OBITUARY

Dr T. C. POULTER, second-in-command of the 1933-35 United States Antarctic Expedition led by Richard Byrd, died on 14 June 1978 at the age of 81 years in Los Altos Hills, California. After schooling in Iowa, Dr Poulter studied science at the Iowa Wesleyan University where he later returned to head the chemistry, and then the physics departments. Among his students was James Van Allen, who later discovered the radiation belts around the earth.

In 1934 Poulter joined Byrd's second Antarctic expedition as a physicist. He and his team were the first to demonstrate that seismic shooting equipment could be satisfactorily operated in Antarctica. In addition, he initiated systematic observations of meteor trails and other geophysical observations. As second-in-command Poulter carried responsibility for the station while Byrd spent the winter alone at his forward base. He was primarily responsible for the decision to relieve Byrd when radio messages indicated that all was not well. Poulter led this journey in winter darkness and Byrd was found to be suffering seriously from the effect of fumes from his generator. Poulter gave general advice to the third Byrd Antarctic expedition 1939–41, as a scientific director, and designed a snow cruiser, a 33-tonne vehicle with large rubber wheels which it was hoped would be capable of operating long distances over Antarctic snow.

In 1936 Poulter became director of the Armour Research Foundation in Chicago and during World War II he worked with the Naval Research Laboratories at Point Barrow, Alaska. In 1948 he became associate director of the Stanford Research Institute, becoming general manager of the institute's physical and life sciences in 1960. He established the institute's laboratory for the study of biological sonar and diving mammals. Since retirement he has been working on possible experimental implants to aid the deaf.

Poulter's main contribution to polar research was, together with Byrd, to introduce a combination of modern logistic technology with the latest scientific instrumentation for geophysical studies. Although it was difficult to produce satisfactory results every time, the methods developed for combining oversnow traverses with scientific instrumental observations of ice cover were the earliest forerunners in Anarctica of the extensive oversnow journeys carried out during the International Geophysical Year 1957–58. Poulter was awarded two special Congressional medals and the gold medal of the National Geographic Society.

Gordon de Q. Robin

General UMBERTO NOBILE, the Italian aviator and airship designer who was one of the first men to fly over the North Pole, died on 29 July 1978 aged 93. He was born in the village of Lauro on 21 June 1885 and studied civil engineering at Naples. He passed his qualifying examinations with distinction and in 1909 entered the technical branch of the administrative service of the state railways. Three years later he took up the study of aeronautical construction, devoting special attention to the design of airships. During World War I he worked on airships for military use and was responsible for designing the 'O' type of dirigible, specimens of which were later sent to England, Spain and Argentina.

The idea of polar exploration by dirigible appealed greatly to the Norwegian explorer Roald Amundsen. While he and the American aviator Lincoln Ellsworth were engaged in their attempt to fly across the North Pole from Spitsbergen they learned that the Italian government might be willing to dispose of the airship N1, designed by Nobile, for the purpose of a trans-polar flight. Eventually the airship, renamed the Norge, was purchased for a substantial sum and Nobile joined the expedition as pilot. The flight from Spitsbergen to Alaska, with Amundsen and Ellsworth in joint command, was successfully carried out in May 1926 and Nobile was promoted to the rank of general.

Two years later Nobile mounted an expedition to map the Arctic regions from the airship *Italia*, which he had designed and adapted for polar work. It was an expedition that ended in complete disaster. The *Italia* crashed to the ice on 25 May 1928 on her return journey from the pole. The lives of eight of those aboard the airship were lost and five men, including Amundsen, died in the search for the expedition's survivors. Nobile himself, with a broken arm and leg, was

OBITUARY 517

one of the first to be rescued, by a Swedish airman on 24 June. The Italian government appointed a commission of inquiry into the disaster, which reported in February 1929. The commissioners concluded that loss of the airship was due to a false manoeuvre, for which Nobile was responsible. His conduct in allowing himself to be rescued first was also criticized. Within a fortnight the Italian air ministry announced that Nobile had resigned his commission and retired to private life. Controversy continued to rage round the subject, however, some contending that the leader of the expedition had been made a scapegoat.

Subsequently Nobile entered the Russian service and became deputy chief of Soviet airship construction. In 1932 the airship SSSR was built under his supervision at Leningrad, and he was granted permission to take charge of the airship on her first flight to Moscow. In 1936 he became head of the aeronautical engineering department of Lewis College of Science and Technology in Lockport, Illinois. He returned to Italy in 1945 as an instructor in aeronautics at the University of Naples.

After World War II had ended he published a book entitled I can tell the truth in which he maintained that his commission of inquiry had been stacked against him by the Fascist regime. In 1945 he was reinstated as a general in the Italian airforce and entered politics as a delegate to Italy's 1946 Constituent Assembly. His interest in politics lasted only a year. Completely retired, he wrote five more books on the Italia voyage. The last, The red tent, written in 1967, was made into a successful film.

Miss NORAH DUNDAS GOURLIE who journeyed alone into the European Arctic in the 1930's died in April 1974 at the age of 80. She bequeathed to the Scott Polar Research Institute her collection of photographs and slides relating to Lapland. Miss Gourlie, a native of Helensburgh, Scotland, made two journeys by reindeer sleigh to Lappish communities in 1938. The first took her from Inari to Utsjoki and Karasjok and a second took her from Enontekiö to Kaaresuvanto. Later she wrote an interesting account of her travels: A Winter with Finnish Lapps (London, Blackie, 1939). During the winter war of 1939 she worked for Lotta Svärd, a Swedish volunteer corps. Throughout her long life she was interested in Swedish and Finnish affairs, and published a biography of Carl von Linné (Linnaeus): The Prince of Botany (London: Witherby, 1953). She was an entertaining conversationalist who had some interesting insights into the rural life of northern Europe. A study of Karelia, completed just before its cession to the Soviet Union, alas remained unpublished.

Ian Whitaker