

Paper for Consideration by SCUFN

Report by NOAA/NCEI on maintenance of the GEBCO Gazetteer (NOAA) & interoperability with SCUFN Operational Web Services

Submitted by:	Director of the IHO Data Centre for Digital Bathymetry
Executive Summary:	This document reports on the maintenance and enhancements made to the GEBCO Gazetteer application (including interface and underlying database) from all decisions and actions that were agreed at SCUFN-36, as well as on progressing other actions from SCUFN-36 and earlier.
Related Documents:	SCUFN36.1-07.1A, SCUFN37-07.3A
Related Projects:	N/A

Introduction / Background

The NOAA/NCEI software development team, led by Chris Slater, began addressing Gazetteer issues and enhancement requests in April 2024. Work included updating Gazetteer v5 and addressing 8 enhancements and 9 fixes.

The GEBCO Undersea Features Name Gazetteer can be accessed here: ngdc.noaa.gov/gazetteer/

Analysis/Discussion

1. The following enhancements were made to Gazetteer v5:

- Enhancement #1: Limit Feature Search For Public Users
 - Feature search options are limited to specific term, generic term, and area of interest for unauthenticated users.
- Enhancement #2: User Role Edit Page
 - Custom roles besides ADMIN and EDITOR can be created. This is necessary to support KHOA OWS and GEBCO Gazetteer interoperability.
- Enhancement #3: Map Loading Spinner
 - Progress spinners were added to indicate when server resources are being loaded.
- Enhancement #4: Generic Term Links
 - Related generic terms listed in the admin page links to a description of that term.
- Enhancement #5: Build Version Automatically Added In Build
 - The build number is now automatically added when the Gazetteer is built, removing a manual step in configuration.
- Enhancement #6: More Natural Feature Point Sizing
 - Features represented as points now scale up when zooming in, giving a more natural experience.
- Enhancement #7: API Only Service Users
 - A new type of user was defined that can only access the API and not the user interface with login.gov. This API Only user will make the KHOA OWS - GEBCO Gazetteer interoperation easier to configure.
- Enhancement #8: Disable Flyover View From Map

- The globe used in the GEBCO Gazetteer supports a flyover view, which is like flying in a plane across the surface of the globe. This could accidentally be triggered, which could lead to a confusing experience. This behavior was disabled.

2. The following fixes were made to Gazetteer v5:

- Fix #1: “Rendering has stopped” error
 - Occasionally, when navigating the globe, a rendering error would appear and the globe would no longer function. The use of the Cesium map library was refactored to prevent this error.
- Fix #2: Unable To Use Measure Tool Near Top Of Window
 - The user was unable to place measure tool points near the top of the screen near the control area.
- Fix #3: Dropdown Deselection
 - In the feature workflow, once a dropdown was selected, it could not be deselected.
- Fix #4: Feature Export
 - Feature export functionality was restored.
- Fix #5: Proposer And Discoverer Cleared On Error
 - In the feature workflow, the proposer and discoverer were cleared when an error was displayed on the form. This has been fixed.
- Fix #6: Change Terminology On Polar View
 - It was commented that the polar view option, “Disable”, sounded permanent. This was replaced with “Standard View”.
- Fix #7: Search parameters are not displayed when reopening search panel
 - When the search panel was reopened, the previous search parameters were not displayed. This has been fixed.
- Fix #8: Link To IHO Was Broken
 - The previous link was <https://iho.int/srv1/index.php>. This was changed to <https://iho.int/>.
- Fix #9: Unable To Toggle Coordinate Units
 - The coordinate unit setting toggle was not working. This has been fixed.

3. KHOA OWS Interoperation Testing

KHOA has been testing against the demonstration GEBCO Gazetteer instance running at <https://ccog.colorado.edu/gazetteer5>. The Gazetteer software development team has been available for questions and server support.

One database failure occurred on the demonstration server and a backup was restored. Communication and collaboration between the two teams allowed for testing to resume.

4. Gazetteer v5.0.0 Production Deployment

- Feedback on necessary enhancements for v5.0 continues to be collected.
- Two test environments are currently being used to evaluate Gazetteer v5.0: a NOAA internal deployment for testing authentication with Login.gov, and <https://ccog.colorado.edu/gazetteer5> for SCUFN and KHOA testing.
- Gazetteer v5.0.4 will be deployed to production after SCUFN 37 to prevent disruption during critical SCUFN activities

Recommendations

5. It is recommended that:

- SCUFN Members test Gazetteer v5 and notify the IHO DCDB of any issues.
- SCUFN members provide support and feedback when needed during development of the GEBCO Gazetteer and KHOA OWS integration.
- KHOA OWS developers continue to test with the Gazetteer v5 test environment and let GEBCO Gazetteer developers know of any issues, changes, or questions.

Justification and Impacts

6. It should be understood that continued improvements and enhancements of the Gazetteer will remain incremental. Annual funding has been secured and will be used to:

- Perform annual maintenance and upgrades (when necessary)
- Implement a limited number of requested enhancements
- Progress the development of the GEBCO Gazetteer and KHOA Beta-Gazetteer integration

Actions required of SCUFN

7. SCUFN is invited to:

- a. note this paper;
- b. consider the Recommendations and Impacts listed.