

AIR SERVICES TO THE NORWEGIAN ARCTIC

[Summarised from an article in *The Times*, 3 July 1947.]

Norway, with over 1000 miles of coastline and an interior which presents many obstacles to communications, is now operating a daily domestic air service which reaches from Stavanger in the south to Tromsø in the north. Short Sandringham flying boats, able to carry thirty-seven passengers, have been used since 2 June 1947 and are proving very satisfactory. They are equipped with radar and other navigational aids and blind approach beacon systems are being installed at Stavanger and Harstad.

The route goes from Sola, the large landplane and flying boat base at Stavanger which is used by the international lines, to Bergen, thence to Oslo and finally to Tromsø. The total distance covered is 1170 miles. The flying boats take a little over five hours to fly the 937 miles from Oslo to Tromsø. The flight can be continued by Junkers 52 seaplane, three times a week, to Hammerfest and Kirkenes, taking another four hours from Tromsø to Kirkenes. Next year Norwegian Air Lines expect to have more aircraft and hope to open a summer service across the Arctic Ocean to Svalbard.

ICE ATLAS OF THE NORTHERN HEMISPHERE

[Review of H. O. Publ. No. 550. v + 106 pp., maps and bibliography. 24½ × 24½ in. Published by the Hydrographic Office, United States Navy, under the authority of the Secretary of the Navy, Washington, D.C., 1946 \$8.00.]

This ice atlas has been compiled as a guide to ice conditions in the Northern Hemisphere. Its usefulness for this purpose is beyond question. It will also prove of considerable value to all who are interested in Arctic sea- or river-ice from whatever point of view. The preparation of the charts which comprise the atlas represents a remarkable achievement in compilation. The extent of the bibliography, citing nearly 1700 references, gives some indication of the range of observations and records which have been brought together and presented in cartographic form.

The atlas was begun in 1942 by Dr John C. Weaver, at the American Geographical Society of New York, under the auspices of the Division of Geography and Cartography of the United States Department of State. It was continued in 1943 under the State Department until the spring of 1946, when it was transferred to the Hydrographic Office of the Navy. Fortunately at this time Dr Weaver was commissioned in the Navy and appointed to the Hydrographic Office, where the atlas was completed under his guidance. Dr Weaver was assisted by Mr S. W. Boggs, Geographer of the Department of State, Mr C. B. Hitchcock of the American Geographical Society and Dr L. M. Gould, President of Carleton College, who was Chief of the Arctic Section of the Arctic, Desert and Tropic Information Center of the United States Army Air Forces Headquarters.