## INTERNATIONAL HYDROGRAPHIC **ORGANIZATION**

## INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

## <u>UNDERSEA FEATURE NAME PROPOSAL</u> (See IHO-IOC Publication B-6 and **NOTE** overleaf)

Note: The boxes will expand as you fill the form.

| Name Proposed: Kita-Hiyoshi Sea                             |                  |   | mount Ocean or Sea:  |                           |          | Sea:                       | N                           | /A                                     |             |                            |  |  |
|---|------------------|---|--|---------------------------|----------|----------------------------|-----------------------------|--|-------------|----------------------------|--|--|
|   |                  |   |  |                           |          |                            |                             |  |             |                            |  |  |
| Geometry that best of                                       | defines the fea  |   |  |                           |          |                            |                             | ·                                      |             |                            |  |  |
| Point   | Line             |   | n<br>  | Multiple points           | N        | Multiple lines*            |                             | Multiple polygons*                     |             | Combination of geometries* |  |  |
|   |                  | Yes   |  | <u> </u>                  | <u> </u> |                            |                             |  |             |                            |  |  |
| * Geometry should be  | e cieariy aistir | iguisnea wn   |  |                           |          | Delow.                     |                             |  |             |                            |  |  |
|   |                  |   |  | Lat. (e.g. 63°32.6        | N)       |                            |                             |  |             | 6°21.3′W)                  |  |  |
|   |                  |   | 23°53.06'N<br>23°52.62'N   |                           |          |                            |                             | 141°41.99'E<br>141°44.13'E             |             |                            |  |  |
|   |                  |   | 23°49.20'N   |                           |          |                            |                             | 141°49.28'E                            |             |                            |  |  |
|   | Coordinates:     |   |  | 23°43.80'N                |          |                            |                             |  | 141°52.37'E |                            |  |  |
| Coordinates:  |                  |   |  | 23°42.05'N                |          |                            |                             |  | 141°45.47'E |                            |  |  |
|   |                  |   |  | 23°39.72'N                |          |                            |                             |  | 141°36.99'E |                            |  |  |
|   |                  |   | 23°43.29'N<br>23°52.48'N   |                           |          |                            |                             | 141°32.95'E<br>141°36.12'E             |             |                            |  |  |
|   |                  |   | 23°53.06'N   |                           |          | 141 36.12 E<br>141°41.99'E |                             |  |             |                            |  |  |
| i   |                  |   |  |                           |          |                            |                             | ······································ |             | <u></u>                    |  |  |
|   | Maximu           | Maximum Depth:  |  | 2,094 m                   |          | Steepn                     | oness :                     |  | N/A         |                            |  |  |
| Feature   |                  | j   |  |                           |          | Shape                      |                             |  | Irregular   |                            |  |  |
| Description:  | Total Re         | <u> </u>  |  | ,722 m                    |          | Dimen                      |                             |  |             |                            |  |  |
|   |                  |   |  |                           |          |                            |                             |  |             |                            |  |  |
| Associated Featur   | es:              | Eas   | t Ma   | riana Ridge, Nak          | a-Hi     | yoshi Kr                   | noll                        |  |             |                            |  |  |
|   |                  |   |  |                           |          |                            |                             |  |             |                            |  |  |
|   |                  |   |  | Shown Named on Map/Chart: |          |                            |                             | Japanese chart #6723 (to be            |             |                            |  |  |
| Chart/Map References:                                       |                  |   |  |                           |          |                            | published in July 26, 2019) |  |             |                            |  |  |
|   |                  |   | Shown Unnamed on Map/Chart:  |                           |          |                            |                             |  |             |                            |  |  |
|   |                  | With  | Within Area of Map/Chart:  |                           |          |                            |                             |  |             |                            |  |  |
|   |                  |   |  |                           |          |                            |                             |  |             |                            |  |  |
| Reason for Choice of Name (if a                             |                  |   | Named after the Japanese fishery boat "Hiyoshi-maru" which discovered    |                           |          |                            |                             |  |             |                            |  |  |
| person, state how associated with the feature to be named): |                  |   | this feature. "Kita" means "North" in Japanese. This undersea feature    |                           |          |                            |                             |  |             |                            |  |  |
|   |                  |   | name was accredited by JCUFN in 1977. This feature was also accredited   |                           |          |                            |                             |  |             |                            |  |  |
|   |                  |   | by SCUFN, probably adopted from INT 510 (no specific date of approval    |                           |          |                            |                             |  |             |                            |  |  |
|   | ıs yı            | is given).  |  |                           |          |                            |                             |  |             |                            |  |  |
|   |                  | This  | : feat   | ure is located on         | the      | Fast Ma                    | riana                       | Ridae w                                | hich is     | s in fact the              |  |  |
|   |                  | This feature is located on the East Mariana Ridge, which is in fact the volcanic front of the Mariana Arc. Because of the significance of its |  |                           |          |                            |                             |  |             |                            |  |  |
|   |                  |   | tectonic setting, many scientific papers were produced, dealing with the |                           |          |                            |                             |  |             |                            |  |  |
|   |                  |   | volcanoes along the East Mariana Ridge, including this feature. Among    |                           |          |                            |                             |  |             |                            |  |  |
|   | thes             | these, the following papers are noted:  |  |                           |          |                            |                             |  |             |                            |  |  |
|   | •                | Bloomer S.H., et al., 1989, Physical volcanology of the submarine   |  |                           |          |                            |                             |  |             |                            |  |  |
|   |                  | Mariana and Volcano arcs, <i>Bulletin of Volcanology</i> , 51, 210-224.   |  |                           |          |                            |                             |  |             |                            |  |  |
|   | •                | ,   |  |                           |          |                            |                             |  |             |                            |  |  |
|   |                  | mineralization along the active Mariana and southern Izu-Bonin arc  |  |                           |          |                            |                             |  |             |                            |  |  |
|   | <u> </u>         | system, western Pacific, Journal of Geophysical Research, 113,  |  |                           |          |                            |                             |  |             |                            |  |  |

|                                   | <ul> <li>B08S14, DOI: 10.1029/2007JB005432.</li> <li>Naka, J., 1998, An outline of the Shinkai 2000 dive at the Ko-Hiyoshi Seamount, Northern Mariana arc, JAMSTEC Journal of Deep Sea Research, 14, 157-162 (in Japanese with English abstract)</li> <li>Nishizawa A., et al., 2003, Ocean Bottom Seismographic Observation at Minami-Hiyoshi Seamount at the Northern End of the Mariana Arc, Report of Hydrographic and Oceanographic Researches, 39, 3-21 (in Japanese with English abstract)</li> <li>Stern R.J., et al., 1984, Unzipping of the volcano arc, Japan, Tectonophysics, 102, 153-174.</li> <li>Note that the undersea feature names in the Japanese chart #6723 largely consists of two major categories. One is relevant to season names or seasonal/annual event in Japan, and the other is to discovering ship (all are fishery boats except one). The names belonging to the former</li> </ul> |   |  |  |  |  |  |
|-----------------------------------|--|---|--|--|--|--|--|
|                                   | category were mostly accredited by JCUFN in 1994.  |   |  |  |  |  |  |
| Discovery Facts:                  | Discovery Date: Discoverer (Individual, Ship):   | Jan. 1993<br>Japanese survey vessel "Takuyo"  |  |  |  |  |  |
|                                   |  |   |  |  |  |  |  |
|                                   | Date of Survey:  | Jan. and Oct. 1993  |  |  |  |  |  |
|                                   | Survey Ship:   | Japanese survey vessel "Takuyo"   |  |  |  |  |  |
|                                   | Sounding Equipement:   | Multibeam echo sounder  |  |  |  |  |  |
| Supporting Survey Data, including |  | Seabeam   |  |  |  |  |  |
| Track Controls:                   | Type of Navigation:  | GPS with Selective Availability   |  |  |  |  |  |
|                                   | Estimated Horizontal Accuracy, in nautical miles (M):  | 0.054 nm (100 m)  |  |  |  |  |  |
|                                   | Survey Track Spacing:  | 6 nm  |  |  |  |  |  |
|                                   | Supporting material can be submitted as Annex in analog or digital form.   |   |  |  |  |  |  |
|                                   |  |   |  |  |  |  |  |
|                                   | Name(s):   | JCUFN   |  |  |  |  |  |
|                                   | Date:  | June 4, 2019  |  |  |  |  |  |
|                                   | E-mail:  | ico@jodc.go.jp  |  |  |  |  |  |
| Proposer(s):                      | Organization and Address:  | Hydrographic and Oceanographic<br>Department, Japan Coast Guard<br>Kasumigaseki 3-1-1, Chiyoda-ku,<br>Tokyo 100-8932, Japan |  |  |  |  |  |
|                                   | Concurrer (name, e-mail, organization and address):  |   |  |  |  |  |  |
|                                   |  |   |  |  |  |  |  |
| Remarks:                          | The position of the summit is located in (23°44.63'N, 141°40.50'E).  |   |  |  |  |  |  |

**NOTE**: This form should be forwarded, when completed:

- a)
- If the undersea feature is located <u>inside the external limit</u> of the territorial sea:
   to your "National Authority for Approval of Undersea Feature Names" (see Publication B-6) or, if this does not exist or is not known, either to the IHO or to the IOC (see addresses below);

This proposal is to define the polygon of an existing feature in SCUFN.

- b) If at least 50 % of the undersea feature is located outside the external limits of the territorial sea:
  - to the IHO or to the IOC, at the following addresses :

International Hydrographic Organization (IHO)

4b, Quai Antoine 1er

B.P. 445

MC 98011 MONACO CEDEX Principality of MONACO
Fax: +377 93 10 81 40
E-mail: info@iho.int
Web: www.iho.int

Intergovernmental Oceanographic Commission (IOC)

UNESCO

Place de Fontenoy 75700 PARIS

<u>France</u> Fax: +33 1 45 68 58 12 E-mail: info@unesco.org Web: <a href="http://ioc-unesco.org/">http://ioc-unesco.org/</a>

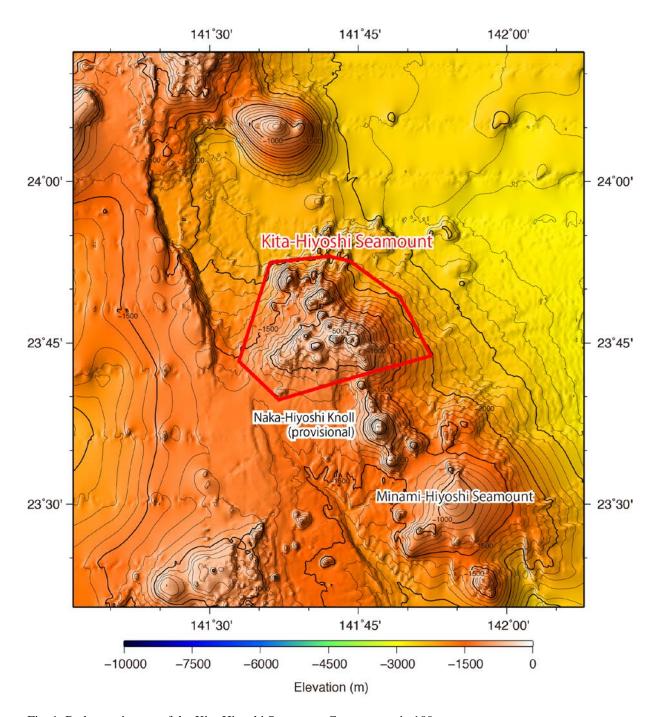


Fig. 1. Bathymetric map of the Kita-Hiyoshi Seamount. Contours are in 100 m.

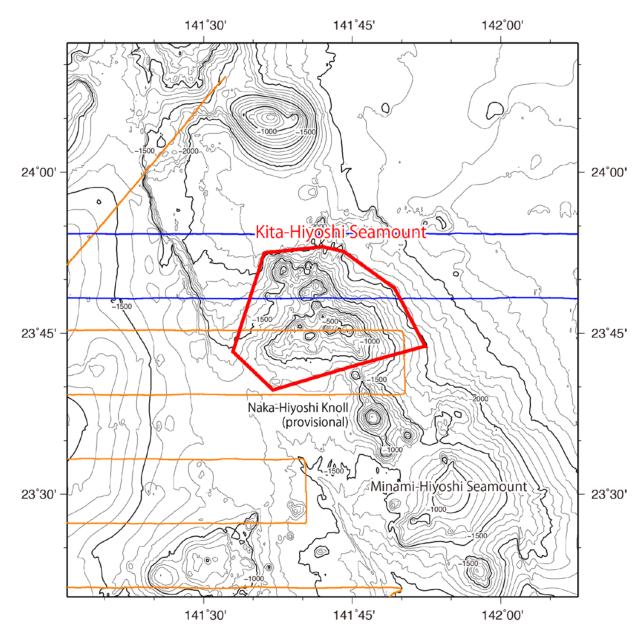


Fig. 2. Bathymetric map of the Kita-Hiyoshi Seamount, shown with track lines. Contours are in 100 m.

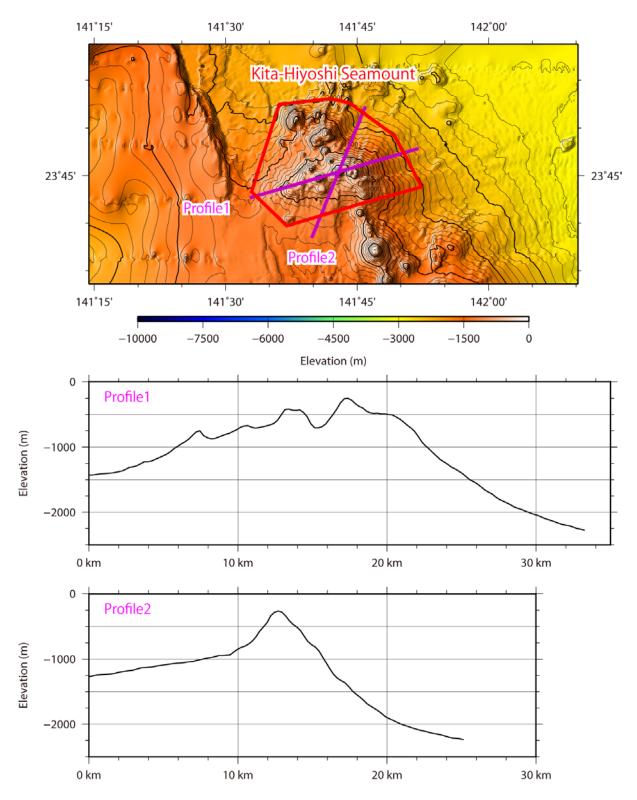


Fig. 3. Bathymetric profile across the Kita-Hiyoshi Seamount.

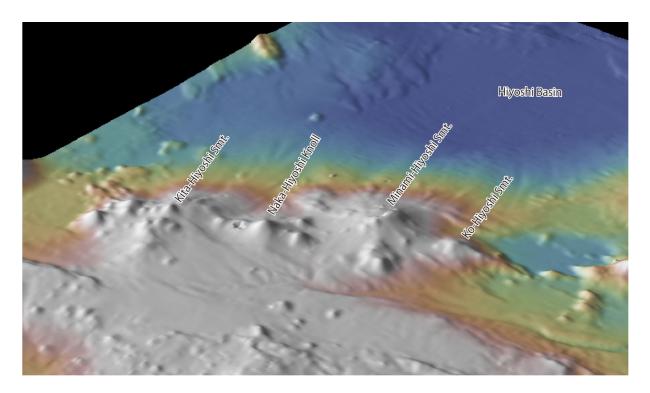


Fig. 4. 3D image of the Kita-Hiyoshi Seamount and its vicinity.