

## OBITUARY

HELGE GÖTRIK BACKLUND, the Swedish geologist, who died on 29 January 1958, was born in Dorpat on 3 September 1878. He took part in Golitsyn's expedition to Novaya Zemlya in 1897 and joined St Petersburg university the following year. He was a member of the Russo-Swedish arc of meridian expedition to Spitsbergen in 1899-1901, and in 1905 took part in Tolmachev's Khatanga expedition, working between the Yenisey and the Anabar. In 1909 Backlund started regional studies of the northernmost parts of the Ural and of the territory to the east, particularly Poluostrov Taymyr, as leader of the "Kuznetsov expedition". In 1912 he became curator of the geological museum of the Imperial Academy of Sciences in St Petersburg, but had to flee from Russia after the revolution. In 1918 he joined the staff of Åbo Akademi, engaged in geological survey in Swedish Lapland for some years, and in 1924 became professor of geology and mineralogy at Uppsala. He accompanied Lauge Koch to east Greenland in 1929, 1930 and, as chief geologist, in 1932-34. Backlund retired in 1943. One of his more important works on northern Russia is "On the eastern part of the arctic basalt plateau", *Acta Academiae Aboensis. Mathematica et Physica*, 1921, Vol. 1, Nr. 2.

JOHN R. CRUTTENDEN was born at Quincy, Illinois, on 22 November 1915, and died there on 7 September 1956. He was one of the leading oologists of the United States. In recent years he made numerous collecting trips to Alaska and the Canadian Arctic, including five visits to Churchill, Manitoba. His vast egg collection, including many rare Arctic items such as Ross's Gull, Whooping Crane and Eskimo Curlew, is to be preserved intact in the private museum which he built for this purpose at Quincy.

GEORGE VIBERT DOUGLAS was born in Montreal on 2 July 1892 and died in Toronto in October 1958 at the age of sixty-six.

After serving in the First World War and qualifying at Gill University he accompanied the Shackleton-Rowett Antarctic Expedition in the *Quest*, 1920-21, as geologist. On his return, the Scott Polar Research Institute provided funds and accommodation for five months while he prepared his report on the geology of South Georgia and other areas. He was the first research student to work in the Institute. He subsequently lectured in geology at Harvard University until 1926 when he became associated with mining interests. In 1932 he was appointed to the Chair of Geology at Dalhousie University.

CLIFFORD HAMILTON EASTON died on 20 August 1958 at the age of seventy-five. In 1905 he accompanied Dillon Wallace on a journey by canoe and dog sledge into the then unknown interior of Labrador. The party travelled for about 3000 miles, reaching Lake Michikamu and journeying down the George River to Ungava Bay.

MICHAEL FRANK WILLIAM HOLLAND and a Danish companion, GARSTEN VELSBOE, died in a blizzard on the ice cap above Inglefield Bredning, west Greenland, in July 1957. They were members of a Danish International Geophysical Year glaciological expedition working on the Hurlbut Gletscher.

Holland, who was twenty-nine when he died, studied at Oxford University from 1951 to 1953. He then did two years' research there on geological and physiographical material collected in Spitsbergen, for which he was awarded his B.Sc., before becoming a Tutorial Fellow at Bedford College, London. He accompanied four geological and glaciological expeditions to the Arctic before the final one on which he lost his life. In 1948 he led a party from Birmingham University to the area around Trygghamna



SIR HUBERT WILKINS

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in Vest Spitsbergen. In 1951 he was a member of the Oxford and Cambridge Spitsbergen Expedition to Nordaustlandet, and two years later returned with the Oxford University expedition to the area around Von Postbreen, Vest Spitsbergen. In 1956 he led the Oxford University Expedition to west Greenland, which worked on the Sukkertoppen ice cap and made the first ascent of Mount Atter. He joined the Danish expedition, under the leadership of Børge Fristrup, in the summer of 1957.

CHRISTOPHER JOHN BLISSETT KIRTON died as the result of an accident near the head of Billefjorden, Vest Spitsbergen, on 26 July 1958. He was a member of the Cambridge Spitsbergen Expedition, 1958, and was collecting fossils on a mountainside when he was fatally injured in a fall of scree. Kirton was a first-year undergraduate of Queens' College, Cambridge.

THOMAS HANS ORDE-LEES was born in Germany and died in Wellington on 2 December 1958 at the age of seventy-nine. Educated at Marlborough College, the Royal Naval School, Gosport, and Sandhurst, he was commissioned in the Royal Marines, and rose to the rank of Lieut. Colonel, R.M. He was a member of Shackleton's *Endurance* expedition, 1914–16, with the official position of "motor-expert". On his return to duty he became interested in aviation and entered the balloon service, also playing a part in the development of parachutes during the First World War. In later years he was a lecturer at Kobe University and *Times* correspondent in Japan.

ANDRÉ PRUDHOMME was born in Paris on 20 February 1920 and died on 7 January 1959 in Terre Adélie, Antarctica. He served as meteorologist on the French Antarctic Expedition, 1950–51, spending the winter of 1951 at Port Martin. He returned to Antarctica in 1958 as meteorologist to the third French I.G.Y. Antarctic expedition and was making meteorological observations at Station "Dumont d'Urville" during a blizzard when he disappeared and presumably was drowned.

SIR GEORGE HUBERT WILKINS was born in Mount Brian East, Australia, on 31 October 1888 and died at Framlingham, Massachusetts, on 2 December 1958. These dates give little indication of the astonishing amount of adventure and experience which he packed into seventy years. After training at the State School and School of Mines in Adelaide, he reached Europe as a stowaway and spent four years wandering in Europe and America, eventually serving as an official photographer to the Turkish army during the Balkan war of 1912. A year later he joined Vilhjalmur Stefansson's Canadian Arctic Expedition, 1913–18, as photographer, and was one of the party which became separated from the *Karuk* when she was beset off Point Barrow and drifted westwards to her doom in the Chukchi Sea. The party had to "live off the land" while travelling some 5000 miles on foot. Wilkins became second-in-command, and during the three years he was with this expedition absorbed much invaluable experience in polar techniques. He had learned to fly in 1910–12, and now formed the idea of flying over the Arctic Ocean. However, his proposal to Stefansson that they should go south and get aeroplanes did not find favour. He left the expedition in 1917 to enlist with the Australian Flying Corps, was promoted to captain and was awarded the Military Cross with bar. At the end of 1917 he was seconded to the Military History Department and commanded the photographic section of the Australian forces in France.

At the end of the war, Wilkins immediately turned again to thoughts of the Arctic. In 1919 he planned a flight from Spitsbergen to Alaska, but failed to secure a suitable aeroplane; his ideas were regarded as fantastic. The same year he was navigator for one of the pioneer flights from England to Australia.

In 1920 an ambitious British Antarctic expedition was planned by J. L. Cope—with Wilkins as second-in-command—to survey the east side of the Ross Sea and

to reach the South Pole by air. Twelve surplus aircraft were acquired by gift from the Royal Air Force Disposal Board; they were to be used in relays and abandoned in succession along the route. These plans had to be abandoned owing to lack of support, and the aircraft were returned to the R.A.F. Instead, Cope and Wilkins, with T. W. Bagshawe and M. C. Lester, went to Graham Land in whaling vessels in 1920, intending to sledge southwards from Hope Bay and explore the west and south coasts of the Weddell Sea. The ice prevented access to Hope Bay, and Cope and Wilkins returned to England, leaving the other two members of the party to winter on the west coast. Wilkins then joined the Shackleton-Rowett Antarctic Expedition in the *Quest*, 1921-22, during which he devoted his attention to ornithological observations.

While he was working in the British Museum (Natural History) on the specimens brought back by the *Quest*, Wilkins was selected by the Trustees to lead a collecting expedition to tropical Australia, a task which he successfully performed between 1923 and 1925.

Returning to the Arctic, Wilkins spent the next three years making pioneer exploratory flights with Carl Ben Eielson as pilot. He has described these years as: "We begged for money, bought machines, flew them and smashed them, rebuilt them and smashed ourselves".

In 1926 and 1927 his object was to explore the unknown area immediately to the north of Alaska. The logical base was Point Barrow, but supplies had first to be collected there. Most of the 1926 season was devoted to flying stores from Fairbanks to Point Barrow, and longer flights could not be made, but the route lay across an interesting and then unknown section of the Brooks Range. In 1927 Wilkins decided to penetrate the unexplored region of the Arctic Ocean between the tracks of the *Norge* and the *Jeannette*. On 29 March 1927 Wilkins and Eielson flew north-west from Point Barrow for some 500 miles and landed on the pack ice in about lat.  $77^{\circ} 45' N.$ , long.  $175^{\circ} W.$  With an echo sounder he determined the depth as 5440 m., a measurement which later investigators considerably reduced. During the return flight, headwinds forced them to land on the pack ice about 100 miles from Point Barrow. From here the current drifted them 200 miles in six days; they abandoned the aircraft and walked 80 miles to the Alaska coast at Beechey Point, building snow houses for shelter on the way. Another flight, north-eastwards from Point Barrow in May 1927, to beyond  $74^{\circ} N.$ , disclosed nothing but pack ice.

In 1928 Wilkins proposed to continue his examination of the area north-east of Point Barrow by flying 2100 miles across the Arctic Ocean to Spitsbergen via northern Ellesmere Island. In a 20-hour flight on 15-16 April he and Eielson brilliantly completed this project, greatly reducing the unknown area. It was a remarkable achievement in air navigation for which he was knighted by King George V and received the Patron's Medal of the Royal Geographical Society.

Next, he turned south again as leader of the Wilkins-Hearst Antarctic Expedition, 1928-29. After several preliminary flights from Deception Island (that on 16 November 1928 being the first ever made in the Antarctic), Sir Hubert took off for his main exploratory flight on 20 December with C. B. Eielson as pilot. They flew down the east coast of Graham Land for 600 miles to about lat.  $71^{\circ} 20' S.$ , and returned by practically the same route. A second flight, on 10 January 1929, 250 miles out in the same direction, appeared to confirm the observations of the previous flight. Although the original intention to fly across the continent to the Ross Sea was frustrated by bad weather, and the discoveries reported have since nearly all been shown to be erroneous, this was a major achievement in aviation which demonstrated both the possibilities and the limitations of aerial exploration in the Antarctic. The furthest south point sighted was named "Hearst Land" (now identified as Hearst Island). The results suggested that Graham Land was an archipelago separated from

the mainland by "Crane Channel", "Casey Channel" and "Lurabee Channel" (now Crane, Casey and Lurabee Glaciers) and "Stefansson Strait" (now Stefansson Sound). The existence of these east-west channels has since been disproved, but the lessons learnt by this pioneer reconnaissance greatly influenced the course of all subsequent exploration in the area.

The following season, 1929–30, Sir Hubert returned to the Antarctic, this time with the "Discovery" Committee's *William Scoresby* as tender, in the hope of flying westwards along the mainland coast from Graham Land to the Ross Sea. Further flights in northern Graham Land as far south as Leroux Bay and eastwards to Richthofen Pass appeared to confirm and extend the erroneous discoveries of 1928. Charcot Land was shown to be an island, and an important reconnaissance flight southwards to about lat. 73° S., in long. 101° W., revealed nothing but pack ice. No suitable site could be found for a starting point of the proposed trans-continental flight, which accordingly had to be postponed once more.

Sir Hubert's failure to penetrate the belt of pack ice off the coast of the Pacific sector of Antarctica with the *William Scoresby* in 1929 caused him to seek alternative methods. His mind turned to submarines, which he thought might pass under the ice. He was obsessed with the idea that future polar air routes and long-range weather forecasting would require meteorological stations in many inaccessible places, and that means must be found to reach and maintain these stations. By 1931 his ideas had advanced sufficiently for practical trial, and he launched his project to reach the North Pole by diving under the pack ice of the Arctic Ocean. He obtained the loan of the submarine O 12 from the United States Navy, renamed her *Nautilus* after Jules Verne's visionary tale, and left Longyearbyen, in Vest Spitsbergen, on 18 August 1931. H. U. Sverdrup accompanied the venture as chief scientist. Unfavourable weather and damage to the vessel's diving gear forced him to turn back at lat. 82° 15' N., but a rich harvest of scientific results and practical experience was obtained, and Sir Hubert became convinced of the practicability of under-ice travel. Although he was again ridiculed for his ideas, and was not successful in obtaining support for building a new submarine specially for polar work, he lived to see full vindication with the trans-Arctic under-ice voyages of the U.S.S. *Nautilus* and U.S.S. *Skate* in 1958.

Lincoln Ellsworth had been joint leader of the earlier *Nautilus* expedition in 1931 and he, too, became fired with Sir Hubert Wilkins' enthusiasm for a trans-Antarctic flight. The two men worked in close co-operation, and during Ellsworth's expeditions of 1933–34, 1934–35, 1935–36 (when the first trans-Antarctic flight was successfully accomplished) and 1938–39, Sir Hubert was responsible for the administrative details at the bases and on board the *Wyatt Earp*. In 1937 and 1938 he also made a number of flights over the Beaufort Sea and northern Alaska to search for the Russian aviator Levanevskiy and his five companions, who had been lost during a flight from Moscow to Fairbanks in August 1937.

During the Second World War Sir Hubert Wilkins was based in Washington, where his advice was constantly sought in connexion with Arctic problems. From 1942 to 1952 he served as consultant to the United States Military Planning Division, working mainly in the Office of the Quartermaster General, designing and testing cold climate equipment and conducting field trials in Alaska. Since 1953, he continued this work as geographer in the Research and Development Command, United States Department of Defence.

Among many publications, he wrote *Undiscovered Australia* (London, 1928), *Flying the Arctic* (New York and London, 1928), *Under the North Pole: the Wilkins-Ellsworth submarine expedition* (New York, 1931), *Thoughts through space: a remarkable adventure in the realm of the mind* (New York, 1942), and numerous contributions to periodicals.

B.B.R.