**SCUFN30-07.1A Rev1**

## Paper for Consideration by SCUFN

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

**Wish-List of Improvements 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 SCUFN29, of the Wish-List of Improvements to the On-line Interface of the GEBCO Gazetteer. |
| ***Related Documents:*** | SCUFN29-07.1A & 07.1B  SCUFN29-07.3A |
| ***Related Projects:*** | N/A |

## Introduction / Background

## 1. Following the SCUFN-29 meeting in September 2016 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-29, ensuring quality control and standardization of the documentation provided as part of the relevant proposals. Deadline:* ***T0 + 4 months****. Prepare a draft report as a submission document to SCUFN-30. Deadline:* ***30 April 2017****.* | Doc. SCUFN30-07.2A |
| **2** | *Monitor the list of pending names. Prepare a draft report as a submission document to SCUFN-30. Deadline:* ***30 May 2017****.* | Doc. SCUFN30-07.2B |
| **3** | *Monitor the draft new edition of Publication B-6 (“red line” version), taking into account any related development following SCUFN-29, with a view to submitting an improved draft for comments at SCUFN-30. In accordance with IHO Resolution 2/2007, confirm the impact study already conducted and prepare a draft report as a submission document to SCUFN-30, as well as a submission to the appropriate IRCC meeting. Deadline:* ***30 May 2017****.* | Doc. SCUFN30-06A Doc. SCUFN30-06B |
| **4** | *Monitor, upgrade the wish-list of improvements to the Gazetteer interface and test the new developments if any. Prepare a draft status report as a submission document to SCUFN-30. Deadline:* ***30 June 2017****.* | Doc. SCUFN30-07.1A |
| **5** | *Launch, monitor and provide advice on the development of the prototype UFN database and web-based associated services. Prepare a draft status report as a submission document to SCUFN-30. Deadline:* ***30 June 2017****.* | Task not carried out as prototype not available. |

2. The objective of this submission paper is to report on Task 4.

**Analysis/Discussion**

3. Document SCUFN29-07.1A presented a wish-list of 27 improvements needed on the interface of the on-line Gazetteer and which had been submitted to NOAA’s NCEI[[1]](#footnote-1) Gazetteer Project Team for assessment, as responsible organization for the maintenance of the Gazetteer. Regretfully, NCEI had not been able to consider this document and provide appropriate estimates in terms of time and costs to achieve the work, prior to SCUFN-29.

4. Several decisions or actions from SCUFN-29 related to the maintenance and/or improvement of the Gazetteer interface. They are listed in [Annex A](#AnnexA) with their respective status. Most of them have been completed.

5. At SCUFN-29, NCEI informed that there was currently no NOAA funding for further developments of the Gazetteer and that it would not be possible to accept IHO or IOC funds anyway, adding that a rough estimate for the Gazetteer maintenance was about USD 200 000 per year. NCEI subsequently indicated, in response to Action SCUFN29/141, that a cost-estimate to address the wish-list of 27 improvements would be of USD 250 000 for approx. 95 days of work. At SCUFN-29, NCEI also mentioned that the Application Programmable Interface (API) used in the Gazetteer, allowed for accessing and pull information fromthe GEBCO Gazetteer, but not on the other way, because of the existing protocols to control security issues, meaning that the suggested “improvement” no 13 (inclusion in the Gazetteer interface of a hyperlink to the SCUFN Review website) would probably not be possible.

6. However, NCEI was able to devote some funding to improve the Gazetteer interface or resolve pending issues around mid-2017. As a result, a test application was prepared by NCEI that the IHO contractor was able to assess during the summer of 2017. The assessment results are shown in [Annex B](#AnnexB). They reveal that a significant number of suggested improvements have been done, which is very encouraging. Hopefully, NCEI can be funded in future to continue maintaining and improving the Gazetteer. Based on the test application, as corrected following the assessment, a new version of the Gazetteer interface should be formally launched by NCEI in October 2017.

**Recommendations**

It is recommended that:

7. SCUFN Members consider and review the wish-list of improvements 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 7.

**Annex A to SCUFN30-07.1A**

**DECISIONS and ACTIONS FROM SCUFN-29 relating to Task 4**

| **Decision/ Action** | **Details** | **Status**  **(Aug 2017)** | **Comments & Suggestions** |
| --- | --- | --- | --- |
|  | **Matters remaining from Previous Meetings** |  |  |
|  | **Review of Actions from SCUFN-28 and transfer to the relevant agenda items** |  |  |
| SCUFN29/07 (former SCUFN28/95) | **Sec.** to provide all SCUFN Members with their GEBCO Gazetteer Editors username and password so they can:   * log in * assess the new proposed feature names in EDIT mode   make editorial corrections directly | In progress | Done for Félix, Walter, Yas, Hans Werner. |
|  | **Gazetteer of Undersea Feature Names** |  |  |
|  | **Maintenance of the on-line interface to GEBCO Gazetteer database** |  |  |
| SCUFN29/141 | **NOAA/NCEI** to provide cost-estimate / level of effort needed to address the wish-list of improvements reported in Doc. SCUFN29-07.1 Rev1. | Done | Cost-estimate: USD 250 000 for approx. 95 days of work (last e-mail from J. Jencks 6 Dec 2016). |
| SCUFN29/142 | **SCUFN Chair** to report to the GGC on the GEBCO Gazetteer maintenance issues (corrective actions, upgrades, interface with other SCUFN websystems) requesting guidance on the way forward considering that NOAA seems not in a position to accept IHO/IOC funding for instance. Business as usual. | Done | Chair to report at SCUFN-30. |
| SCUFN29/144 | **SCUFN Members** decided that there is no need to develop a detailed procedure relating to the possibility for SCUFN Members (Privilege Users) of making editorial changes in the GEBCO Gazetteer as the Sec. needs to be kept informed and to approve them anyway. | Done | No action needed. |
| SCUFN29/145 | **Sec.** to include in the wish-list of improvements of the GEBCO Gazetteer a requirement for adding the traceability of editorial updates (when + who?) made by SCUFN Members. | Done | Already included in the Gazetteer interface through the “Delete” function. |

**Annex B to SCUFN30-07.1A**

**Wish-List of Improvements to the On-line Interface of the GEBCO Gazetteer**(*Updated to September 2017*)

| **No.** | **Improvement** | **Suggested Priority** | **Assessment by contractor Sep 2017[[2]](#footnote-2)** |
| --- | --- | --- | --- |
|  | **Gazetteer Interface MANAGEMENT** |  |  |
| 1 | *Polygon or line crossing the date line*. A name with geometry crossing the date line (Meridian 180°) has its geometry - line or polygon - cut into two new geometries of type MULTILINESTRING, one of each side of the date line. Further, MULTILINESTRING geometries are not visible on the basemap (in yellow), e.g. Havre Trough, Hawaiian Ridge, Kermadec Ridge, Lomonosov Ridge or Pacific-Antarctic Ridge. The only way to have the geometry shown in such cases (although not in the correct area of the world) is to transform the two MULTILINESTRING geometries into two adjacent polygons (MULTIPOLYGON), with their respective segments along the date line coinciding, e.g. Pennell Bank or Bounty Trough. Further, the rounded coordinate 180 is not accepted; it has to be replaced with something close such as 179.99999. This is not satisfactory. A polygon delimiting an undersea feature should remain one single polygon, even if it crosses the date line. Such situation should not result in creating artefacts. **This constitutes a major shortcoming of the current interface.** It should be noted that there seems to be no problem with geometries – line or polygon – crossing the equator. | ASAP | No change. In progress at NCEI (25 Sep 2017). |
| 2 | *Display of Information – Minimum Depth, Maximum Depth and Total Relief*. Any value which has been entered under “Minimum Depth”, “Maximum Depth” or “Total Relief” cannot be removed. It can only be changed. This should be corrected. | ASAP | **Done** |
| 3 | *Display of Information – Year of Proposal and Year of Discovery*. Any value which has been entered under “Year of proposal” and “Year of discovery” cannot be removed. It can only be changed. The only way to have the year not shown in the “saved” version is to set it to 0 (zero), which is not satisfactory. This should be corrected. | ASAP | **Done** |
| 4 | *Display of Information – Search results.* The “Search result” box, on the lower left corner of the Gazetteer front page, should be active when using any popular browser. While this box is active with Mozilla Firefox, it is not with Google Chrome, thus making the Gazetteer unusable with the latter browser. This should be remedied. | ASAP | Works fine with Firefox 55.0.2 (32 bits), but does not work with Google Chrome 60.0.3112.101 (Build officiel) (64 bits). |
| 5 | *Display of information – Minimum Depth*. In some rare cases, the Minimum Depth is a height, that is, above sea surface, e.g. Kikai Caldera or Oki-Daito Plateau. In order to cope with such cases, it should be possible to enter a negative value under Minimum Depth. | Short Term | **Done** |
| 6 | *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”. | Short Term | No change. In progress at NCEI (25 Sep 2017). |
| 7 | *Cancel Option under Edit Function*. Under the “Edit” function, two options are available, that is, “Cancel” and “Save”. To end up under the “Edit” function, one has to select “Edit” under either the “Approved” or “Ready” or “Pending” or “Edit” status. Selecting the option “Cancel” always results in a new “Edit” status, which is fine only if the previous status was “Edit”. Rather, one should revert to the actual previous status, whether “Approved”, “Ready”, “Pending” or “Edit”. | Short Term | **Done** for “Edit” and “Ready” status. No change for “Pending” and “Approved” status. |
| 8 | *Display of information - Geometry*. Only the primary geometry is shown. There should be an additional line showing the secondary geometry. | Medium Term | No change |
| 9 | *Display of geometry on the chart background*. The geometry of any name selected is shown in yellow on the basemap. When clicking on the geometry, it sometimes disappears, e.g. Acapulco Seamounts, Guling Seamounts. | Medium Term | No change |
| 10 | *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. | Medium Term | No change |
| 11 | *Edit and Pending Status – New option Withdraw/Reject*. Only “Approved” names can be “Deleted” and marked as such in the database, which is logical and therefore correct. However, the “Edit”, “Pending” and even “Ready” status also propose the function “Delete” as an option, which is illogical and, in fact, does not work: an error message is generated. The function “Delete” should therefore be removed from the options available under the “Edit”, “Pending” and “Ready” status. On the other hand, it is recommended that an option “**Withdraw/Reject**” be available instead under the “Edit” and “Pending” status, which would result in the concerned names being flagged as “**Withdrawn/Rejected**” in the database. In effect, all names proposed in advance of a SCUFN meeting are entered into the Gazetteer database with status “Edit”, for convenience. Following their examination at the meeting, these names are considered “Accepted”, “Adopted”, “Pending”, “Not Accepted” or “Withdrawn”. At present, the only way to deal with “Not Accepted” and “Withdrawn” names is to first “Approve” these names, then to “Delete” them. This is not satisfactory. Similarly, some names which have been kept “Pending” for years in the database, may eventually be “Withdrawn” by decision of SCUFN or at the request of the proposer, for whatever reason. Again, those “Pending” names must first be “Approved” then “Deleted”, which is not satisfactory. By definition, “Not Accepted”, “Withdrawn” and “Pending” names have never been “Approved”. | Medium Term | Can be considered as **done**, although not satisfying to the suggested change. The function “Delete” now works for the “Edit”, “Pending” and “Ready” status. |
| 12 | *Display of Information - Geometry – Coordinates*. Importing geometry from shape files 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. | Medium Term | No change |
| 13 | *Edit Function – Link to SCUFN Review website.* The SCUFN Review website ([www.scufnreview.org](http://www.scufnreview.org)) provides details on the proposals submitted as well as their status following examination by SCUFN (Accepted, Adopted, Not Accepted, Pending, Withdrawn or Deferred). It is suggested to include a new key “Review Proposal” on the “state” line of the Edit Function (but separate from the other state keys, for example in the middle of that line), with a hyperlink to the SCUFN Review website, so as to read:  “ [Review Proposal](http://www.scufnreview.org) Cancel Save“  Thus, an editor will be able to populate this page in advance of a SCUFN meeting from the proposal details found on the SCUFN Review website. Following the meeting, he will also find there the resulting status of the proposal so as to select the appropriate state key (“Hold”, “Summit” or “Withdraw/Reject”) for the next step. | Long Term | No change. To be addressed in connection with Doc [SCUFN30-07.3A](https://www.iho.int/mtg_docs/com_wg/SCUFN/SCUFN30/SCUFN%2030-07.3A_SCUFN%20website%20prototyping%20%28ROK%29.pdf). |
| 14 | *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. | Long Term | No change |
| 15 | *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, that is, *Long, Lat*, *Depth,* using the GEBCO gridded bathymetry database | Long term | No change |
| 16 | *Display of Information - Editor*. The e-mail shown should be that of the latest editor having made changes to the database. At present, this is the e-mail of the first intervening editor. | Long Term | No change |
|  | **Gazetteer Administration** |  |  |
| 17 | *Meetings List*. When updating the details for a given meeting, the field “Year” is reset to “1975”. It should stay as it was. | ASAP | **Done** |
| 18 | *Feature Types List*. The Feature Types “Arrugado”, “Mountains” and “Unknown” appear in the list with description “not a recognized Feature Type”. These 3 feature types are not used anywhere in the Gazetteer, they are not listed in B-6 and should therefore be removed from the list. However, the function “Delete” which is available when selecting a Feature Type does not work. An error message is generated when attempting to delete it (Administrator). This should be corrected. Further, a particular case is that of the Feature Type “Zone”. Although, it does not appear in B-6, it has been used in the past for names which are now flagged “Deleted” in the database. For that reason, it is assumed that “Zone” should be kept in the list, for historical purpose, with its current definition “not a recognized Feature Type”. In any case, the Feature Types “Arrugado”, “Mountains”, “Unknown” and “Zone” should not appear in the list which is proposed when selecting “Type” from the “Undersea Feature Search” box of the Gazetteer Interface. | Short Term | **Done** |
| 19 | *Contacts List*. The following contacts “German R/V Meteor”, “German R/V Meteor (Dr. R. Werner, GEOMAR)”, “NMOC, USA”, “Soviet Northern Fleet Hydrographic Expedition” and “R/V Melville, SIO, USA” are not linked to any name in the database (Search results under “Proposer” or “Discoverer”: “0 features found”). They should therefore be removed from the list. However, the function “Delete” which is available when selecting a Contact does not work. An error message is generated when attempting to delete it (Administrator). This should be corrected. In any case, these 5 Contacts should not appear in the list which is proposed when selecting “Proposer” or “Discoverer” from the “Undersea Feature Search” box of the Gazetteer Interface. | Short Term | **Done** |
| 20 | *Privileged Users*. A privileged user with status “Administrator” should have the possibility to remove from the User List an editor (that is, with status “Enabled”) who has lost his/her privilege for whatever reason, for example after leaving the IHB or stepping down from SCUFN. This is not the case at present and this shortcoming should therefore be remedied. | Short Term | **Done** |
| 21 | *Feature Types List*. If, during the editing of a feature type, you click on the “return” key to start a new line, this change is not reflected in the updated text, although it is shown if that feature type is edited again. This should be corrected. | Medium Term | No change |
| 22 | *Feature Types List*. It should be possible to reach a given feature type, for example “Seamount”, directly by entering some initial letters (e.g. “sea”) in an additional small window “Filter by name” somewhere at the top of the page, similarly to what has been done to search through the Contacts List. | Medium Term | No change |
| 23 | *Feature Types List*. For consistency purpose, it is recommended that the expression “Feature Type” be replaced with “Generic Term”, which is the accepted wording as reflected in B-6. Similarly, the words “Name” and “Description” at the top of each page should be replaced with “Term” and “Definition”, respectively. | Medium Term | No change |
| 24 | *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 |
| 25 | *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 |
| 26 | *Contacts List*. Following harmonization of the contact names (proposers and discoverers) in 2015, a number of “Deleted” undersea feature names continue to point to obsolete expressions of contacts. In order to maintain the harmonization thus obtained, it should not be possible to use any of the obsolete contacts anymore. To achieve that, it is recommended to create a separate section “Historical Contacts List” and move to that new section all obsolete contacts, as listed in the middle column of the table shown at Annex B to Doc. [SCUFN28-07.2A](http://www.iho.int/mtg_docs/com_wg/SCUFN/SCUFN28/SCUFN28-07.2A_ReportWorkIntersessionalPeriod_Databasequalityupgrade.pdf). As a result, only those contacts in the Active Contacts List should be shown in the list which is proposed when selecting “Proposer” or “Discoverer” from the “Undersea Feature Search” box of the Gazetteer Interface. Additionally, a new functionality should be developed to allow an Administrator to transfer an obsolete contact from the Active Contacts List to the Historical Contacts List, as needed in the future. | Long Term | To be put on hold, now that the “Delete” function under Contacts List is working again (see point 19 above). |
| 27 | *Contacts List*. It should be possible to enter more than one e-mail address in the “Email” field. At present one address only can be included. | Long Term | No change |

1. National Center for Environmental Information [↑](#footnote-ref-1)
2. The assessment was made on a draft new version of the Gazetteer interface, also called “test application”, to be formally launched in October 2017. [↑](#footnote-ref-2)