

ARTICLES IN REVIEW

SOUNDING PROFILES BETWEEN FIJI, CHRISTMAS AND TAHITI ISLANDS

by G. S. RITCHIE

Deep-Sea Research, 1958, Vol. 5, pages 162 to 168
Pergamon Press, Ltd., London

In this article the author, a leading hydrographer (*), describes three sounding profiles of a total length of 4,500 nautical miles made in 1956 by H.M.N.Z.S. *Lachlan*, the Royal New Zealand Naval Survey Ship. These profiles, which were carried out in a little-known area, concern the following regions :

Profile 1. — Fiji to Christmas Island

Profile 2. — Christmas Island to Tahiti

Profile 3. — Tahiti to Fiji.

An attempt was made to classify the different undersea areas registered by the acoustic sounder. The adopted classification was that used by Koczy in 1954, and included *plains*, *hill districts*, and *volcanic tectonic* regions. The author added an extra category, *mountainous districts*, when features rose to more than 5 000 ft above the general level of the sea bed.

Soundings were obtained with the help of an asdic set, type 128 C.V.S. with a type A/S 49 recorder.

The article is accompanied by plans showing features of the profiles to a scale of 1/10 000 000 (scale of the General Bathymetric Chart of the Oceans) with enlargement of the vertical scale.

The ship's position was fixed by astronomical observations to an accuracy of 2 sea miles.

The names given to features are those suggested for the Pacific by the British National Committee on Ocean Bottom Features (Wiseman and Ovey, 1955).

Depths below the surface are stated in fathoms, but the heights of features above the sea bed are given in feet.

(*) See *Hydrography in the Royal Navy*, p. 166, by the same author.

OCEANOGRAPHIC RESEARCH DURING THE INTERNATIONAL GEOPHYSICAL YEAR

by A. GOUGENHEIM

« La Nature », Paris, No. 3293, September, 1959

Ingénieur Général Gougenheim, Director of the French Naval Hydrographic Service and President of the French branch of the Subcommittee on Physical Oceanography connected with the I.G.Y., was particularly well qualified to describe the important oceanographical assignments carried out throughout the world during the International Geophysical Year to the readers of *La Nature*.

After describing how the International Geophysical Year 1957-1958 came into being the author mentions the extensive programme of oceanographical research in various fields: oceanic circulation, variations in mean sea level, detection of very-long-period swells, measurement of waves and swells, bathymetric soundings, sampling of sea water to determine carbon 14 and tritium content, radioactivity measurements, determination of CO₂ content, gathering of plankton and marine organisms, etc.

As regards oceanic circulation and fluctuations in sea level in particular, the article outlines the methods used and results obtained.

The accomplishments in oceanographic research will not end with the IGY because, as the author mentions, a special Committee has been created to further international oceanographic cooperation indefinitely; this Committee functions in liaison with UNESCO, which has moreover formed a consultative Committee for marine science with aims corresponding to those of the Special Committee.

HYDROGRAPHY IN THE ROYAL NAVY

by Captain G. S. RITCHIE, D.S.C., F.R.I.C.S., R.N.

The Transactions of the Society of Engineers (Incorporated)
Abbey House, Westminster, London, S.W. 1, December, 1958

This article is the text of a paper on hydrography delivered by Captain Ritchie to the Society of Engineers of London. No one could be better qualified than the author to make this communication. Captain Ritchie has had extensive experience in hydrography; entering the Royal Navy in 1932, he rapidly became familiar with the subject. He had a very distinguished career with the Navy during the second World War, and achieved special recognition for his work on the Normandy beaches. After the war he commanded H.M.S. *Challenger*, which has carried out worldwide hydrographic and oceanographic surveys. He is at present Assistant Hydrographer of the Navy.

The paper discusses the many responsibilities of this important service; it describes how modern surveys are carried out, the various difficulties encountered and how they are overcome. Reference is made to the new electronic aids and an indication given of the future in this field of work.
