VITOL'D IVANOVICH AVGEVICH, the Soviet photogrammetrist, died on 26 March 1965 at the age of 58. He became interested in the applications of air photography in 1928, and for the next twenty-three years devoted himself to its Arctic aspects. His field trips in the Soviet north were many, and included a small boat journey from Kamchatka to the mouth of the Lena in 1930–32, two years in the Novosibirskiye Ostrova (1935–37), and a year adrift in the Arctic Ocean aboard the *Georgiy Sedov* (1937–38). He specialized in the use of air photography as an aid to sea ice studies. He taught at Moscow State University after the Second World War, and from 1957 until his death was head of the stereophotogrammetric laboratory of the Institute of Geography [Institut Geografii] of the Academy of Sciences of the USSR.

Marine Corps Major VERNON DAVIS BOYD, retd. died on 29 May 1965 in California at the age of 57. In addition to considerable Arctic experience, he took part in the United States Antarctic Expedition, 1933–35, the United States Antarctic Service Expedition, 1939–41, Operation "Highjump", 1946–47, and Operation "Windmill" 1947–48. He was also concerned with the planning of Operation "Deep Freeze", 1955–56, but did not accompany the expedition to Antarctica.

THOMAS C. CLISSOLD, who died in New Zealand on 20 October 1963 at the age of 77, was the youngest member of Scott's *Terra Nova* Expedition, 1910–13.

He was, by trade, an artificer in the Royal Navy and learnt cooking to qualify himself for a place on the expedition. His skill as a cook was noted by Scott as were his mechanical inventiveness and ability to train sledge dogs. He took part in two depotlaying journeys but an injury to his back curtailed his service, and he returned with *Terra Nova* in 1912. He subsequently fought in the First World War, then emigrated to New Zealand and joined the Transport Department, retiring in 1953 as Vehicle Inspector at Napier.

Lieutenant WILLIAM A. DOTSON, USA, was killed while carrying out an air ice reconnaissance mission on 27 November 1964, near Cape Newenham, Alaska.

Dotson had had eleven years experience of polar flying on behalf of the United States Oceanographic Office and had taken part in early ice reconnaissance operations in both the Arctic and the Antarctic. Since 1963 he had been Naval Weather Service ice forecaster for the Alaska area.

RICHARD FINSTERWALDER was born on 7 March 1899 in München and died on 28 October 1963. He was the son of the well-known mathematician and glaciologist Professor Sebastian Finsterwalder, and, when a young man, was taken by his father to make glacier measurements in the eastern Alps. In this way a life-time's interest in glacier fluctuations began. In the early 1920's he studied constructional engineering and survey at the Technische Hochschule in München, and after graduation worked on road and river projects in the Bavarian uplands. There he became interested in the technique of terrestrial stereophotogrammetry, which he used later to record glacier fluctuations in many parts of the world. In 1929 he joined the German-Russian expedition to the Altay and Pamirs where he applied his high mountain survey techniques to the mapping of hitherto unmapped glaciers, using a light field photo-theodolite. The drainage area of the newly discovered Lednik Fedchenko was surveyed and the first photogrammetrical velocity measurements were carried out.

In 1930 Finsterwalder became a University lecturer and later professor at the Technische Hochschule in Hanover. In 1934 he went to Nanga Parbat as scientific leader of the German expedition. Photogrammetrical measurements of the Rakhiot Glacier confirmed his ideas about Block-Schollen movement of ice which he had first developed during the earlier expedition to the Pamirs. He published an account of this in the *Journal of Glaciology* (Vol 1, No 7, 1950, p 385). In 1939 he published his instructional book *Photogrammetrie* and was working on the third edition of this when he died.

After the 1939–45 war, Finsterwalder helped reconstruct the organization of surveying in Germany until he returned to München in 1948 to take the chair of Photogrammetry, Topography and General Cartography at the Technische Hochschule. He combined the techniques of climatology, meteorology, geophysics and rheology in an attempt to analyse glacier fluctuations from 1850 to the year of his death. Every two years from 1951 he held courses in glaciology and mountain research, which were attended by people from many countries.

Finsterwalder's activities in the field of glaciology brought him recognition in the International Commission of Snow and Ice when he was elected President for 1957-60. He also served as President and then Vice-President of the Committee of Management of the Expédition Glaciologique Internationale au Grønland.

J. LOUIS GIDDINGS was born in Texas on 10 April 1909 and died following a motor accident on 9 December 1964. He studied at Rice University and received his BSc degree at the University of Alaska in 1932, his MA at the University of Arizona in 1941, and his PhD at the University of Pennsylvania in 1951. After working as an engineer for the United States Smelting and Refining Company from 1932 to 1937 he worked in the Anthropological Department of the University of Alaska until 1950, with an interval for war service between 1943 and 1946. In 1950 he became Assistant Professor of Anthropology and Assistant Curator of the University Museum of the University of Pennsylvania. In 1956 he was appointed Associate Professor of Anthropology and Director of the Hoffenroffer Museum of Brown University, becoming Professor in 1959.

Giddings was the first to apply the technique of dendrochronology to the Arctic, establishing a 1000-year tree-ring chronology from Eskimo village sites. His work at Cape Denbeigh elucidated the unique 4500 to 5000 year old Denbeigh Flint Complex, and excavations around Kotzebue Sound and at Orion Portage on the Kobuk River were all notably productive. He published a large number of papers in scientific jounals, and several monographs including *The archaeology of Cape Denbeigh* (Providence, Brown University, 1964) published shortly before his death.

Dr JAMES WILLIAM SLESSER MARR, British zoologist, died on 29 April 1965 after a prolonged period of illness. He was born at Cushnie, Auchterless, Aberdeenshire, on 9 December 1902.

Although he will be remembered by many as "Scout Marr", he made outstanding contributions in the field of Antarctic research and marine biology. Marr was one of the first to succeed in combining a lifelong interest in the southern continent and ocean with a professional scientific career. He was not helped in this by the need to live down the "Scout Marr legend" in scientific circles. His Antarctic experiences began in the dying phase of the "Heroic Age" of adventurous personal enterprise and ended at a time when these same activities, often no less adventurous, had largely become a routine government commitment. During the Second World War the rapid transition from one age to another was not easy for the few who were actively concerned with Antarctic affairs. The part which Marr played during this transition may well come to be regarded as of more far-reaching significance than his biological researches.

While at the University of Aberdeen he was chosen by Sir Ernest Shackleton from

thousands of volunteer Scouts to accompany the *Quest* expedition of 1921-22 to explore the continental coasts of the Weddell Sea and also a number of little-known sub-Antarctic islands. He quickly responded to Shackleton's great qualities of leadership, and was correspondingly loyal and helpful in the performance of all the duties which came his way.

After Shackleton's death in South Georgia, the expedition could not achieve its original most southerly objectives, but much good work was accomplished in South Georgia, Elephant Island, Gough Island, Tristan da Cunha, St Pauls Rocks, and in the Weddell Sea. Marr described his experiences in a popular book, *Into the frozen south* (London, 1923). Frank Wild's book about this adventure, *Shackleton's last voyage: the story of the Quest*, (London, 1923), bears witness to Marr's strenuous activities.

In 1923 he returned to Aberdeen to complete his MA in Classics in 1924 and he was awarded a BSc degree in zoology in 1925. This was a period during which his growing scientific interests clashed with obligations imposed by the expedition. His studies were interrupted by a series of public appearances designed to repay the debts incurred. He had to stand outside cinemas in his Scout uniform when the *Quest* film was being shown and, after each performance, to make a short speech appealing for funds. He hated these publicity drives but accepted them as the only means of gaining support for the work he loved and they eventually achieved their object.

During the summer of 1925 he took part in the British Arctic Expedition jointly organized and led by Grettir Algarsson and Frank Worsley in the Island. Worsley's published narrative, Under sail in the frozen north (London, 1927), describes their adventures. It is of interest to recall this expedition, if only to emphasize the changes that have taken place in the objectives and methods of polar expeditions during the past 40 years. It was characteristic of its period. The original ambitious aim was to reach the North Pole in an airship from Spitsbergen. After countless vicissitudes, they eventually got away with a very different programme: under sail in an ancient brigantine and without the airship, which turned out to be much too costly. Marr (again in Scout uniform) had to collect the ship's stores by a painful series of door-to-door begging visits through the streets of Liverpool. Worsley's diary tells some of the story: "Perfectly inoffensive persons and genial bishops were led astray; a talented popular actress gave us most valuable gifts of potatoes, butter and onions"... "At our approach philanthropists, prosperous merchants, brewers, bakers, publicans and even taxi-drivers fled in all directions . . . the hunting became increasingly difficult." At last "Marr lay aloft and set the topsails". What a wonderful relief it must have been! He was then 22 years old and could no longer be called an amateur sailor: "Heavily-built, dark, five feet ten, with a dour Scots face-like a prize fighter-he was the strongest man on board and our champion at stowing sail." In the end, little exploration or research was accomplished except some minor corrections to the chart in the region between Nordaustlandet and Kvitøya. Seamanship took priority over science, and it was, indeed, no mean achievement to circumnavigate Spitsbergen under sail. Nevertheless, Marr lost no opportunity to put out the townet and dredge. He returned to the Marine Laboratory in Aberdeen and spent a year as a Carnegie Scholar working on his collections. His own contribution was published as an Appendix on zoology in Worsley's book.

In 1927, he was appointed to the staff of the 'Discovery Investigations', an organization which had been set up a few years earlier by the Colonial Office in order to study the biological resources of the Falkland Islands Dependencies, and particularly the biology of southern whales. In this service he took part in three expeditions to the Antarctic: *William Scoresby*, 1928–29, and *Discovery II*, 1931–33 and 1935–37. Most of the work was at sea, but summer surveys and biological collections were made in South Georgia, the South Orkney Islands and South Shetland Islands. The oceanographical work involved a series of long voyages, V- and W-shaped lines of observations between the pack ice and ports of the Falkland Islands, South Africa, Australia and New Zealand. Marr's biological collections made during these voyages were of basic importance. However hard and unpleasant the work, he spared no effort in recording and preserving the material. He became, incidentally, a leading authority on the collection and preservation of marine animals, a task in which he was outstandingly successful and later published valuable guides.

In 1929–31 he was seconded to the British Australian New Zealand Antarctic Research Expedition (BANZARE) organized by Sir Douglas Mawson, in charge of oceanography. It was during this expedition in the *Discovery* that MacRobertson Land, Banzare Coast and Princess Elizabeth Land were discovered. They also visited Archipel Crozet, Archipel Kerguelen, Heard Island and Macquarie Island, adding much to knowledge of these sub-Antarctic islands.

In 1939-40 Marr made a further southern voyage in the whale factory ship *Terje Viken*, this time seconded to the Department of Scientific and Industrial Research, in order to investigate the possible uses of canned or frozen whale meat to augment depleted British war-time stocks of food. The project never really had a fair trial after a high level decision that this mammal meat must be sold by fishmongers and not butchers! Some will still remember the unappetising whalesteaks tainted with stale fish tastes that were later offered for sale.

After the whaling expedition, Marr joined the Navy and saw war service in Scotland, Iceland, South Africa and Ceylon. But when the War Cabinet decided in 1943 to resume the interrupted British activities in the Falkland Islands Dependencies, he was selected as leader of the party which initiated the permanent occupation of this region. He flew home from Ceylon with enthusiasm to take on this unusual naval mission (called by the code name 'Tabarin'). A return to the south was an altogether more congenial prospect than minelaying in the tropics. This was not a happy period for Antarctic research work: the main impetus was strategic and political rather than scientific. Many years were to pass before the growing international rivalry over questions of sovereignty could be brought under control by the Antarctic Treaty of 1959. Operation 'Tabarin' was the forerunner of the 'Falkland Islands Dependencies Survey', now called the 'British Antarctic Survey'. It fell to Marr to play a leading part in bridging the gap between the pre-war British expeditions and the new era of sustained government-sponsored exploration and research. Few men at that time possessed the necessary qualifications for this task.

Considering the speed with which Operation 'Tabarin' had to be mounted (approximately four weeks), the difficulties in obtaining suitable equipment, and the great variety of unsuitable vessels employed in shipping the cargo from England to the Antarctic (most of it had to be transshipped no less than ten times), it is astonishing that the establishment of the first two bases—at Deception Island and Port Lockroy went off as smoothly as it did. Marr was exhausted by this major effort and returned to England in 1945 with his health impaired. However, at the end of the war he was able to resume his zoological work for the 'Discovery Investigations'. After 1949 he continued as a Principal Scientific Officer at the National Institute of Oceanography, an appointment which he held until his death.

One of the outstanding results of Marr's work in the Antarctic was his concentration on the study of the biology of Antarctic krill (*Euphausia superba*), on which baleen whales feed. He experimented with new methods of sampling, fishing deeper nets to catch the eggs and early larval stages. He published his conclusions on these subjects in a major contribution to the *Discovery Reports* (Vol 32, 1962, p 33-464). This work resulted from 17 years of compilation and synthesis. Marr's treatment and interpretations of this huge mass of information are not easy to assess at the present time, but it is certain that his work will long remain a basic source of information and a subject for further investigation and discussion.



J. M. S. Marr sewing sledge harness. "Operation Tabarin."

(Facing p 96)

The survey of the South Orkney Islands carried out during the Second Commission of *Discovery II*, 1931–32, led him to make a careful investigation of the history of these islands. The resulting monograph was also published in the *Discovery Reports* (Vol 10, 1935, p 283–382). His last major work was on the natural history and distribution of the unstalked crinoids of the Antarctic continental shelf and was published in the *Philosophical Transactions of the Royal Society* (Vol 246, Series B, 1963, p 327–79).

Marr attached great importance to a few basic principles of life, always coupled with a sense of humour. He attached importance to setting an example to others, whether in sheer physical effort in adverse conditions, or painstaking labour over preserving and labelling specimens, or just straight dealing in ordinary every-day things. Sometimes he worried too much about his responsibilities, but nothing would deter him from the careful and painstaking investigations upon which he embarked.

In 1937 Marr married Dorothea Helene, fourth daughter of the late G. F. Plutte, who survives him with five of their six children. B. B. R.

JAMES BUCKLAND MAWDSLEY, MBE, Director of the Institute for Northern Studies, University of Saskatchewan, died on 3 December 1964. He was born in Italy, on 22 July 1884, but his parents moved to Saskatchewan soon afterwards and he went to school there. His training at McGill University was interrupted by the First World War but he graduated there in mining engineering in 1921 and three years later obtained his doctorate of philosophy degree in geology at Princeton University. He immediately joined the Geological Survey of Canada and worked for the next five years on the regional geology of north-west Quebec.

In 1929 he became professor, and head, of the Department of Geology at the University of Saskatechwan and Dean of Engineering and Director of the Institute for Northern Studies in 1961. He resigned his appointment as Dean in 1963.

Mawdsley published a large number of scientific papers and held many honorary posts in learned societies during his distinguished career.

ANDRÉ RENAUD, the Swiss glaciologist, was born on 14 August 1904 and died on 8 June 1964. He received his education at the Gymnasium and University of Lausanne and became a science teacher at Yverdon. From 1945 he taught chemistry and physics in the Kantonschule of the Vaud and in 1961 was appointed teacher of physics in the Gymnasium in Lausanne, where he was working at the time of his death.

He accompanied Professor P.-L. Mercanton to Greenland and Jan Mayen in 1929. For fifteen years he was secretary and treasurer of the Gletscherkommission of the Schweizerischer Naturforschenden Gesellschaft and devoted his time and energies to the annual glacier observations of the Swiss Alps. He was concerned in the preparations for the Expédition Glaciologique Internationale au Grønland (EGIG) and paid visits to Greenland during its activities. In 1964 he visited Thule at the invitation of American glaciologists to investigate the variation of tritium content of the ice by a new method developed in the Physikalische Institut of the University of Bern.

Major-General HJALMAR RIISER-LARSEN, pioneer of Norwegian civil and polar aviation, and Chief of the Royal Norwegian Air Force during the Second World War, died in København on 3 June 1965 in his 74th year. He was commissioned as a naval officer in 1912, and, when the Norwegian Naval Air Arm was created three years later, became one of the first pilots to be trained. He also held the first airline pilot's licence in Norway. In 1919 he was appointed the first director of the Norwegian Navy's own aircraft factory at Horten. Two years later, after training in England, he became the

first Norwegian to hold a dirigible pilot's licence. From 1921 to 1927 he was chief secretary for the Aviation Council of the Norwegian Ministry of Defence.

His introduction to polar aviation came in 1925 when he captained one of the two seaplanes in which Amundsen and Lincoln Ellsworth attempted to reach the North Pole. The two aircraft had to make a forced landing in lat 88° N and one was abandoned while Rijser-Larsen piloted the other, with all the members of the expedition on board, back to Spitsbergen. A year later, he was chief pilot of the dirigible Norge during its trans-Arctic flight. In 1928 he led an unsuccessful expedition in search of Amundsen who had disappeared in the Arctic Ocean while searching for Nobile and his dirigible Italia. He next turned to the Antarctic and, in 1929-30 and 1930-31, made pioneer flights in the area between the Weddell Sea and Enderby Land as a member of Norvegia expeditions promoted by Consul Lars Christensen. During the 1929-30 expedition, of which he was leader, Bouvetøya was photographed from the air followed by an air reconnaissance of western Enderby Land and the discovery, and rough charting from the air, of Kronprins Olav Kyst and Kronprinsesse Märtha Kyst. The next year, Prinsesse Ragnhild Kyst was discovered, roughly charted from the air and claimed for Norway; an air reconnaissance was also made of Kronprins Olav Kyst. His third Antarctic venture, in 1932-33, was less well conceived and nearly ended in disaster. He planned to sledge along the sea ice lying off the continent between Enderby Land and the Weddell Sea. Only two days after the start, the ice broke up and the party was fortunate to be rescued.

In 1933 he was appointed director of Det Norske Luftfartselkap (DNL) and held this position until the outbreak of the Second World War. He spent a year as Norwegian Naval Attaché in Washington before becoming commanding officer of the Royal Norwegian Air Force in England, 1944-46. In 1947 he became planning officer to the Scandinavian Airlines System (SAS) and a year later managing director of Norwegian Air Lines, one of the three companies of SAS.

His autobiography, Femti år for kongen, was published in 1958 (Oslo), and he was co-author of Great Norwegian expeditions (Oslo, 1954). He wrote a number of papers on his Arctic and Antarctic experiences and one book Mot ukjent land: Norvegia-exspedisjonen, 1929-30 (Oslo, 1930).

IVAR SKARLAND, the Alaskan archaeologist, was born in Norway in 1899 and died on I January 1965. After graduating in forestry at Steinkjer, Norway, he worked in Canadian forests until 1928 when he went to the Alaska Agricultural College and School of Mines, now the University of Alaska. He then studied archaeology at Harvard University and returned to become associate professor at Alaska University in 1942. Apart from war service, he spent the rest of his career engaged in archaeological studies and field work in Alaska.

Lt Col ARTHUR NIALL RANKIN, the British nature photographer, author and traveller, died while on a visit to Bechuanaland on 7 April 1965, aged 60. He was educated at Eton and Christ Church, Oxford. He travelled extensively and attained an international reputation as a still and ciné photographer.

He joined the Oxford University Arctic Expedition, 1924, as bird photographer. In Spitsbergen he was one of the first to use a "hide" for photographing Arctic birds, securing some pictures which were at that time unique. Especially noteworthy among his Arctic photographs were his series illustrating Ivory Gulls (Spitsbergen), Pinkfooted Geese (Iceland), Sabine's Gull (Alaska) and Brent Geese (Canada).

In 1946-47 he visited South Georgia, an island chosen because of the great concentrations of Antarctic bird and animal life to be found there. With two companions from the Shetland Islands, he went south in a whale factory ship, taking as deck cargo his own 42 ft converted Royal National Lifeboat, *Albatross*. With this independent means of transport, they were able to spend the whole breeding season in this naturalist's

paradise. Rankin described their experiences in Antarctic isle. Wild life in South Georgia (London, 1951), a book full of infectious enthusiasm and lavishly illustrated with some of the finest photographs of penguins, albatrosses and seals ever taken.

FRANK DEBENHAM, Emeritus Professor of Geography at Cambridge University, Founder and first Director of the Scott Polar Research Institute, died in Cambridge on 23 November 1965, aged 81 years, after this issue went to press. A full notice will appear in the next issue of the *Polar Record*.