

SOME RECENT GEOGRAPHICAL DISCOVERIES IN THE ANTARCTIC REGION.

Note by M. CH. LALLEMAND.

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I have the honour to direct the attention of the Academy to the very interesting results of the investigations carried out from 1927 to 1931, around the Antarctic continent, by some expeditions organised at the expense of Mr. Lars CHRISTENSEN, one of the principal Norwegian whaler owners. These results have allowed a chart to be compiled for the first time, representing the general contour of the continent from 20° W. Long. to 74° E. Long., *i.e.*, to the south of Africa and the Indian peninsula. They constitute the most important addition to world cartography that has been made during the last ten years.

For four successive years, during the southern summer, Mr. Lars CHRISTENSEN sent one of his ships, the *Norvegia*, with the necessary staff and outfit, to explore, from a scientific point of view as well as from that of the geographical distribution of the great Cetaceans, the Antarctic sectors to the south of America, and to the east and west of the group of islands which is now the most productive centre of the whaling industry.

During their first expedition (1927-1928), owing to an accident, the Norwegians were obliged to limit their activities to Bouvet Island, but to make up for this, during the second expedition (1928-1929), they extended their investigations into the Southern Pacific as far as 140° W., compiling a chart of the little Peter I Island on which, until then, no man had set foot, and reaching, in long. 110°40' W., the highest latitude attained in that sector, *viz*: 71°11' S.

During the two following summers (1929-1930 and 1930-1931), the *Norvegia* explored the regions of the Antarctic to the southward of Africa which, lying behind thick ice-packs, have remained totally unknown.

With this object in view, two aeroplanes were carried and Captain RIISER-LARSEN, one of the Norwegian Naval Air Service, assisted by his comrade, Commander LÜTZOW-HOLM, was put in charge of the expedition.

On the 22nd December, 1929, the *Norvegia* having been held up by ice off Enderby Land, one of the two strips of coast known in this quadrant, the airmen flew over the ice-pack and landed on Enderby Land. In the course of later aerial reconnaissances, they discovered a second segment of the Antarctic continent (Queen Maud Land), further to westward; then a third, between 9° W. and 16° W. (Princess Martha Land), which is connected with the coasts already known on the eastern shore of the Weddell Sea.

During the summer of 1929-1931, also from an aeroplane, Captain RIISER-LARSEN determined the outline of a fourth coast, between 24° E. and 39° E. (Princess Ragnild Land).

Before this last exploration was carried out, the *Norvegia*, under the command of Major Gunnar ISACHSEN, had circumnavigated the Antarctic continent on a course in the vicinity of latitude 60° S.

During the same summer, the ice conditions having been exceptionally favourable in the South Atlantic and in the southern Indian Ocean, the Norwegian whalers were able to make interesting geographical observations; thus between 19th and 25th January, 1931, they discovered, eastward of 67° E., a new piece of the Antarctic continent to which they gave the name of Lars CHRISTENSEN.

In 1929-1930, the British explorer, Sir Douglas MAWSON, surveyed two previously unknown coasts, eastward of Enderby Land: the first extending as far as 67° E.,¹ which he called Robeson Land, after the patron of his expedition and the second further east, between 74° E. and 80° E. (Princess Elizabeth Land).

The whole of this immense sector of the Antarctic continent reconnoitred by the Norwegians is entirely covered by uneven inlandsis which is high on Queen Maud Land, Enderby Land and Lars Christensen Land. In one of these, in 66°20' S., 58°34' E., it reaches an altitude of 3300 m. (10,830 ft.).

In 74° E. two active volcanoes were observed.

In the course of their voyages in the South Atlantic and the South Pacific Oceans the Norwegian expeditions again proved that Thompson, Lindsay, Nimrod and Dougherty Islands, and the Chimneys and Pagoda Rocks are non-existent. According to Major F. ISACHSEN, capsized bergs of "blue ice" which, in cloudy weather, assume a deceptive blackish colour, have been mistaken for land.

During all the cruises of the *Norvegia*, numerous oceanographical stations, which will shed new light on bathymetry and on oceanic circulation in the southern polar zone, were made.

