of the whaling grounds, thus making the operation more economical. Admiralen was the first floating factory, and the first Norwegian whaling expedition to the Antarctic. With two catchers, Hauken and Ornen, she visited the South Shetland Islands, operating from Admiralty Bay, King George Island.

Great Britain (British Antarctic (35) Expedition)

Leader: Lt. Ernest Shackleton, RNR Sponsors: Sir William Beardmore, the Misses Dawson-Lambton, the Australian and New Zealand governments, and

Purpose: To reach the Magnetic and Geographic South Poles, and to carry on scientific research Bibliography: 22, 27, 43, 157, 162, 193, 217, 218, 243

Ship: Nimrod

Shackleton had planned to use a base on McMurdo Sound, and had hoped to occupy Scott's camp at Hut Point, the southernmost tip of Ross Island, as a starting point for an expedition to the South Pole. But when Scott announced plans to use this base himself, Shackleton changed his plans. He decided to set up a base on Edward VII Peninsula, or on the ice shelf to its west. Evidence of recent loss of ice from the edge of the ice shelf made it seem unwise to set up camp there, so an attempt was made to continue eastward to Edward VII Peninsula. Close pack ice with heavy concentrations of icebergs prevented the party from reaching this objective, and they retreated to Ross Island where they established a camp at Cape Royds. During the first Antarctic summer short geologic trips were made. Work in meteorology centered primarily on temperature and wind observations. Biological studies were made, principally of

fresh-water organisms, which were found to be abundant despite the brief period during which the lakes near Cape Royds were not frozen. Oceanographic studies included continuous observations of tides, and seiche oscillations. A motor-driven vehicle was used to establish provision depots for the major journeys which took place during the summer of 1908-1909. One party explored the mountains along the Ferrar Glacier, and visited the dry valley nearby. A second party under Shackleton tried to reach the South Geographic Pole via the Beardmore Glacier. At 88°23'S, Shackleton's party was forced to retreat because of a lack of rations. A third party under Prof. T. W. Edgeworth David set out to find the South Magnetic Pole. They traveled northward from Cape Royds to the Drygalski Ice Tongue, where they ascended Larsen Glacier, just north of the larger glacier which now bears David's name, and proceeded northwestward until they reached the South Magnetic Pole-then located at 72°25'S, 155°16'E. Prof. David and his party were the first men to do so.

(36) 1908-1910 France (Second French Antarctic Expedition) Leader: Dr. J.-B. Charcot

Sponsors: Government grant-in-aid with support of public and private research and government agencies and private individuals

Ship: Pourquois-Pas?

Purpose: Scientific research, geographic discovery, and

Bibliography: 22, 44, 45, 47, 101, 108, 119, 248

Charcot returned to the Antarctic to continue the scientific research and systematic charting of the Palmer Archipelago which he had begun four years earlier. His winter station was set up on Petermann Island, close enough to his earlier station at Booth Island to compare data from the two locations. Geographic discoveries during Charcot's numerous excursions along the Antarctic Peninsula included Marguerite Bay, Fallières Coast, and 'Charcot Land.' Admiralty Bay of King George Island, Deception Island (on which extensive scientific studies were made), and Adelaide Island were charted in detail. The map resulting from the exploration shows the name Loubet Land reassigned to a coastal area on the Peninsula (see summary of the 1903-1905 Charcot expedition). The scientists with the expedition made valuable glaciological studies; meteorological observations were carried out at the winter station and on all voyages. Specimens were collected of a great many species of birds, parasites, marine invertebrates, and marine mammals. Charcot's contributions also included some technical innovations in the safety and comfort of man's Antarctic life. Electric lights were available in the ship laboratories and in the land stations; food and good wine were plentiful and carefully stored; a motor boat was used for reconnaissance missions; and a searchlight installed on the Pourquois-Pas? greatly facilitated the return of exploratory parties.