

## OBITUARY

## HARALD ULRIK SVERDRUP—1888-1957

PROFESSOR H. U. SVERDRUP died suddenly on 21 August 1957. He was born in Sogndal, Norway, in 1888, and was educated at the University of Oslo. In 1911 he became assistant to Professor Vilhelm Bjerknes with the special task of working on the application of hydrodynamics to oceanography and meteorology. He spent the years 1913-17 in Leipzig where Bjerknes had become a professor at the University. In 1917 he took his Ph.D. at the University of Oslo on the thesis: "Der Nordatlantische Passat."

In 1918 he joined the expedition with the *Maud*, being in charge of the scientific work, and spent six years in the Arctic. The aim of this expedition was, as with the *Fram*, the drift over the Polar Sea. However, during the whole of the expedition the ship did not succeed in getting out of the shelf area. In spite of this and the insufficient scientific outfit the results achieved were impressive. Nearly all branches of geophysics were represented in the programme which was carried through with great tenacity and devotion, for the most part solely by Sverdrup. His comprehensive knowledge, together with his ingenious method of approach to the relevant problems, proved themselves in the years following upon the return of the expedition, when he had the task of working up alone all the enormous material which had been collected. Among the numerous and, in part, essential works prepared by him in those years may be mentioned *Dynamics of Tides of the North-Siberian Shelf* and *The Wind-Drift of the Ice on the North-Siberian Shelf*.

In 1931 Sverdrup was appointed Research Professor of Geophysics in Bergen. In the same year he joined the Wilkins-Ellsworth North Polar submarine expedition in the *Nautilus* as chief scientist. Two years later he spent the summer months on the Isachsen Ice Field in Spitsbergen together with his friend, Professor H. W. Ahlmann. The principal work here was the study of the heat exchange of a snow surface, a research which assumed a fundamental character within this particular field of glaciology.

In 1936 he accepted the offer of a directorship of the Scripps Institution of Oceanography, La Jolla, California, together with a professorship of oceanography at the University of California. He had now to suspend the work on the problems of the Arctic and the following 12 years were mainly devoted to oceanography. For some years Sverdrup, with two collaborators, had been engaged in writing *The Oceans, their Physics, Chemistry and General Biology*, a standard work for oceanographers.

In 1946 Sverdrup accepted the directorship of the Norsk Polarinstitut, Oslo, and assumed office in 1948. His first task was the organization of the Norwegian-British-Swedish Antarctic Expedition, 1949-52. He also accompanied the relief vessel to Maudheim at the end of 1950.

From now on he was in an ever-increasing degree called upon as the organizer and promoter of Governmental and public projects and commissions. His exceptional capacity for work and his ability as a leader and organizer became apparent during these years. Among other positions he was the leader of the Norwegian Governmental India project, and Dean of his faculty at the University of Oslo but, in spite of his ever-increasing responsibilities, he managed to proceed with his own research work, the working up of his earlier observations as well as the solution of problems of essentially theoretical character.

As an individual H. U. Sverdrup was extremely sociable; his was an inspiring character. At all times, notwithstanding his numerous responsibilities, he seemed to have time to spare for any problems submitted to him.

Through Harald Ulrik Sverdrup's death geophysics has lost one of her most many-sided, original and outstanding characters.

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