



# S-101 Test Dataset Sub-Group Update

S-101 PT Chair Thomas RICHARDSON

**S-101PT9-6.4 14 November 2022**



IHO

## OVERVIEW

International  
Hydrographic  
Organization

- At S-101PT8 the importance of Test Datasets for S-101 implementation was recognised and a Sub-Group was established *Decision S-101PT8-17 refers*
- In early 2022 the group met and discussed the way ahead but there was limited resources and no lead could be found
- Since then using IHO funds the chair has coordinated the delivery of Test Datasets via 2 suppliers



IHO

# WORK UNDERTAKEN

International  
Hydrographic  
Organization

- A scheme was designed based on the structure of the DCEG with a dataset for each section (where needed)
- Specifications for the datasets were then created along with a set of default parameters
- A tender was then conducted and 2 suppliers were successful, these suppliers have been delivering cells in a series of batches for review

| Section | Title   | Start | End | Pages |
|---------|---|-------|-----|-------|
| 1       | Overview  | 1     | 5   | 5     |
| 2       | General   | 5     | 37  | 33    |
| 3       | Metadata Features                                       | 39    | 57  | 19    |
| 4       | Geo Features - Magnetic Data                            | 58    | 60  | 3     |
| 5       | Geo Features - Natural Features                         | 61    | 86  | 26    |
| 6       | Geo Features - Cultural Features                        | 87    | 121 | 35    |
| 7       | Geo Features - Landmarks                                | 122   | 138 | 17    |
| 8       | Geo Features - Ports                                    | 139   | 181 | 43    |
| 9       | Geo Features - Topographic Terms                        | 183   | 184 | 2     |
| 10      | Geo Features - Tides, Currents                          | 185   | 191 | 7     |
| 11      | Geo Features - Depths                                   | 194   | 211 | 18    |
| 12      | Geo Features - Nature of the Seabed                     | 212   | 219 | 8     |
| 13      | Geo Features - Rocks, Wrecks, Foul Ground, Obstructions | 220   | 242 | 23    |
| 14      | Geo Features - Offshore Installations                   | 243   | 257 | 15    |
| 15      | Geo Features - Tracks and Routes                        | 258   | 311 | 54    |
| 16      | Geo Features - Areas, limits                            | 313   | 350 | 38    |
| 17      | Geo Features - Restricted Areas - Overview              | 351   | 356 | 6     |
| 18      | Geo Features - Aids to Navigation - Overview            | 357   | 359 | 3     |
| 19      | Geo Features - Lights                                   | 362   | 382 | 21    |
| 20      | Geo Features - Buoys, Beacons                           | 383   | 444 | 62    |
| 21      | Geo Features - Radar, Radio                             | 445   | 453 | 9     |
| 22      | Geo Features - Services                                 | 454   | 469 | 16    |
| 23      | Cartographic Features                                   | 470   | 470 | 1     |
| 24      | Information types                                       | 471   | 478 | 8     |



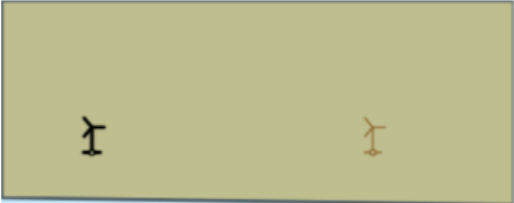


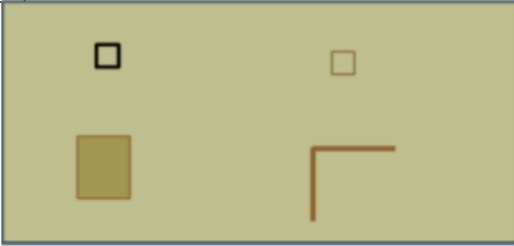
IHO

# APPROACH

International Hydrographic Organization

- The suppliers both converted the specifications to machine readable files in order to generate the test datasets semi automatically
- Each specification has been updated to include screenshots etc
- These specifications are used to maintain the cells and are not a test standard in themselves

| Scenario                      | 7.4   |  |
|-------------------------------|---|--|
| Description                   | Wind Turbine  |  |
| Location                      | Description   |  |
| 32° 30.5898' S 62° 31.8648' E | <ol style="list-style-type: none"><li>1. Wind Turbine (point) visual prominence = 1 (Visually Conspicuous)</li><li>2. Wind Turbine (point) visual prominence = 2 (Not Visually Conspicuous)</li></ol> |  |
| Screen Capture                |    |  |

| Scenario                    | 7.5   |  |
|-----------------------------|---|--|
| Description                 | Fortified Structure   |  |
| Location                    | Description   |  |
| 32° 29.088' S 62° 31.851' E | <ol style="list-style-type: none"><li>1. Fortified Structure (point) category of fortified structure = 1 (Castle)<ol style="list-style-type: none"><li>a. Fortified Structure (point) visual prominence = 1 (Visually Conspicuous)</li></ol></li><li>2. Fortified Structure (point) category of fortified structure = 1 (Castle)<ol style="list-style-type: none"><li>a. Fortified Structure (point) visual prominence = 2 (Not Visually Conspicuous)</li></ol></li><li>3. Fortified Structure (area) category of fortified structure = 2 (Fort)</li><li>4. Fortified Structure (curve) category of fortified structure = 9 (Rampart)</li></ol> |  |
| Screen Capture              |    |  |



IHO

## CURRENT STATUS

International  
Hydrographic  
Organization

- Specifications have now been created for all Test Datasets thanks to Kevin Dickens from NGA for support on this
- The suppliers have provided 15 datasets out of 19 for this work  
[S-101-Test-Datasets/dev at main · iho-ohi/S-101-Test-Datasets \(github.com\)](https://github.com/iho-ohi/S-101-Test-Datasets)
- The final cells are expected to be ready very soon
- An S-100 5.0.0 Exchange Set has been created containing the completed datasets and feedback on this is welcomed

[S-101-Test-Datasets/dev/exports at main · iho-ohi/S-101-Test-Datasets \(github.com\)](https://github.com/iho-ohi/S-101-Test-Datasets)



IHO

# 15 DATASETS

International  
Hydrographic  
Organization

The image displays 15 distinct panels, each representing a different dataset of hydrographic symbols and chart elements. The panels are arranged in a grid-like fashion, with some overlapping or adjacent to each other. The symbols include:

- Panel 1 (Top Left):** A detailed chart section showing a harbor or narrow channel with various navigational markers such as buoys, lights, and structures.
- Panel 2 (Top Middle-Left):** A set of symbols including a diamond, a square, and a series of wavy lines representing a specific chart feature.
- Panel 3 (Top Middle-Right):** Symbols for a "RoRo" (Roll-on/Roll-off) area, featuring a diamond with a ship icon and a square with a ship icon.
- Panel 4 (Top Right):** A series of colored, teardrop-shaped symbols arranged in a row, likely representing a specific type of buoy or marker.
- Panel 5 (Middle Left):** A series of horizontal bars with numbers (1, 2, 3, 4, 5) and arrows, possibly representing a scale or a specific chart element.
- Panel 6 (Middle Middle-Left):** A series of horizontal bars with numbers (1, 2, 3, 4, 5, 6) and arrows, similar to Panel 5 but with a different arrangement.
- Panel 7 (Middle Middle-Right):** A series of horizontal bars with numbers (1, 2, 3, 4, 5, 6) and arrows, similar to Panel 5 but with a different arrangement.
- Panel 8 (Middle Right):** A complex chart section showing a harbor or narrow channel with various navigational markers, including buoys, lights, and structures, with a large "D" symbol overlaid.
- Panel 9 (Bottom Left):** A series of horizontal bars with numbers (3, 4, 5, 6, 7, 8, 9, 10, 11, 14) and arrows, representing a scale or a specific chart element.
- Panel 10 (Bottom Middle-Left):** A series of horizontal bars with numbers (3, 4, 5, 6, 7, 8, 9, 10, 11, 14) and arrows, similar to Panel 9 but with a different arrangement.
- Panel 11 (Bottom Middle-Right):** A series of horizontal bars with numbers (3, 4, 5, 6, 7, 8, 9, 10, 11, 14) and arrows, similar to Panel 9 but with a different arrangement.
- Panel 12 (Bottom Right):** A series of horizontal bars with numbers (3, 4, 5, 6, 7, 8, 9, 10, 11, 14) and arrows, similar to Panel 9 but with a different arrangement.
- Panel 13 (Bottom Far Right):** A series of horizontal bars with numbers (3, 4, 5, 6, 7, 8, 9, 10, 11, 14) and arrows, similar to Panel 9 but with a different arrangement.





IHO

## FUTURE WORK

International  
Hydrographic  
Organization

- As the cells reflect FC 1.0.2 they will need updating to S-101 1.1.0 and the documentation will need updated screenshots once the 1.1.0 Portrayal Catalogue is available
- The cells can be further enriched as additional display scenarios are identified, it would be good if producers could volunteer to support this
- These cells could usefully form part of S-164 test datasets and S-101PT chair will liaise with the S-100 WG on this, conversion of existing S-64 datasets to S-101 is a potential further activity





**IHO**

International  
Hydrographic  
Organization

**QUESTIONS ?**