

OBITUARY

Rear-Admiral RICHARD EVELYN BYRD was born in Virginia on 25 October 1888 and died in Boston, Massachusetts, on 11 March 1957. He received his commission in the United States Navy in 1912 but was compelled to retire, on account of an old leg injury, in 1916. He was recalled when the United States entered the First World War and received training as a pilot. During the war he held staff appointments in Canada and in the United States.

In 1925 he commanded the Naval Flying Unit which accompanied the Macmillan expedition to west Greenland. The aircraft used were three Loening Amphibians and a number of successful flights were made over Ellesmere Island and the Greenland ice sheet. His next objective was the North Pole, and in 1926 he organized a private expedition to Kongsfjorden in Spitsbergen. It arrived there to find preparations almost completed for the Amundsen–Ellsworth–Nobile expedition to the North Pole, and the dirigible *Norge* on her way north to Kongsfjorden. The successful flight was made by Byrd and Floyd Bennett in a Fokker three-engine monoplane on 9 May 1926. Byrd had, since 1918, been planning a flight across the Atlantic Ocean, but a series of vicissitudes prevented this until 1927. With four companions he made the third non-stop flight from the United States to Europe, crash landing in the sea at Ver-sur-Mer, France, on 29 June.

Byrd's already established reputation made it possible for him to contemplate larger ventures and, in 1928–30, he led a private expedition to the Ross Sea area of Antarctica. From his base at "Little America" in the Bay of Whales a series of exploratory flights were made. The Rockefeller Mountains, Edsel Ford Ranges and Marie Byrd Land were discovered from the air, and part of the Queen Maud Range was mapped from both ground and air. On 29–30 November 1929 Byrd took part in the first successful flight over the South Pole. In 1933–35 he led a second private expedition to the Bay of Whales. An extensive scientific and exploratory programme was carried out from an enlarged "Little America". The eastern margin of the Ross Ice Shelf was charted during sledge journeys to the Edsel Ford Ranges, Rockefeller Plateau and Queen Maud Range. Geological parties visited the Queen Maud Range and the polar plateau. Seismic soundings were made on the Ross Ice Shelf and the Rockefeller Plateau. During the winter of 1934 he narrowly escaped death from gas poisoning while manning an advance weather station alone, 100 miles south of "Little America". In 1939–41 he commanded the United States Antarctic Service Expedition, during which one party wintered at "Little America" and another at Nyen Fjord in Marguerite Bay, Graham Land. Extensive explorations by air were made from both bases, including three flights south over the Amundsen Sea. Important sledge journeys were made in Graham Land towards King George VI Sound and the south-western coast of the Weddell Sea; the earlier discoveries in Marie Byrd Land and the Ross Ice Shelf were greatly extended. A comprehensive scientific programme was carried out from both bases. Byrd returned to Antarctica in 1946–47 in command of the United States Navy Antarctic Expedition, Operation "High Jump", the largest expedition to visit the continent. The twelve ships, divided into three groups, sailed round the whole continent carrying out an extensive programme of air reconnaissance and photography. The expedition did not winter in Antarctica. In 1955 Byrd was appointed Officer-in-Charge of the United States Antarctic Programs and held the appointment until his death. His last expedition to Antarctica was as commander of the United States Navy Expedition "Deep-freeze I", 1955–56, in connexion with the United States programme for the Inter-



REAR-ADMIRAL RICHARD E. BYRD, U.S.N.

(Facing p. 54)

national Geophysical Year. A new "Little America" was established in Kainan Bay, and enormous quantities of stores and equipment landed for use during the International Geophysical Year. A number of long-distance flights were made, including one to the Weddell Sea and back, non-stop.

Byrd was a man of many abilities, of infinite tenacity of purpose and notable qualities of leadership. Many leaders of United States enterprise in Antarctica received their training under him. For thirty years he was the outstanding figure in the Antarctic affairs of the United States. These thirty years witnessed a revolution in the techniques of transport and communication which Byrd was foremost in applying to the specialized needs of Antarctic exploration. A symbol of this initiative was the establishment, in 1956-57, of the United States South Pole station entirely from the air, during which over 1000 tons of stores and equipment were transported by aircraft from the base at McMurdo Sound. The position of the United States in Antarctic affairs today is in a great measure due to his work and inspiration.

Admiral EDWARD RATCLIFFE GARTH RUSSELL EVANS, R.N., retd., Lord Mountevans, was born in England on 28 October 1881 and died in Norway on 20 August 1957. He was educated at Merchant Taylors School and H.M.S. *Worcester*, then joined the Royal Navy in 1896. As a sub-lieutenant on the *Morning* he took part in the relief of Scott's *Discovery* expedition in 1902. In 1910 he joined the *Terra Nova* expedition as navigator and second-in-command. Frank Debenham writes of him:

"I first met Lieut. Evans as commander of the *Terra Nova* when she sailed from New Zealand with Captain Scott's last expedition and very soon noted his capacity for throwing aside the responsibility of such a post to lead or join in the fun and games which went on in the ward-room.

"Though still a young man he had already seen Antarctic service as one of two very junior officers in the *Morning*, the relief ship for Captain Scott's *Discovery* expedition 1902. He was by temperament well fitted for the sudden emergencies which must occur in the life of a ship's officer, especially in those stormy seas.

"Possibly he was not so much at home on land, where the dullness of sledging, of enduring long delays when blizzard-bound did not give much scope to his Welsh character. Nevertheless, he was in all the major journeys and was leader of the last supporting party to leave Captain Scott on the latter's fatal journey to the Pole. During that return trip his only companions were two of the men, Petty Officer Tom Crean and Chief Stoker Bill Lashly to whom he owed his life.

"Evans had to be invalided home to New Zealand in 1912 and he returned on the *Terra Nova* in January 1913 to take the command of the expedition, which thus devolved on him for the last few weeks."

In 1914 he returned to naval duty in command of a destroyer and was actively engaged in the Dover Patrol throughout the First World War. He gained special promotion and fame when, commanding *Broke* and together with *Swift*, he attacked six German destroyers returning from a raid on Dover. Later, when commanding the cruiser *Carlisle* on the China Station, he risked his life to rescue the crew of the wrecked steamer *Hong Moh* near Swatow. After appointments as Captain of the Fishery Protection and Minesweeping Flotilla, and the battle-cruiser *Repulse*, he was promoted rear-admiral in 1928. He commanded the Australia Squadron from 1929 to 1931 and the Africa Station in 1933 to 1935. In 1934, on the sloop *Milford*, he visited Bouvetøya. He relinquished the Nore Command in January 1939, and was immediately appointed a Regional Commissioner for London in the Civil Defence Scheme. He was knighted in 1935, and made a peer in 1945.

WILHELM FILCHNER died on 7 May 1957 in Switzerland, at the age of seventy-nine. He led two expeditions to the polar regions. His expedition to Spitsbergen in 1910 was undertaken to provide polar experience and to test equipment for his forthcoming Antarctic expedition. His major contribution to polar exploration was the voyage to the Weddell Sea in 1911–12 when his intention was to cross Antarctica. He was the first to reach the head of the Weddell Sea, discovering Vahsel Bay, but the section of the ice shelf on which he established his base camp broke free in a storm and drifted out to sea. Everyone was rescued, but his ship *Deutschland* was then beset and drifted for nine months in the Weddell Sea before reaching open water. The observations made during this period were very valuable, since the area was completely unknown. His further antarctic plans had to be abandoned because of the First World War. Filchner was also a notable explorer of central Asia and Tibet.

LORENTZ PETER ELFRED FREUCHEN, the Danish arctic explorer, adventurer and writer, was born on 20 February 1886 at Nykøbing in Denmark, and died on 2 September 1957 at the airfield at Anchorage, Alaska, while on his way to make a film in north-west Greenland and the polar basin.

Freuchen abandoned medical studies in order to take part in Mylius-Erichsen's *Danmark* expedition to north-east Greenland, 1906–08, as meteorological assistant to Alfred Wegener. He first went to west Greenland as a stoker on the vessel which collected sledge dogs for the expedition. In 1910 he helped Knud Rasmussen to found the Eskimo settlement of Thule in north-west Greenland. There he married a pure Eskimo, Navarana Mequpaluk, and successfully adapted himself to the Eskimo way of life. In 1912 Freuchen, Rasmussen and two Eskimos formed the First Thule Expedition, crossing the Greenland ice sheet to the north-east coast and back to Thule. It was Freuchen who first mapped the area around the head of Independence Fjord, and demonstrated the correctness of Mylius-Erichsen's discovery in 1907 (then unknown) that Peary Channel did not exist. Freuchen spent the next six years, 1913–19, administering the settlement at Thule, as Handelsbestyrer [Trading manager]. In 1919 he helped Godfred Hansen lay out depots in north Greenland for the use of Amundsen's *Maud* expedition. In 1921 Navarana died of influenza in west Greenland, when she and Freuchen were on their way to take part in Rasmussen's Fifth Thule Expedition, 1921–24. Freuchen joined the expedition as cartographer and biologist, and it was then that he suffered the frost-bite which later necessitated amputation of his left foot. For some years Freuchen lived in Denmark engaged in farming, journalism and writing, including novels with a polar background. In 1928 he travelled in the Soviet Arctic, and he revisited west Greenland in 1929 and 1930. In 1932–33 he made the film "Eskimo" in Alaska, himself playing one of the main parts. After travels in South America he visited the Soviet Arctic again in 1937, when he sailed from Tiksi to Vladivostok. In 1938 he made an unsuccessful film in Lapland. Freuchen worked in the Danish underground movement during the German occupation, was arrested, and escaped to Sweden in 1944. From there he went to the United States, where he lived most of the time after the war.

He possessed an immense physique, great strength and a mind rich in fantasy. With Freuchen's death the Arctic has lost one of its most colourful characters.

JOHANNES GRØNTVED, the Danish botanist was born in 1882 and died in 1956. He visited Iceland four times, and worked in Greenland in 1932, 1937 and 1953. On the first occasion he was on Disko, and in the latter two years he studied the flora of south Greenland. He published numerous papers on the botany of these two regions.

JUST KNUD QVIGSTAD, the Norwegian philologist and ethnographer, died in March 1957, a few days before his 104th birthday. After studying philology at Oslo University, Qvigstad went to Tromsø as a school-teacher in 1875, and spent most of the rest of his life there. In 1878 he learned Lappish. In the same year he took up a post at the Tromsø lærerseminarium [Teachers' training college] and in 1883 he became headmaster, a position he held, with only one short break, for thirty-seven years. Between 1905 and 1910 he was engaged as an expert during the dispute over reindeer between Norway and Sweden. Together with his Swedish colleague, K. B. Wiklund, he published *Dokumenter angaaende flytlapperne* [Documents concerning the nomadic Lapps] (Kristiania, Renbeitekommissionen af 1907, 1909). For the next two years Qvigstad was Kirkestatsråd [Minister for Church and Educational Affairs]. He retired in 1920 and began a rich period of scholarly activity, publishing a number of important works relating to Lapp culture. Qvigstad also took active part in humanitarian and religious work on behalf of the Lapps, translating books into Lappish and developing it as a literary language. He was a member of the board of Tromsø Museum from 1884 to 1934 and served as vice-chairman and chairman. He was in charge of the Lapp department of the museum until 1931.

FREDRIK CARL MÜLERTZ STØRMER was born on 3 September 1874 at Skien, Norway, and died in Oslo on 13 August 1957. An eminent astro-physicist, he was professor of pure mathematics at Oslo University from 1903 to 1946. He made a special study of aurora and devised a method of determining the heights and positions of aurora by means of photography. The method entails simultaneous photographs being taken at two widely separated points, and was developed by him at Bossekop, in Finnmark, in 1910 and 1913. As chairman of two international committees Størmer helped to organize the observation and photographing of aurora in both Arctic and Antarctic during the Polar Year 1932–33. In 1951 he was made a foreign member of the Royal Society.

HARALD ULRIK SVERDRUP, the eminent Norwegian meteorologist and oceanographer, was born on 15 November 1888 in Sogndal, Norway, and died on 21 August 1957.

He was assistant to Professor Vilhelm Bjerknes, the Norwegian physicist, from 1911 to 1917. In this last year he gained his doctorate with an important thesis on the dynamic and thermodynamic structure of the North Atlantic trade winds. Sverdrup was appointed chief scientist of the Norwegian North Polar Expedition, 1918–25, in the *Maud*. In 1919–20, when the *Maud* was at Ostrov Ayon, he learned the language of the Chukchis and accompanied them for seven and a half months on their winter inland migration. His observations of these people were first published as part of Amundsen's *Nordostpassagen* (Kristiania, 1921) and later as *Hos tundra-folket* (Oslo, 1938). From January to April 1921, when the *Maud* was at Mys Serdtse-Kamen, Sverdrup and Wisting made a sledge journey round the coast of Chukotski Poluostrov to Zaliv Kresta. Sverdrup, Wisting and Olonkin were the only men—not excluding Amundsen himself—who were with the expedition throughout the seven years it lasted. He was the editor of the scientific reports of this expedition, and himself wrote thirteen of the forty contributions.

From 1926 to 1931 Sverdrup was Professor of Meteorology at Det Geofysiske Institutt in Bergen, and in 1926, and from 1928 to 1940, a Research Associate of the Carnegie Institution. In 1931 he was chief scientist of Sir Hubert Wilkins's Arctic expedition in the submarine *Nautilus*. From 1931 to 1936 Sverdrup held a research post in geophysics at Christian Michelsens Institutt for Videnskap og Åndsfrihet in Bergen. In 1934 he was joint leader with Hans Ahlmann of the Norwegian–Swedish

Expedition to north-west Spitsbergen, during which he studied the heat exchange between the atmosphere and a snow surface. In 1936 Sverdrup became Director of the Scripps Institution of Oceanography of the University of California, at La Jolla, a position he held until 1948. At the same time he was Professor of Oceanography at the University of California. At La Jolla he made studies of wind and currents which were of great importance to fishery investigations. During the Second World War he worked on problems in connexion with submarines, and on warnings for swell which might occur during landing operations. In 1948 Sverdrup returned to Norway to become Director of Norsk Polarinstitut. In 1949 he was in addition appointed to the chair of Geophysics at Oslo University, where he also held the chairs of Mathematics and Natural Sciences. He was chairman of the international committee of the Norwegian-British-Swedish Antarctic Expedition, 1949-52, and much of the success of the organization of the expedition was due to his energy and influence. In January 1951 he visited Maudheim on board *Norsel*.

In 1956 he became vice-chairman of Det akademiske kollegium (the chief administrative body of the university) and deputy rector. He was chairman of the Norwegian fund for assistance to underdeveloped countries, and visited India to investigate the administration of Norwegian aid there. At the time of his death he was engaged in the organization of the Norwegian International Geophysical Year expedition to Antarctica, for which Norsk Polarinstitut is responsible.

The number of Sverdrup's publications is large; a bibliography has been published in the *Journal of Marine Research*, Vol. 7, No. 3, 1948, p. 127-38.