**SCUFN32-07.1A**

## Paper for Consideration by SCUFN

## Report of the work made during the inter-sessional period

**Wish-List of Enhancements to the On-line Interface of the GEBCO Gazetteer**

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| ***Submitted by:*** | IHO Secretariat (as SCUFN Secretary) |
| ***Executive Summary:*** | This document reports on the monitoring, since SCUFN-31, of the Wish-List of Enhancements to the On-line Interface of the GEBCO Gazetteer.  |
| ***Related Documents:*** | SCUFN31-07.1A, SCUFN31-07.1B, SCUFN32-07.3A |
| ***Related Projects:*** | N/A  |

## Introduction / Background

## 1. Following the SCUFN-31 meeting in October 2018 and considering the limited resources available within its Sub-Committee, the Secretariat of the GEBCO Sub Committee on Undersea Feature Names (SCUFN) decided to contract several tasks in order to improve the content of the IHO-IOC online GEBCO Gazetteer of Undersea Feature Names (the Gazetteer) and support SCUFN activities managed by the IHB. The following tasks were contracted to the former SCUFN Secretary.

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| --- | --- | --- |
| **Tasks** | **Objectives** | **Outcome reported in** |
| **1** | *Update the Gazetteer from all undersea feature naming decisions and actions taken at SCUFN-31, ensuring quality control and standardization of the documentation provided as part of the relevant proposals. Prepare a draft report as a submission document to SCUFN-32. Deadline:* ***30 April 2019****.* | Doc. SCUFN32-07.2B |
| **2** | *Monitor the list of pending names. Prepare a draft report as a submission document to SCUFN-32. Deadline:* ***30 April 2019****.* | Doc. SCUFN32-07.2D |
| **3** | *Monitor / upgrade the wish-list of improvements to the Gazetteer interface and test any new developments by NCEI. Monitor the relationships with NCEI to maintain the Gazetteer, as necessary and/or appropriate. Prepare a draft status report as a submission document to SCUFN-32. Deadline:* ***31 May 2019****.* | Doc. SCUFN32-07.1A |
| **4** | *Launch, monitor and provide advice on the development by KHOA of the prototype UFN database and web-based associated services (the Beta-Gazetteer). This will include testing the Beta-Gazetteer in operational mode for a couple of undersea feature names (Action SCUFN31/209). Prepare a draft status report as a submission document to SCUFN-32. Deadline:* ***31 May 2019****.* | Doc. SCUFN32-07.3A |
| **5** | Preload in the Gazetteer all undersea feature names from the proposals that will be submitted to SCUFN-32, in advance of the meeting. In doing so, quality control and standardization of the documentation provided will be ensured. All preloaded names to be put in Edit mode. Prepare a draft status report as a submission document to SCUFN-32. Deadline: **30 June 2019**. | Doc. SCUFN31-04A |

2. The objective of this submission paper is to report on Task 3.

**Analysis/Discussion**

3. A new version 3.0+204 of the Gazetteer interface was made available in the spring of 2018 by NOAA’s NCEI[[1]](#footnote-1) Gazetteer Project Team, the responsible body for the maintenance of the Gazetteer. The new version incorporated a significant number of desirable enhancements as listed in Doc. SCUFN30-07.1A. This has resulted in a much improved version of the interface. However, the NCEI software developer who was working on the Gazetteer left soon after and the consolidated wish-list of 25 enhancements which was provided in Doc. SCUFN31-07.1A could not be addressed in the intersessional period.

4. Doc. SCUFN31-07.1B reported that an annual funding of ~50K/year for the maintenance and enhancements of the Gazetteer had been secured at NCEI, and that a new software developer was being recruited, who could start working on the Gazetteer in 2019. The work has actually begun in June 2019, based on Annex B to SCUFN31-07.1B.

5. In early 2019, SCUFN, NOAA and KHOA agreed that the GEBCO Gazetteer would be dedicated to the public use and that a “Beta-Gazetteer” under development at KHOA, as part of a new integrated website, would be used by SCUFN members only, and also as a backup system. See Doc. [SCUFN32-07.3A](https://www.iho.int/mtg_docs/com_wg/SCUFN/SCUFN32/SCUFN32_2019_07.3A_EN_UFN_Integrated_Web_Services_v1.1.pdf).

6. Several decisions or actions from SCUFN-31 related to the maintenance and/or improvement of the Gazetteer interface and the KHOA new integrated website. They are listed in [Annex A](#AnnexA) with their respective status.

7. Based on additional experience gained through the use of the Gazetteer Interface to maintain the database, a consolidated “Wish-List of Enhancements to the On-line Interface of the GEBCO Gazetteer” has been prepared and is provided in [Annex B](#AnnexB). The items marked “ASAP” reflect genuine errors which should be corrected as a matter of priority. The other items are prioritized as “Short Term”, Medium Term” or “Long Term” depending on their importance/urgency.

 **Recommendations**

It is recommended that:

8. SCUFN Members consider and review the wish-list of enhancements in [Annex B](#AnnexB), including the suggested priorities and assessment results, and based on their own experience of the Gazetteer, propose any changes they deem appropriate.

 **Justifica**t**ion and Impacts**

9. Benefits: incremental improvements of the Gazetteer, and correction of anomalies when they exist. Better monitoring and management of the actions to be done. Better visibility on resources needed and better efficiency.

10. Resource implications: impact on NCEI resources to be budgeted. Solutions through GEBCO funding to possibly be considered.

 **Action required of SCUFN**

11. SCUFN is invited to:

a. note this report.

b. consider / agree on the recommendations made in section 8.

**Annex A to SCUFN32-07.1A**

**DECISIONS and ACTIONS FROM SCUFN-31 relating to Task 3**

| **Decision/Action** | **Details** | **Status****(Jul 2019)** | **Comments & Suggestions** |
| --- | --- | --- | --- |
|  | **Matters remaining from Previous Meetings** |  |  |
|  | **Review of Actions from SCUFN-31 and transfer to the relevant agenda items** |  |  |
| SCUFN31/06 | Following concerns raised by NZGB in Doc. SCUFN31-03.1C, **Kevin** to draft a short procedure for SCUFN Members so they can edit and make editorial changes into the GEBCO Gazetteer as appropriate, while ensuring a good level of quality assurance (history of changes, limitations, formal report and changes approval at following plenary SCUFN meetings, etc.) | Complete  | Action overtaken by events as, in the new procedure under development, SCUFN members will interact on the KHOA beta database. |
|  | **Gazetteer of Undersea Feature Names** |  |  |
|  | **Maintenance of the on-line interface to GEBCO Gazetteer database** |  |  |
| SCUFN31/205 | Noting that funding had been secured by NOAA, but also the impossibility to make significant upgrades for interfacing with scufnsubmission.org and scufnreview.org, **SCUFN** agreed to encourage NOAA to pursue the regular maintenance of the GEBCO Gazetteer, at least for about 3 years, while KHOA continues to develop an integrated system. | Complete | No further action. |
|  | **Interoperability and Prototyping** |  |  |
| SCUFN31/207 | **SCUFN Members** to continue experimenting scufnsubmission.org, scufnreview.org, and the Beta-Gazetteer developed by KHOA and report to Han. | In progress | March 2019 |
| SCUFN31/208 | **KHOA** to develop a transition plan (tasks - what, who, when?, including continuity of services offered to current users of the GEBCO Gazetteer, liaison with NOAA) preparing to the commissioning of the Beta-Gazetteer (target date 2021-22) and to submit it to SCUFN at the next meeting for further consideration. | In progress | See Doc. [SCUFN32-07.3A](https://www.iho.int/mtg_docs/com_wg/SCUFN/SCUFN32/SCUFN32_2019_07.3A_EN_UFN_Integrated_Web_Services_v1.1.pdf). |
| SCUFN31/209 | **JCUFN/IHO Sec.** to test in operational mode, the integrated system developed by KHOA, for a couple of undersea feature names prior to the next meeting. | In progress | SCUFN32 |

**Annex B to SCUFN32-07.1A**

**Wish-List of Enhancements to the On-line Interface of the GEBCO Gazetteer**(*Updated to July 2019*)

| **No.** | **Improvement** | **Suggested Priority** | **Assessment by contractor Jul 2019** |
| --- | --- | --- | --- |
| **A.** | **Gazetteer Interface MANAGEMENT** |  |  |
| A.1 | *Moving the cursor on the chart background*. The names popping up when moving the cursor on the map are wrong. Normally, moving the cursor on the displayed geometry of a feature led to the relevant feature name being shown in an adjoining window, which is very convenient to identify any name at a glance. This is not the case. If, for example, the cursor is moved on the geometry for Darvin Guyot (Point), off New Zealand, the name popping up is Aurora Canyon, which is located off the Antarctic Peninsula! This observation is valid for any feature geometry displayed on the chart background. This is a real nuisance. | ASAP | No change since Oct 2018. |
| A.2 | *Polygon or line crossing the date line*. Clicking on any feature with polygon geometry crossing the date line (Meridian 180°), e.g. Bounty Trough, results in the centre of the basemap being relocated somewhere in the South Atlantic, around the Meridian 0° and at similar latitude. Same if the name of a feature crossing the date line is selected in the SW corner. This means that the feature geometries for those selected names are not visible (in yellow) on the basemap on display. It should be noted that, if the geometry is a linestring, then the basemap remains unchanged.  | ASAP | No change since Oct 2018. |
| A.3 | *Geometry entered from shapefiles*. If a Shape file package includes several geometries for a given name, for example 20 line strings as for Kerama Ridges, only the first geometry is read by the Gazetteer interface. All geometries should be read instead. | ASAP | No change since Oct 2018. |
| A.4 | *Display of geometry on the basemap*. The geometry of any non-selected name contained within the basemap on display, whether point, line or polygon, is shown in blue. However, the primary geometry only appears in blue. The secondary geometry is not visible, e.g. Acapulco Seamounts or Guling Seamounts. | ASAP | No change since Oct 2018. |
| A.5 | *Input and Display of Information – Diacritical Characters*. It should be possible to enter and display the following characters: ā, ē, ī, ō and ū, as part of a specific name, e.g. Pūkākī Rise, or as part of the information in the fields “Origin of Name” and/or “Additional Information”. At present, those characters can be entered and saved in “Edit” mode but are not recognized if the “Edit” mode is selected again. Diacritical characters are then replaced with “¿”. | ASAP | No change since Oct 2018. |
| A.6 | *Export results functionalities.* With the new version 3.0+204 of the interface, it is no longer possible to export results as Excel, CSV or Shape files. These functionalities which are normally actioned from the small window "Export results as:" on the lower left corner, no longer work (Exporting as CSV however works if one single name is selected or if all names are selected; it does not work if names are selected by drawing a rectangle). | ASAP | No change since Oct 2018. |
| A.7 | *Cursor coordinates on the Arctic and Antarctic basemaps.*When selecting the Arctic or Antarctic basemap, coordinates attached to the cursor should be Long, Lat, as on the Mercator basemap. Currently, the coordinates are “not available” or, if shown, they are meaningless to the average user of the Gazetteer. | ASAP | No change since Oct 2018. |
| A.8 | *Display of information - Geometry*. The primary geometry, only, is shown in the “information” window, below the basemap. There should be an additional line showing the secondary geometry. The titles shown should then be “Primary Geometry” and “Secondary Geometry”, respectively. | Short Term | No change since Oct 2018. |
| A.9 | *Display of Position on the Chart Background*. At present, the coordinates associated with the cursor’s position on the basemap are expressed as *Long, Lat* with format ±LLL.DDD, ±lll.ddd, e.g. –119.833, 13.475. There should be an option to express them as *Long, Lat* with format LLL°MM.M’E/W, ll°mm.m’N/S, e.g. 119°50.5'W, 13°27.1'N. The latter format for geographical coordinates is more familiar to the average user of the Gazetteer. | Short Term | No change since Oct 2018. |
| A.10 | *Display of Information - Geometry – Coordinates*. Importing geometry from shape files often results in coordinates with an unnecessary great number of decimals, e.g. -35.79992945866667 -21.76742849571431. It is recommended to limit to five the number of decimals (the fifth decimal being rounded), which corresponds to an accuracy of the order of 1 metre on the ground (the sea in fact). In the above case, the coordinates would become -35.79993 -21.76743. The other additional decimals are meaningless. | Short Term | No change since Oct 2018. |
| A.11 | *Polygon or line crossing the date line*. A feature geometry crossing the date line (Meridian 180°) - line or polygon – is split into two new geometries of same type, one of each side of the date line, which results into MULTILINESTRING or MULTIPOLYGON geometries. While this solution works, it is not totally satisfactory. A line or polygon depicting a given undersea feature, even crossing the date line, should remain one single geometry. | Short Term | No change since Oct 2018. |
| A.12 | *Undersea Feature Search on the NW window*. Accented letters, such as é, è, à, ñ are not recognized when used as part of the specific term in the field “Name”. Thus, typing “Chiloé” results in the message “Search results: 0 features found.” To get to Chiloé Basin, the name entered should be limited to “Chilo”.  | Short Term | No change since Oct 2018. |
| A.13 | *SW search window, list of names*. At present, all specific terms starting with ' (apostrophe), such as 'Arere Seamount, appear first in the list of names. They should appear in the appropriate alphabetic order, without taking any consideration to the apostrophe. For example, 'Arere Seamount should be listed between Arensberg Seamount and Argentina Rise. | Medium Term | No change since Oct 2018. |
| A.14 | *Editor name.* After logging in as Editor (by clicking on “Log In” on the upper right side of the screen), the Editor name should be shown under “Editor” for all status, whether APPROVED, PENDING, EDIT or READY. At present, the Editor name (in fact, his/her e-mail address, which is fine) is shown for the EDIT and READY status only. Further, the editor’s e-mail address shown should always be that of the latest intervenor. For example, this is not the case if the feature name remains under EDIT status. Finally, the title “Editor” should be replaced with “Latest Editor”. | Medium Term | No change since Oct 2018. |
| A.15 | *Undersea Feature Search on the NW window*. The search functionality should be extended to accept in the field “Name”, words or group of letters which are part of the specific term. For example, it should be possible to get to La Confiance Ridge by entering “Confiance” only, or to get to ‘Arere Seamount via “Arere”. This is not possible at present. | Medium Term | No change since Oct 2018. |
| A.16 | *Display of Information – Associated Meeting*. At present, one Associated Meeting only is allowed. In a number of cases, a name has been the subject of successive changes, relating to the generic term, the position(s) or even the specific term. These are reported in the relevant meetings. It would therefore be useful to be able to enter up to three associated meetings, shown on same line, in order to trace back the history of a name if needed. The title would then become “Associated Meeting(s)”. | Long Term | No change since Oct 2018. |
| A.17 | *Display of Depth on the Chart Background*. In addition to the coordinates *Long, Lat* associated with the cursor’s position on the basemap, it would be useful to have the possibility of displaying the depth in meters as an option, that is, *Long, Lat*, *Depth,* using the GEBCO gridded bathymetry database. | Long term | No change since Oct 2018. |
| **B.** | **Gazetteer Administration** |  |  |
| B.1 | *Contact List*. It is not possible to amend an existing contact in the Contact List. Any editing of an existing contact results, after selecting “Update”, in a new contact created and which includes the changes made. The existing contact is kept as it was. All relevant names in the Gazetteer continue to refer to the existing contact. The revised contact is useless, unless all concerned names are amended one by one to refer to it. | ASAP | No change since Oct 2018. |
| B.2 | *Feature Type List and Contact List*. It should be possible to reach a given feature type or contact, for example “Seamount” or “Survey Vessel”, directly by entering some initial letters or a key word, such as “sea” for a feature type or “vessel” for a contact, in an additional small window “Filter by name” somewhere at the top right of the page. This used to be the case for the Contact List in an earlier version of the Gazetteer Interface. However, for some unknown reason, this facility has disappeared in version 3.0+204. At present, reaching a particular feature type or contact may be tedious. | Short Term | No change since Oct 2018. |
| B.3 | *Feature Type List*. If, during the editing of a feature type, one clicks on the “return” key to start a new line, this change is not reflected in the updated text on display. | Medium Term | No change since Oct 2018. |
| B.4 | *Feature Types List*. For consistency purpose, it is recommended that the expression “Feature Type” be replaced with “Generic Term”, which is the accepted wording in B-6. Accordingly, the words “Name” and “Description” at the top of each page should be replaced with “Generic Term” and “Definition”, respectively. As a result, the words “Name” and “Type” in the Undersea Feature Search window of the Gazetteer Interface should also be replaced with “Specific Term” and “Generic Term”. | Medium Term | No change since Oct 2018. |
| B.5 | *Feature Types List*. Wherever the description of a Feature Type is not provided because reference is made to another Feature Type, e.g. “Cap: see BANK”, there should be a hyperlink from the relevant word – here, “BANK” – to the actual description for that Feature Type, in this case under “Bank”. | Medium Term | No change since Oct 2018. |
| B.6 | *Feature Types List*. The following “Note” should be included at the top of each page, preferably in the line “Feature Type List” (to become “Generic Term List”):“NOTE: Terms written in CAPITALS in the definitions are themselves defined elsewhere in the list.” | Medium Term | No change since Oct 2018. |

1. National Center for Environmental Information [↑](#footnote-ref-1)