INTERNATIONAL HYDROGRAPHIC ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

IHO/IOC Form No. 1

UNDERSEA FEATURE NAME PROPOSAL

(See NOTE overleaf)

Ocean or Sea Northwest Pacific Ocean Name proposed Tomoda Seamount

Coordinates : **A** - of midpoint or summit : Lat. 24º25' N , Long. 154º30' E

_____ kilometres in _____ direction from _____

and/or **B** - extremities (if linear feature) :

Lat. _____ } to { Lat. _____
Long. _____ } to { Long. _____

Description (kind of feature) : seamount

Identifying or categorizing characteristics (shape, dimensions, total relief, least depth, steepness, etc.):

This seamount is one of constituents of the Marcus-Wake Seamount Group in the Northwest Pacific Ocean. It has a small flat-topped summit with a water depth of about 800 m and rises about 4700 m above a surrounding abyssal plain. Its basal area is about 65×40 km^2.

Associated features : Minami-Tori Shima Island (a.k.a. Marcus Island)

Chart reference :

Shown with name on chart No. Japanese Chart W1004B (to be issued on May, 2008) and W1009 (to be issued on June, 2008)

Shown but not named on chart No. Japanese Chart W48

Not shown but within area covered by chart No. _____

Reason for choice of name (if a person, state how associated with the feature to be named) :

Dr. Yoshibumi Tomoda was a celebrated marine geophysicist of Japan, who had built up the basis of marine geophysical surveys in Japan, especially gravity and geomagnetic observations. His greatest contributions to marine geosciences are development of shipboard gravity meters and compilation of gravity anomalies maps of the Northwest Pacific region. The Marcus-Wake Seamount Group including this seamount was one of targets of his studies. See more details for the attached CV.

Discovery facts :

Date May 1998 – March 1999 by (individuals or ship) The Japanese survey vessel "Takuyo"

By means of (equipment) : Multibeam Echo Sounder SeaBeam 210

Navigation used : GPS

Estimated positional accuracy in nautical miles : 0.054 miles (100 m)

Description of survey (track spacing, line crossing, grid network, etc.) : Swath bathymetric data were acquired with W-E trending survey lines spacing 10 miles and lines spacing 1.25 miles in the summit region. Supplemental data were also acquired in 2006 and 2007, using multibeam echo sounder SeaBeam 2112 aboard survey vessels "Takuyo" and "Shoyo".

Nature and repository of other survey activities (dredge samples, cores, magnetics, gravity, photographs, etc.) : Hydrographic and Oceanographic of Japan has dredged samples and geomagnetic and gravity data

Supporting material : enclose, if possible, a sketch map of the survey area, profiles of the features, etc., with reference to prior publication, if any : bathymetric map (Fig.2) and map of survey lines (Fig.3)

Submitted by : Hydrographic and Oceanographic of Japan (HODJ) and Ocean Research Institute (ORI), the University of Tokyo

Date : 18 April 2008

Address : (HODJ) 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan
(ORI) 1-15-1 Minamidai, Nakano-ku, Tokyo 104-0045, Japan

Concurred in by (if applicable) : _____

Address : _____

National Authority (if any) : Japanese Committee on Undersea Feature Names

Address : 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan

NOTE : This form should be forwarded, when completed :

a) **If the undersea feature is located in territorial waters** :-
to your "National Authority for Approval of Undersea Feature Names" or, if this does not exist or is not known, either to the International Hydrographic Bureau or to the Intergovernmental Oceanographic Commission (see addresses below);

b) **If the undersea feature is located in international waters** :-
to the International Hydrographic Bureau or to the Intergovernmental Oceanographic Commission, at the following addresses :

International Hydrographic Bureau
4, quai Antoine 1er
B.P. 445
MC 98011 MONACO CEDEX
Principality of MONACO
Fax: +377 93 10 81 40
E-mail: info@ihb.mc

Intergovernmental Oceanographic Commission
UNESCO
Place de Fontenoy
75700 PARIS
FRANCE
Fax: +33 1 45 68 58 12
E-mail : info@unesco.org

Personal history of the late Prof. Dr. Yoshibumi Tomoda

Given name: Yoshibumi
Family name: Tomoda

1926 Born in Tokyo, Japan
2007 Diseased

Education:
1950 B.S. in geophysics, University of Tokyo

Professional carrier:
1950 Assistant Professor, College of Arts and Sciences, University of Tokyo
1962 Associate Professor, Ocean Research Institute, University of Tokyo
1969 Professor, Ocean Research Institute, University of Tokyo
1986 Professor, School of Marine Science and Technology, Tokai University
1992 Member of the Japan Academy
1996 retired

Remarks:
Prof. Dr. Tomoda was a celebrated marine geophysicist and had been worked for University of Tokyo and Tokai University for more than 45 years. In early 1960's he developed the shipboard gravity meter. Using it, he carried out gravity observations in the Western Pacific Ocean and in 1982 published the gravity anomalies maps with the area ranging from 20° to 47° N and from 100° to 160°E. It revealed the characteristics of gravity anomalies in the Western Pacific Ocean. He also contributed to interpretation of observed gravity anomalies. He estimated thickness difference of oceanic lithosphere based on gravity anomaly data. This showed that gravity anomalies data could provide evidence to estimate structure of not only crust but also lithosphere, which controls tectonics of seafloor. He also played important role in education. Through his enthusiasm and mentoring skills, he had fostered the careers of many young researchers.

Selected publications:

Tomoda, Y., H. Kanamori (1962), Tokyo surface ship gravity meter a-1, *J. Geod. Soc. Japan*, 7, 116-145.

Tomoda, Y., K. Ozawa, J. Segawa (1968), Measurement of gravity and magnetic field on board a cruising vessel, *Bull. Ocean Res. Inst., Univ. Tokyo*, 3, 1-170.

Tomoda, Y. (1973), Maps of Free Air and Bouguer Gravity Anomalies in and around Japan, *Univ. Tokyo Press, Tokyo*.

Tomoda, Y., (1973), Gravity Anomalies in the Pacific Ocean, *In The Western Pacific: Island Arcs, Marginal Seas, Geochemistry edited by Coleman, P. J., Univ. Western Australia Press*, 5-20.

Tomoda,Y., (1974), Reference Book for Gravity, Magnetic and Bathymetric Data of the Pacific Ocean and Adjacent Seas, 1963-1971, *Univ. of Tokyo Press*, 158 pp.

Tomoda, Y., H. Fujimoto (1980), Free-air and Bouguer gravity anomaly in the West Pacific calculated from sea gravity data obtained by T.S.S.G., *J.Geod. Soc. Japan*, 26, 258-266.

Tomoda, Y., H. Fujimoto (1981), Gravity anomalies in the Northwestern Pacific and their geophysical interpretation, *Proceedings of the Japan Academy. Ser. B: Physical and Biological Sci.*, 57, 359-361.

Tomoda, Y. H. Fujimoto (1982), Maps of gravity anomalies and bottom topography in the Western Pacific and reference book for gravity and bathymetric data, *Bull. Ocean Res. Inst., Univ. Tokyo*, 14, 1-158.

Tomoda, Y., H. Fujimoto, T. Matsumoto (1983), Thickness difference of the lithosphere at the fracture zone and horizontal driving force of the plate, *J. Phys. Earth*, 31, 173-181.

Tomoda, Y. (2003), Origin of negative gravity anomaly landward of trench junction, *Proceedings of the Japan Academy, Ser. B*., 79B, No. 2, 51-57.

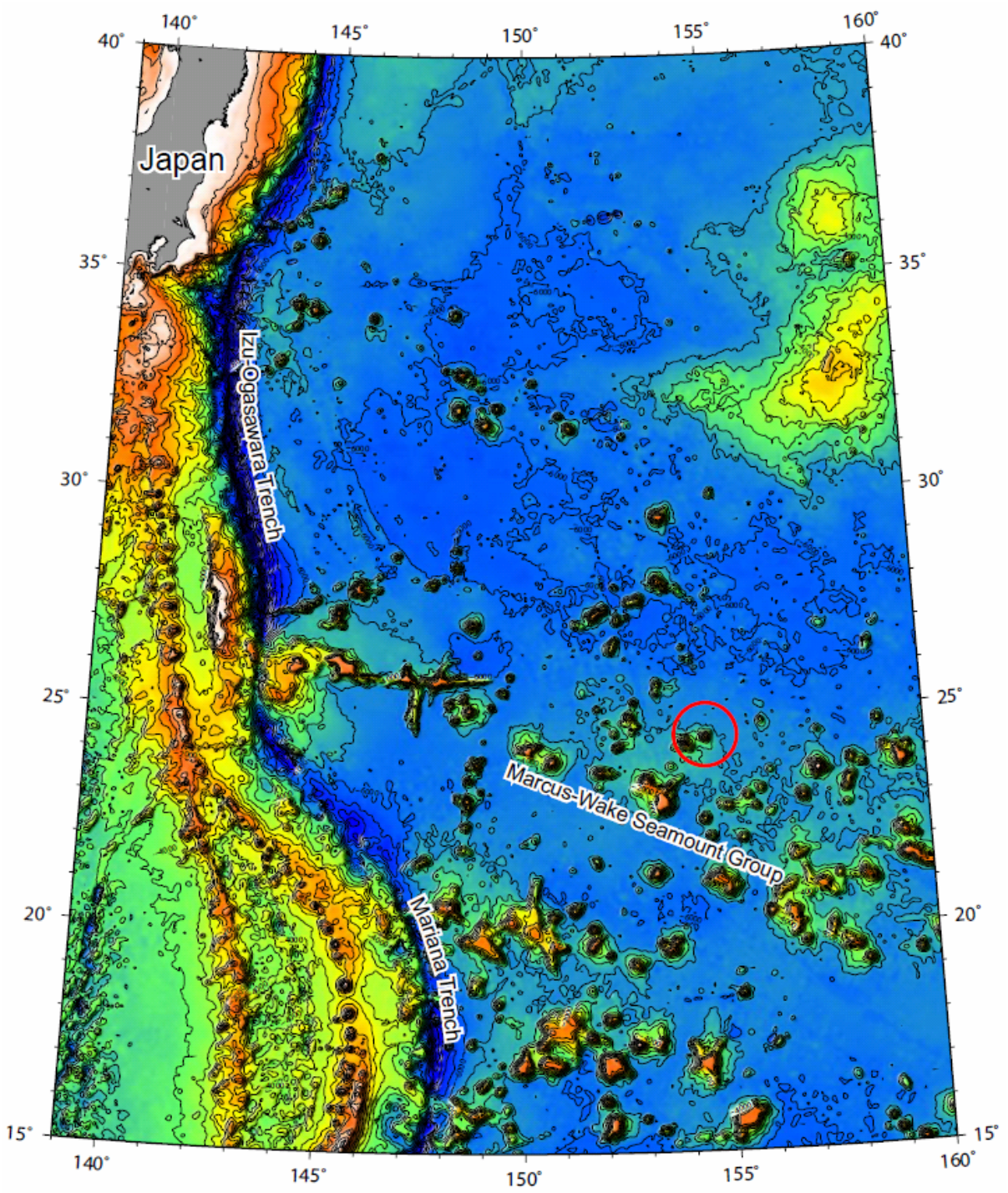

Fig. 1. Index map for Tomoda Seamount, using the bathymetry data of ETOPO-2. The red circle indicates Tayama Guyot.

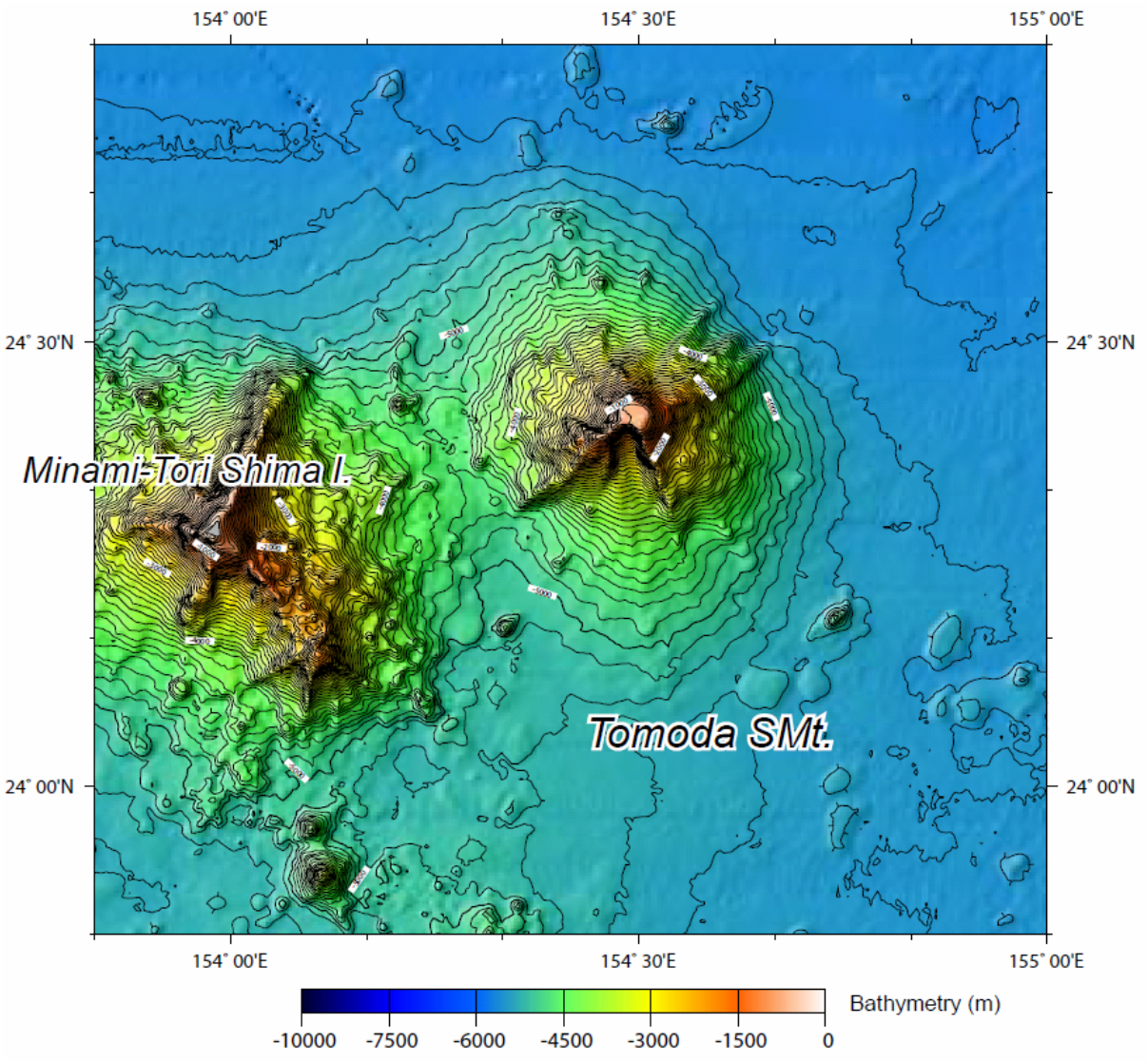

Fig. 2. Bathymetry of Tomoda Seamount. Contours in 100 m.

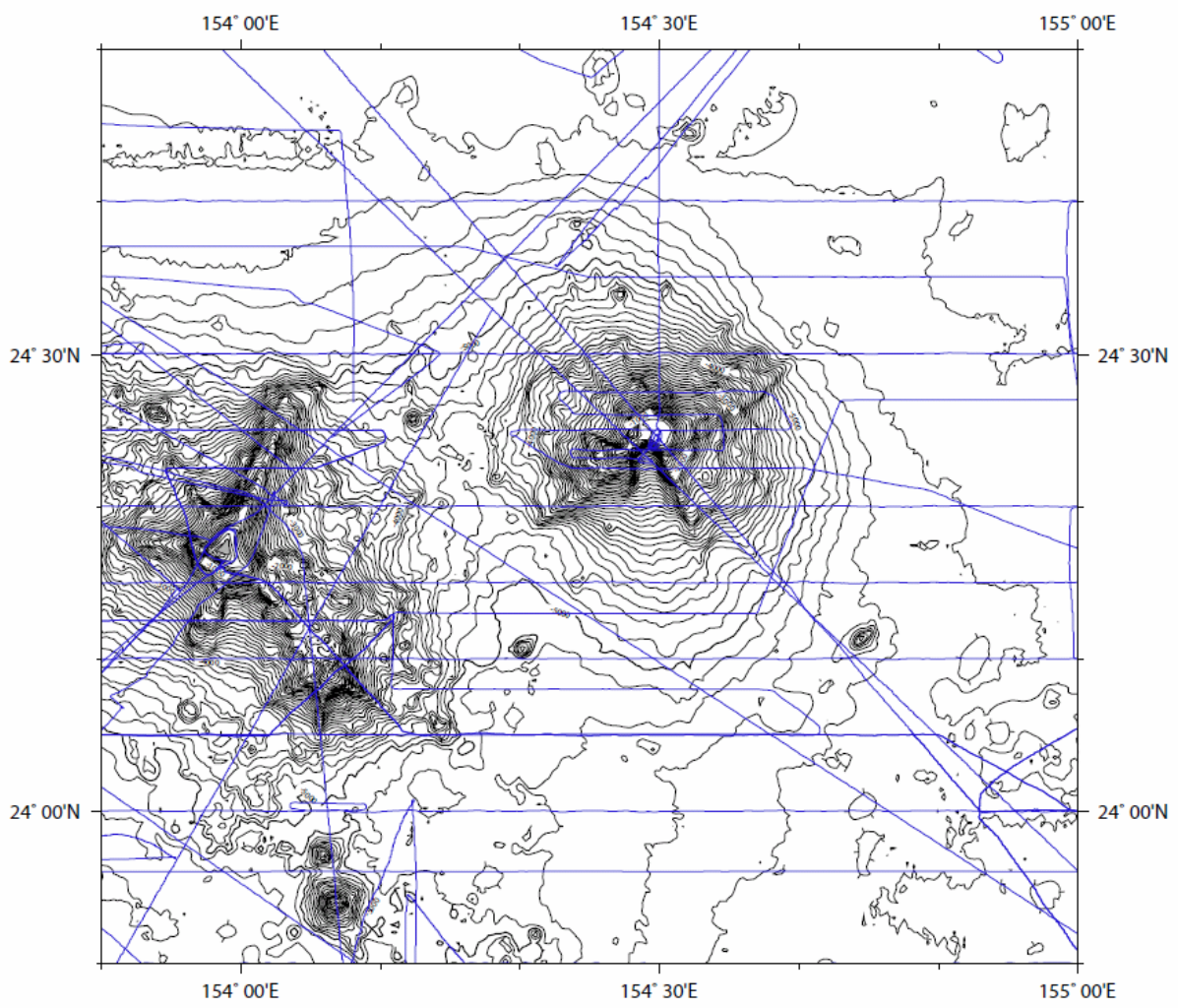

Fig. 3. Bathymetry of Tomoda Seamount, showing the track lines. Contours in 100 m.