



**36TH MEETING OF THE IHO-IOC GEBCO SUB-COMMITTEE ON UNDERSEA FEATURE NAMES (SCUFN),
Wollongong, Australia (in-person), 6 – 10 November 2023**

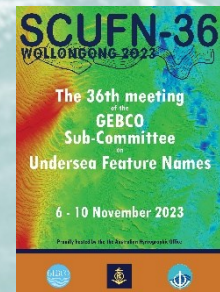
Contribution to the IHO Work Programme 2023

Task 3.6.1	Organize, prepare and report annual meetings of ... associated bodies including...SCUFN
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The 36th meeting of the IHO-IOC GEBCO Sub-Committee on Undersea Feature Names (SCUFN) was hosted by the Australian Hydrographic Office (AHO) in Wollongong, Australia, from 6 to 10 November 2023.

The meeting, chaired by Dr Yasuhiko Ohara¹ [IHO representative] from the Japan Hydrographic and Oceanographic Department (JHOD, Japan), was attended by 45 participants, which consisted of the 12 SCUFN members, plus representatives of nine Member States² (Australia, Canada³, China, Greece, Indonesia, Japan, Malaysia, Philippines, the Republic of Korea and Viet Nam) and subject matter experts (Marine Regions, NOAA (USA), ACUF⁴ (USA), KHOA and KOSBI⁵ (ROK), Geoscience Australia and BGS⁶). Assistant Director Yves Guillam (SCUFN Secretary) represented the IHO Secretariat.

Ms Hilary Thompson, Executive Director of the AHO, in her welcome and opening address, introduced the HydroScheme Industry Partnership Programme (HIPP) led by the AHO. She also reminded the HMS *Challenger* Expedition held from 1872 to 1876, the objectives of which were to explore the physical, chemical, and biological characteristics of the deep sea and its potential for humankind. She concluded her speech with the interesting history of the naming of Australia. A special traditional indigenous “smoking ceremony” in music (*didgeridoo*) was arranged by members of the Illawarra Aboriginal Corporation, to welcome the participants on their “Dharawal”/ Wollongong country.



¹ Vice-Chair, Acting Chair since SCUFN-35.2 in December 2022.

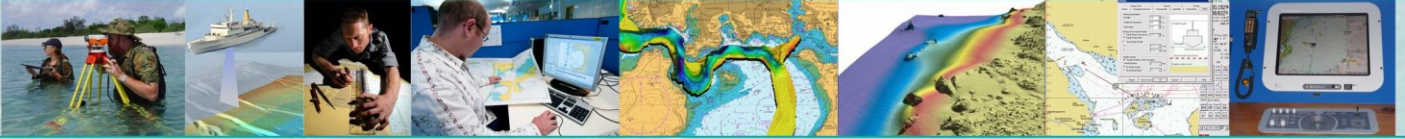
² India and Sri Lanka were registered but no present.

³ Ms Anna Hendi, Chair of the SCUFN UFN Project Team, participated on VTC for the agenda item on the Automated Detection of Features.

⁴ Advisory Committee on Undersea Features.

⁵ Korea Seabed Information.

⁶ British Geological Survey.



Participants in SCUFN-36 – Opening Ceremony

The Chair opened the meeting noting that SCUFN had another significant challenge to face this year with about 450 naming proposals⁷, a record in the history of SCUFN. Despite the procedure in force through the pre-review by SCUFN Members of the naming proposals, thanks to the SCUFN Operational Web Services (operated by KHOA), and the pre-loading by the Secretariat of all naming proposals on the GEBCO Gazetteer⁸, there was a huge risk to be obliged to defer a significant number of proposals. To prevent SCUFN from facing this situation again in the near future, the Secretary suggested to cap the number of naming proposals per organization/country (25 max.) and per year for SCUFN meetings in total (250 max.). This new rule “25/250” was adopted unanimously with immediate effect after SCUFN-36. Proposed amendments to the ROPs will be prepared accordingly and submitted to the GGC⁹.

Good progress was made on some important corporate matters, such as:

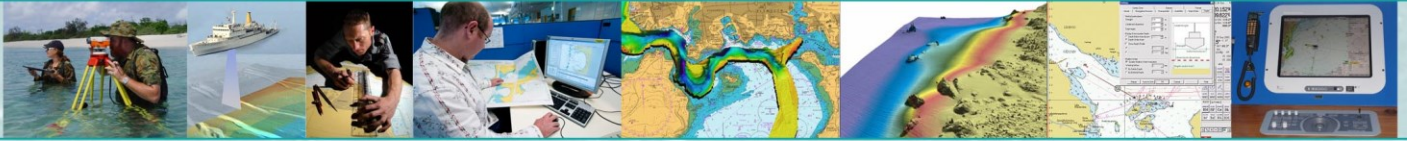
- “*The Repository of Typical Cases*”, a knowledge-database¹⁰ on decision-making process in SCUFN which is now clearly established as a living document complementary to B-6...;
- ...as well as “*The Cookbook for Generic Terms*”, a much more comprehensive catalogue of all morphologic definitions of undersea features that will benefit soon from the views of other subject matter experts (Geoscience Australia, BGS, et al.) already involved in the development of a *Two-Part Seabed Geomorphology Mapping Scheme for Multidisciplinary Applications*.

⁷ Including revisions and fast-track.

⁸ Task handled by contract to display the naming proposals in context, available to SCUFN Members only in EDIT mode.

⁹ GEBCO Guiding Committee.

¹⁰ This document (leading: SCUFN Member Roberta Ivaldi) is planned to become a key component of the development of Artificial Intelligence tools in support of SCUFN activities in the future.



SCUFN agreed that an inter-comparison of these definitions was essential to ensure consistency in the future, as B-6 is not self-sufficient as such, while recognizing that it is the only authoritative international Guidelines available to proposers so far.

IHO-based classifications

IHO B-6 (2019)	Two-part scheme (2020, 2022)	Cookbook (2022)
<p>I. GENERIC TERMS</p> <p>NOTE: Only the generic terms in this section should be used in any new undersea feature name proposal that is intended for submission to SCUFN.</p> <p>ABYSSAL PLAIN An extensive, flat or gently sloping region, usually found at depths greater than 4000 m.</p> <p>APRON A gently dipping SLOPE, with a smooth surface, commonly found around groups of islands and SEAMOUNTS.</p> <p>BANK An elevation of the seafloor, at depths generally less than 200 m, but sufficient for safe surface navigation, commonly found on the continental shelf or near an island.</p> <p>BASIN A depression more or less equidimensional in plan and of variable extent.</p>	<p>Part 1: Morphology</p> <p>APRON A gently dipping surface, occurring at the base of continental shelves, and extending to the continental margin.</p> <p>BANK An elevation of the seafloor, that extends away from the shelf edge, and is not a SEAMOUNT, SEABED RIDGE, or other undersea feature of continental origin.</p> <p>Part 2: Geomorphology</p> <p>Step 1: Top shapes with their Geomorphology</p> <ul style="list-style-type: none"> Riseal Coastal Marine Shoal Solid Earth Current-induced Biogenic Mass Movement Fluid Flow Karst Anthropogenic 	<p>ABYSSAL PLAIN</p> <p>Definition: An extensive, flat or gently sloping region, usually found at depths greater than 4000 m.</p> <p>Dimensions: Generally greater than 500 x 500 km.</p> <p>Length to width ratio: Typically, about 1:1, but can be elongate up to 3:1.</p> <p>Depth: Usually greater than 4000 m.</p> <p>Slopes: Usually less than 1 degree, which is 2% \pm change in elevation over 10 kilometers (km).</p> <p>Comments: These are deep-sea features and should not be confused with BANKS that can also occur at shallower depths. ABYSSAL PLAINS differ from BANKS in that they are part of the deep seafloor, sometimes extending away from SEAMOUNTS and RIDGES, and often have little or no sediment cover. The edges of ABYSSAL PLAINS can be difficult to define as they tend to merge with the SLOPE or continental margin.</p> <p>Similar Features: If length to width ratio is greater than 3:1 consider TRENCH or TRENCH definitions. If smaller than 3:1 x 300 km consider BANK, SEEP and ICEE definitions.</p> <p>APRON</p> <p>Definition: A gently dipping SLOPE, with a smooth surface, commonly found around groups of islands and SEAMOUNTS.</p> <p>Dimensions: Can vary greatly from less than one km to 100s of square kilometers.</p> <p>Length to width ratio: Typically, about 1:1, but can be elongate up to 3:1.</p> <p>Depth: Any water depth.</p> <p>Slopes: Usually less than 1 degree - 175 m change in elevation over 10 kilometers.</p> <p>Comments: There are few of these in the geobase.</p> <p>Similar Features: If not associated with a SEAMOUNT consider FAAN definition. If steeper than two degrees consider SCARP definition.</p>

GEOSCIENCE AUSTRALIA Commonwealth of Australia (Geoscience Australia) 2019

Very useful updates were also provided by the supporting organizations (NOAA, KHOA) and the subject matter experts from ACUF, Marine Regions, Seabed 2030¹¹, and the UN GEGN¹².

At the start of the sessions devoted to the review of naming proposals, some Member States (Philippines and Malaysia, then followed by Viet Nam and China) made important statements, similar in content to those made in 2022¹³, raising their concerns on the location of the naming proposals in the South China Sea (SCS).

Despite all the efforts made at SCUFN-35 to move forward¹³, Observers requested this time “to freeze” the SCS for undersea features naming. A question¹⁴, drafted by the Secretary, was then put to a vote in application of SCUFN ROP 2.10 (political sensitivity). The outcome of this vote is that the SCS has become a “no-go area” for undersea feature naming.

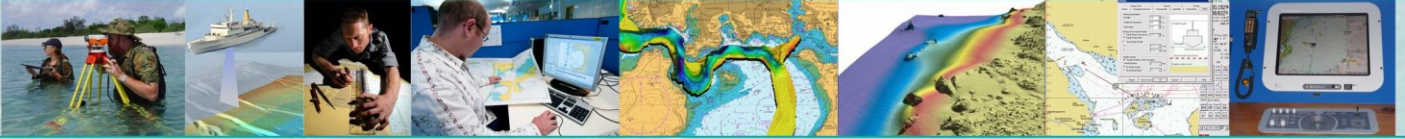
This decision saved a significant amount of time since out of 450 naming proposals, a total number of 284 proposals located in the SCS (China (78+5+21), Malaysia (11), Philippines (21+14+43) and Viet Nam (91)), were not considered at all! As a consequence, all 166 remaining proposals were reviewed, and most of them were approved with very few comments, thanks to the continuing improvement of the quality of proposals over the years. Very few proposals were kept pending or were not accepted.

¹¹ SCUFN Member Mackay.

¹² United Nations Group of Experts on Geographical Names (SCUFN Member Trent Palmer).

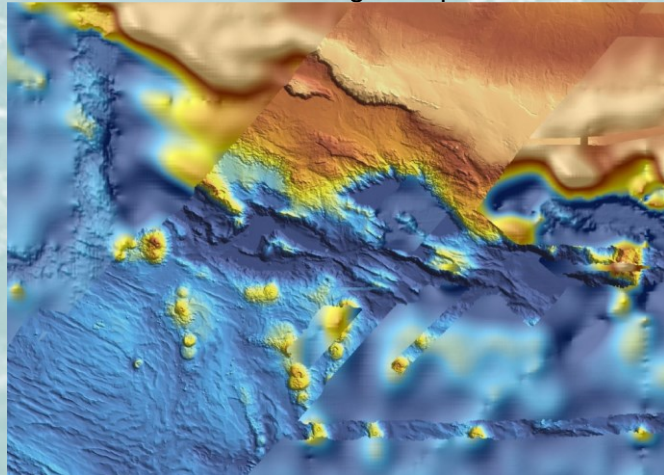
¹³ SCUFN-35 Summary Report and Bulletin Report refer.

¹⁴ “In application of ROP 2.10, do SCUFN Members consider that all proposals located in the SCS should be frozen until a joint proposal on the way forward is made to SCUFN by all interested parties?” (Vote by secret ballot: 7(yes) to 5(no).



Aware that the “Map The Gaps” Symposium and GEBCO week were held in Monaco on the same week, the Secretary broadcasted an extract of the recording of the Map The Gaps Symposium, in which Mr Victor Vescovo (ex-CEO Caladan Oceanic), and former proposer for SCUFN, shares his experience and delivers some critical messages: naming features is too complicated, loss of attractiveness of SCUFN, etc.

As a reaction to the issues faced by SCUFN (SCS frozen, increasing number of proposals, dual naming proposal for same features, absence of mutual consultation, automated detection, robustness of detection algorithms with better definitions of generic terms, etc.), the Secretary shared his opinion that time had come to start thinking on the future of SCUFN. The establishment of a SCUFN Naming 2030¹⁵ SubGroup was decided. This SubGroup will be in charge of the preparation of the future of SCUFN through the development of a new designator model, based on Geographic Feature Unique Identifier, and accepting multilingual attributes for the same feature. The Secretary also recommended this SubGroup to explore the solutions adopted by the International Astronomic Union Working Group on Star Names. This option, if retained in the future, might support the last technological development and the increase knowledge of the seabed, for naming features more efficiently and more consistently. There is still a long way to go... but the SCUFN Undersea Feature James Webb-Space-Telescope-like endeavour was effectively launched in Wollongong this year! As stated by SCUFN Member Mike Coffin: “Should SCUFN get prepared to name the millions of Abyssal Hills that cover the most of the oceanic crust in the future?” ...*That is the question.*



At the end of the meeting, SCUFN Members elected Dr Yasuhiko Ohara [IHO] for the position of Chair, and First Admiral Dr Najhan MD Said [IHO], for the position of Vice-Chair.

The Chair and Secretary thanked Australia for their excellent support and the efficient arrangements provided during the week. SCUFN also welcomed the offer from the Republic of Korea (KIGAM, KHOA) for their proposal to host the next meeting in Jeju, Republic of Korea, from 24 to 28 June 2024.

¹⁵ In relation to the Ocean Decade 2030 Project on the Detection of Undersea Features presented by Ms Anna Hendi (CHS, Chair of the UFN PT).