

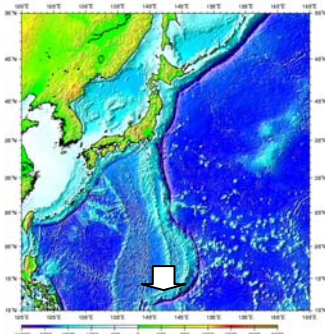
# World's Greatest Depth in the Challenger Deep (Mariana Trench)

By Kunio Yashima, Japan Hydrographic Association

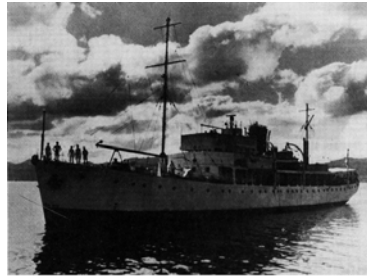
Japanese S/V TAKUYO carried out precise submarine topographic survey by using a Narrow Multi-Beam Echo Sounder (Sea Beam) for about 500 miles in sounding lines covering an area of about 140km<sup>2</sup> in Challenger Deep in Mariana Trench for three days from 17 to 19 February 1984.

Correction for sound velocity was made with the data on water temperature and salinity obtained by observations carried out in the area using the CTD system(-4,500m). Employing the data thus obtained, a bathymetric chart covering the area was prepared, and it was found that the Challenger Deep is flat-bottomed axial pocket about one nautical mile in N-S direction, four n.m.in E-W direction, with trend about 075°.

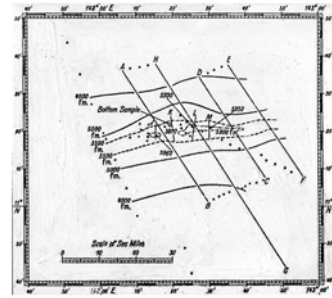
TAKUYO's survey results were examined by some GEBCO experts including Dr. Robert Fisher of SIO and confirmed her record as world's deepest depth instead of 11,034m by VITYAZ(1957) shown in GEBCO 5.06 at the 1993 GEBCO Guiding Committee .



Location of Challenger Deep



HMS Challenger VIII



Survey of Challenger Deep in 1951



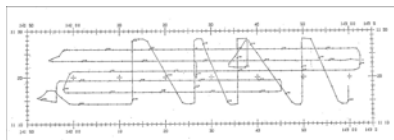
Challenger voyage of 1950 to 1952



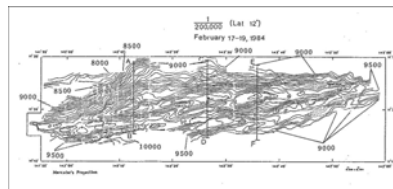
HMS Challenger visited JHOD in 1952



TAKUYO (2,600ton), JHOD, JCG



Tracklines of TAKUYO



Bathymetric Chart by TAKUYO



1993 GEBCO GC at SIO



## World's deepest depth in Challenger Deep in Mariana Trench by GEBCO

Depth:	10,920±10m
Position:	11°22.4'N, 142°35.5E hybrid (NNSS, Loran-C, OMEGA)
Soundings:	Seabeam
Ship:	Japanese S/V TAKUYO, JHOD, JCG
Scientists:	Hideo Nishida, Kenji Muneta and Tadashi Kondo
Year:	1984