THOMAS JOHN ALLAN, a member of the British Antarctic Survey party at Stonington Island, lost his life while sledging in May 1966 some forty miles from the station. Allan, who was twenty-six years old, and a diesel-mechanic, was dog-sledging with J. F. Noel when they were overcome by a blizzard while in camp in lat 68° S.

DANIEL BARBIER, the French auroral physicist, was born in 1907 and died on 1 April 1965. During the course of a distinguished career he carried out field studies in Swedish Lapland, Alaska and in equatorial Africa, making many notable scientific and technical contributions to the subject.

Since the International Geophysical Year, 1957-58, he had been in charge of auroral and night-sky studies for the Centre National Français pour les Recherches Polaires and had been responsible for auroral observations at Archipel de Kerguelen and in Terre Adélie.

GUISEPPE BIAGI, radio operator during Nobile's *Italia* Arctic flight in 1928, died in Rome on 1 November 1965 at the age of 68. After the wreck of the airship some 300 km north-east of Spitsbergen, it was owing to his efforts with a small salvaged radio-set that the whereabouts of the party became known. He was rescued by the Soviet icebreaker *Krassin*, and served in the Italian navy during both World Wars. He published an account of the *Italia* disaster, *Biagi racconta* (Milan, 1929).

ROBERT BUREAU, who died in 1965, played a prominent part in French scientific work in the Antarctic since the establishment of Terres Australes et Antarctiques Français in 1949. He was responsible for the setting up of upper-atmosphere observatories in Archipel de Kerguelen and Terre Adélie. After serving in the Météorologie Nationale, he was for many years in charge of the Laboratoire National de Radio-électricité and was Président de la Commission Internationale de Météorologie Aeronautique.

JOHN HARRISON, one of New Zealand's outstanding mountaineers, was born in 1932 and killed by an avalanche on 23 June 1966 while taking part in a rescue operation in the Southern Alps. During his short climbing life, he took part in two Himalayan and two Antarctic expeditions. In 1955 he was the youngest member of the Canterbury Mountaineering Club's Mount Masherbrun Expedition, and in 1960 a member of Hillary's expedition to Makalu, when he took part in the rescue of Peter Mulgrew. In Antarctica, in 1958–59, he took part in the first ascents of Mount Discovery and Beacon Heights, and the third ascent of Mount Erebus. He later taught in the instruction course in mountain craft and survival operated by New Zealand for American aircrews and scientists in Antarctica.

Harrison Creek at Cape Bird and the Harrison Laboratory for biological studies there are named after him.

JOHN FRASER NOEL, a radio officer at the British Antarctic Survey station at Stonington Island lost his life while dog-sledging with T. J. Allan some forty miles from the station in May 1966. They appear to have been overcome by a blizzard in lat 68° S while camping. He was twenty-four years old.

JOHN JOHNSTON O'NEILL, the Canadian geologist, was born on 12 November 1886 and died in Ottawa on 1 June 1966. He took his BSc at McGill University in 1909 and his PhD at Yale University in 1912, then from 1913 to 1916 was a member of the Canadian Arctic Expedition. He was a member of the Geological Survey of Canada between 1914 and 1920, becoming assistant professor of Geology at McGill University in 1921, associate professor in 1927 and Sir William Dawson Professor, and Head of the Department of Geology, in 1929, holding other positions as well in the university, including that of Vice-Principal, until his retirement in 1952.

O'Neill was the first geologist to study the mainland coast of Arctic Canada from Darnley Bay to Bathurst Inlet, a distance of some 600 miles.

He was a Founder, Governor, and Chairman of the Board of Governors of the Arctic Institute of North America.

JOHAN RASMUSSEN, one of the great figures in the history of Norwegian whaling, died on 16 September 1966, just nine months after the death of Lars Christensen,* and as Sir James Clark Ross, the pride of his whaling fleets, was leaving Sandefjord on her way to the scrap-yard.

Rasmussen was born in Stavanger on 11 January 1878, the son of a sea captain, and in 1901, then a qualified lawyer, became assistant to the solicitor Peder Bogen, one of the founders of the Sandefjord whaling industry. After a break of four years in business in Oslo, he returned and, in 1913, became a partner in Bogen's whaling company, then the largest in the world and managing seven other companies in the Norwegian Sea and off Africa, Mexico, Alaska, South Georgia and the South Shetland Islands-A/S Capella, Hvalfangerselskapet Norrøna, Sandefjords Hvalfangerselskap, A/S Suderø, A/S Sydhavet, United States Whaling Company and A/S Viking, Bogen died in 1914, and Rasmussen took over the business, first with Alex. Lange, who had pioneered the use of floating-factory whaling in the Antarctic, and on his death with Torger Moe, a shipowner. The firm was first named Johan Rasmussen and Alex. Lange and subsequently Johan Rasmussen and Co. Owing to difficulties following the First World War all the subsidiary companies except those operating in Antarctic waters were liquidated, and the firm operated two whaling companies: A/S Vestfold with a shore station at Stromness, South Georgia, and the whaler Vestfold, and A/S Sydhavet operating the factory ship Svend Foyn off the South Shetland Islands. In 1923, Rasmussen formed A/S Rosshavet, with the shipowner Magnus Konow, in order to explore the possibilities of C. A. Larsen's suggestion that whaling in the Ross Sea would be profitable. The venture met with considerable success. The factory ship Sir James Clark Ross operated with five catchers in the Ross Sea in 1923-24 and 1924-25, the latter season being the first time pelagic sealing was attempted on a large scale. Another factory ship, C. A. Larsen, was put into service, the only one which has ever had a haul-up slip built in the bow. Rasmussen had the chief share in the expansion of whaling in 1928-31. In 1930 the company built a new Sir James Clark Ross, the first large factory ship to be dieselpropelled. Rasmussen was also chairman of a British firm, the Viking Whaling Co, for which Vikingen was built. During the difficult years after 1930, Svend Foyn and Vestfold were sold to English companies.

Like Lars Christensen, Rasmussen was deeply involved in the stormy history of Antarctic whaling between the two World Wars, when his natural talents as a negotiator were of immense value to Norwegian whaling interests. He had been vice-chairman of Den Norske Hvalfangerforening in 1915 and chairman from 1919 to 1928. He was also chairman, from 1936 to 1938, of the international Association of Whaling Companies which was formed after Den Norske Hvalfangerforening dissolved in 1929. He had shipping, banking and business interests in Sandefjord, and for many years took an active part in municipal politics.

^{*} Polar Record, Vol 13, No 84, 1966, p 353-55

LAURENCE RICKARD WAGER, who died on 20 November 1965, like several other post-1914-18 war British polar explorers began his Arctic work as a member of Gino Watkins' British Arctic Air Route Expedition, 1930-31.

Wager was born at Batley on 5 February 1904 and educated at Leeds Grammar School. From an early age he was a keen naturalist and while at school spent much of his vacations exploring the Yorkshire moors. At Pembroke College, Cambridge, he read for the Natural Science Tripos, and in 1926 took a First in Geology. During the following three years he held a Goldsmiths Companies Research Studentship and worked in the north Pennines and in west Yorkshire. While at Cambridge he was an active member of the University Mountaineering Club and acquired the reputation of being one of the best and safest rock climbers in Britain.

When Gino Watkins selected his team for the British Arctic Air Route Expedition, Wager was a natural choice. No better combination of fine climber and mountaineer and dedicated scientist existed in Britain, and it is doubtful if anyone in this country has since achieved Wager's combined standard in these two fields.

His main contribution to the expedition was geological survey and mapping, but he also took part in the late autumn journey, with F. S. Chapman, Augustine Courtauld and others, to relieve the personnel at the "Ice Cap Station", established earlier in the season. In the spring he journeyed with E. W. Bingham and A. Stevenson to Mount Forel (3460 m), surveying the inland margin of the coastal mountains on the way. Wager was the only experienced climber in the party, nevertheless with Stevenson he succeeded in reaching a height of 3200 m, before adverse ice conditions forced them to retreat.

Although Wager's part on these journeys formed a valuable contribution to the work of the expedition and greatly increased his experience of Arctic travel, it was his pioneer survey of the geology in the difficult Greenland coastal mountains between Angmagssalik and Kangerdlugssuaq during the summer of 1930 that led to his subsequent work of great geological significance.

In 1932, Wager returned to east Greenland as a member of the Scoresby Sound Committee's Second East Greenland Expedition, led by Ejnar Mikkelsen. The following year he joined Hugh Ruttledge's Everest expedition and was one of the four climbers chosen for the final assault on the summit, he and Wyn Harris making the first attempt and reaching a height of 9300 m. After a further trip to east Greenland in 1934 with Charcot in *Pourquoi Pas?*, Wager organized his own expedition, the British East Greenland Expedition, 1935–36.

In collaboration with A. Courtauld, a summer party was grafted on to the main expedition, the chief object of which was to climb the highest peak of the Watkins Bjærge (4000 m), a task successfully achieved in no small measure due to Wager's skill in getting the party through difficult ice country to the foot of the mountains. The wintering party was largely concerned with the geology of the Kangerdlugssuaq region, but such was Wager's energy and enthusiasm that some 35000 sq km of the Tertiary volcanic country of southern Knud Rasmussen's Land was geologically surveyed and mapped. Plans for another expedition in the early 1940s were frustrated by the war, and it was not until 1953 that Wager, in collaboration with W. A. Deer, was able to organize another visit to east Greenland. A further joint expedition was organized for 1966.* After Wager's death the expedition went forward as planned and a cairn, bearing a small plaque, was built on the Skærgaard Halvö in commemoration of Wager's unique contribution to petrology, so much of which was based on his work in east Greenland.

Wager's contribution to exploration was recognized by the award of the Polar Medal (1933), the Mungo Park Medal of the Royal Geographical Society (1936), and by the Presidency of the Arctic Club in 1952. He began his scientific career as a lecturer at

^{*} See p 783-84

Reading University in 1929, a post which he held until he joined the RAF early in 1940. After serving with distinction in the RAF photographic reconnaissance, he was released in 1944 to take the Chair of Geology at Durham University. In 1950 he was appointed Professor of Geology at Oxford and a Fellow of University College. For his scientific work Wager was awarded the Lyell Fund (1939), the Bigsby Medal (1945), and the Lyell Medal (1962), of the Geological Society of London, and the International Geological Congress Spendiarov Prize in 1948. He was elected to the Royal Society in 1946, was President of Section C (Geology) of the British Association in 1958 and President of the Mineralogical Society in 1960–63.

Particularly notable among the many papers he published in scientific journals are: The petrology of the Skærgaard intrusion, Kangerdlugssuaq, east Greenland. Meddelelser om Grønland, Vol 105, No 4, 1939. with W. A. Deer; Layered intrusions. Meddelelser fra Dansk Geologisk Forening, Vol 12, No 3, 1953, p 335-49; and The distribution of trace elements during strong fractionation of basic magma—a further study of the Skærgaard intrusion. Geochemica et cosmochemica Acta, Vol 1, No 3, p 129-208, with R. L. Mitchell.

W.A.D.