

with the British Antarctic Survey. Clasp to Polar Medal: Verner Duncan Carse, expedition leader for the South Georgia Surveys of 1951–57. (Source: Third Supplement to *The London Gazette*, 30 March 1992.)

NORTHERN SCIENCE HONOURS. Dr Andrew Taylor, OC, has been named the 1992 recipient of the Northern Science Award of the Canadian Department of Indian Affairs and Northern Development, in recognition of his northern field surveys and his geographical and historical research on the Canadian Arctic. Taylor, now 85, was a member of the Royal Naval 'Operation Tabarin' in 1943–45. As a field commander in 1944–45, he was responsible for establishing the Hope Bay station on Trinity Peninsula, Graham Land. (Source: Geoffrey Hattersley-Smith.)

CANADIAN ARCTIC STUDY TOUR. A two-week study tour on 'Environmental issues in the Arctic,' based in Inuvik and Tuktoyaktuk, NWT, is being organized for 25 July–9 August 1993, run jointly by the University of Alberta and Keele University. Participants will visit a wide range of northern biomes from the forest and forest tundra of Wood Buffalo National Park to the low-shrub tundra and sea ice of the north coast. Organizing tutors are Dr Ross Wein (Alberta), Dr Peter Thomas (Keele), and Dr Bernard Stonehouse (Scott Polar Research Institute, University of Cambridge). Other tutors will include staff of the Northern Research Institute, Inuvik. The course will emphasize the ecology, economics, and management of northern biomes and human communities under current environmental pressures, including oil exploration, whaling, long-range pollution, tourism, and global climate changes. Participants will be encouraged to explore topics

of their own choice with staff assistance. For further information contact Dr Thomas, Biological Sciences, Keele University, Staffordshire ST5 5BG UK, Tel. 0782 621111.

AUSTRALIA'S HUSKIES. The last of Australia's working huskies have been removed from Antarctica. Twenty-two dogs—nineteen trained sledge dogs and three pups—arrived in Hobart from Mawson station on board the ice-strengthened *Aurora Australis* on 23 November 1992 in transit to North America. Two outdoor recreation and educational establishments in Ely, Minnesota, were selected as their new homes. Six dogs, which are too old to continue work, remain at Mawson, and a decision on the placement of any surviving at the end of the 1993–94 summer will be made then. The dogs are descendants from Labrador and Greenland huskies taken to Heard Island in 1950 and to Mawson in 1954. They are working dogs and have always been used in their traditional role of pulling sledges on field trips.

Environmentalists have consistently questioned the presence of the huskies, and the 1991 Protocol on Environmental Protection to the Antarctic Treaty requires the removal of dogs by 1 April 1994. Although the Protocol is not in force, it has been agreed that the Treaty nations should begin applying its provisions as far as possible.

The 'Friends of the Polar Sledge Dogs' have unsuccessfully lobbied Ros Kelly, the Minister for the Arts, Sport, the Environment and Territories, for the huskies to be retained, and have conducted an active campaign. They have argued that the huskies are valuable to morale in isolated locations and are safer, cheaper, and less harmful to the environment than the vehicles that replace them. They also dispute the decision to relocate the teams in the US rather than Australia.

Obituary

Frederick John Jacka, former director of the Mawson Institute for Antarctic Research, died at the Flinders Medical Centre Adelaide on 16 October 1992. During the previous year he had been weakened as a result of cancer, and he died from a heart attack after being admitted to hospital the previous day.

Born in 1925, Jacka received his first degree and his PhD at the University of Melbourne. In 1947, while a postgraduate student, Jacka was, by his own account, 'subverted to the Antarctic cause and went off to Heard Island.' As a member of the first Australian National Antarctic Research Expedition (ANARE), he helped establish the base at Atlas Cove on Heard Island in 1947–48. The expedition of 14 members wintered and was relieved by HMAS *Labuan* in February 1949. It was during the voyages across the Southern Ocean that Jacka became interested in the formation of ocean waves, which inspired

and indirectly lead him to devote his professional life to the study of the dynamics of the upper atmosphere.

After his return from Heard Island, Jacka worked with the Australian Antarctic Division, first as Chief Physicist and then Assistant Director (Science). Between 1949 and 1964 he concentrated on the study of the upper atmosphere, with particular interest in auroral activity over the Antarctic regions. In 1952 he was a founding member of the ANARE Club, and drew up the initial constitution for the new club, which continues to thrive and play an important role in the lives of many past ANARE expeditioners.

In 1965 Jacka was appointed Director of the University of Adelaide's Mawson Institute for Antarctic Research (MIAR), which had been established in 1959 and inaugurated on 15 April 1961. During his directorship, he oversaw scientific research programmes covering biologi-

cal aspects of sub-Antarctic marine mammals and birds, development of new techniques of photochemotherapy for some types of cancer, and upper-atmospheric physics, which formed the main focus of the institute in the past decade. In 1992 the most recent upper-atmospheric physics apparatus developed by the MIAR was installed at the University of Adelaide Research Station at Buckland Park.

Jacka also campaigned, often controversially, for the preservation of the Mawson Collection, which was under his custodianship. Under his guidance, the arrangement and cataloguing of Mawson's papers were completed, and work on the artefacts and photographic collection was begun. Jacka and his wife Eleanor also edited *Mawson's Antarctic Diaries*.

Although Jacka never visited the Antarctic continent, he encouraged and supported many to do so, in particular his post-graduate students; members of the Mawson Institute and ANARE collectively spent nearly 20 years researching upper-atmosphere physics in the Antarctic.

Jacka was compassionate, but thoroughly determined, able to maintain headway even when confronted by the most discouraging difficulties. He set perfection as his goal, and never considered 'near enough' an acceptable alternative. His honesty in expressing his views was at times seen by others as stubbornness, but for those who knew him personally, this honesty and his clarity of communication were qualities that will be dearly missed. Jacka's contribution to Antarctic science will be noticed by his absence at a time when Australia is crying out for the training of minds prepared to attain further understanding of Antarctica. His care and guidance in encouraging new entrants into the world of Antarctic research will not be replaced easily.

Richard Ferguson

Richard Blackburn Black, US Naval officer and member of five Antarctic expeditions, died on 11 August 1992 at the age of 90. A native of Grand Forks, North Dakota, Black was trained as a civil engineer at the University of North Dakota. Shortly thereafter, he joined Richard E. Byrd's second expedition to Antarctica (1933–35), for which he received the US Navy's Special Silver Medal.

Black received international attention in 1937 when he

was put in charge of preparing a landing strip on Howland Island, a small, remote spit of land on the route between Hawaii and Australia. The strip was to be used as a refueling stop for Amelia Earhart's attempt to fly around the world. On 2 July 1937, Ms Earhart left Lae in British New Guinea on the 4150 km nonstop flight to Howland Island. However, Earhart and her navigator, Fred Noonan, could not find the small island. Black received their final radio transmission, reporting that they had 30 minutes of fuel remaining; Earhart, Noonan, and the aircraft were never found.

From 1939 through 1941, Black was the leader of East Base on Stonington Island on the US Antarctic Service Expedition. Upon his return to the United States, he was stationed at Pearl Harbor, Hawaii, where he was when the Japanese attacked on 7 December 1941 to bring the US into the Second World War. He later participated in the invasions of Tarawa and Saipan, and was awarded a Bronze Star for his bravery.

After World War II, Black worked as a federal aeronautics official in Hawaii, but his interest in the polar regions continued. He served on three other US Antarctic expeditions.

Beau Riffenburgh

Sir Edwin Porter Arrowsmith, former governor of the Falkland Islands, died in August 1992 at the age of 83. Born 23 May 1909, he entered public service in 1932, spending most of the next 32 years working in either the West Indies or southern Africa. In 1962 he was named governor and commander-in-chief of the Falkland Islands and Dependencies and high commissioner of the British Antarctic Territory. He visited the Antarctic territories aboard HMS *Protector* during the 1962–63 season and opened the new administrative station, Shackleton House, on King Edward Point. Arrowsmith retired from this position in 1964, and the next year was named director of the Overseas Services Resettlement Bureau, a position he held until 1979. After his retirement from the Resettlement Bureau, he became the chairman of the Royal Commonwealth Society for the Blind, an organization with which he was active for the next decade.

Beau Riffenburgh