

International Hydrographic Organization



Summary of the Activities of the IHO Geospatial Information (GI) Registry

HSSC11

Cape Town, South Africa – 06-09 May 2019

IHO Secretariat (GI Registry Manager)

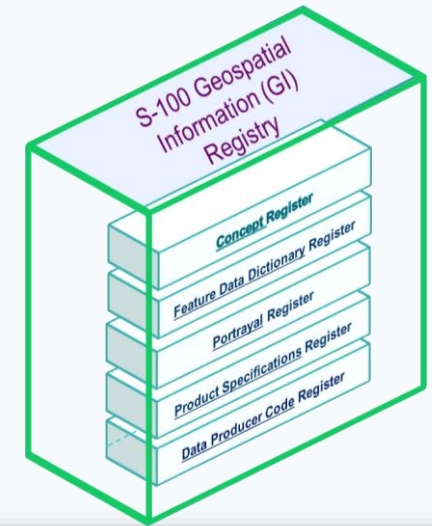
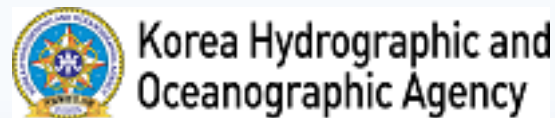


Introduction

- **IHO Geospatial Information(GI) Registry** is the entire information system in which the collection of hydrographic-related Registers are located.
 - Current Registers: Feature Concept Dictionary; **Portrayal**; **Metadata**; **Product Specification**; and **Data Producer Code**.
 - Other Components: **Feature Catalogue Builder (FCB)**; **Portrayal Catalogue Builder (PCB)**; **DCEG Builder**.

NOTE: **Red** text = “Beta” Registry

- **KHOA continues to support the development of the new Registry**



<http://registry.iho.int/>



Summary of Activities of the IHO GI Registry



The screenshot shows the S-100 Geospatial Information Registry website. The header includes the IHO logo and the text 'S-100 Geospatial Information Registry'. A user profile for 'Jeff Wootton' is visible in the top right corner. The main content area features a welcome message for 'S-100 Geospatial Information Registry (Version 3.1)'. Below this, there are sections for 'Notifications' (listing 'Opened NEW Beta Registry 3.1') and 'Progress' (showing 'Register' with 0 listed, 'Development Status' with a table, and 'Product' with 7 released). The footer contains copyright information and 'KHOA Acknowledgements'.

Jeff Wootton Rank: RMSD
Detail > Domain: IHO Hydro

Welcome to the S-100 Geospatial Information Registry (Version 3.1)

This registry is owned by the International Hydrographic Organization (IHO) is managed by the Secretariat of the IHO. The site contains many registers of hydrographic information together with registers of supplementary information owned by specialist domain experts. Each register type is further sub-divided into domains e.g. hydrographic, nautical publications, ice, inland ENC etc. The administration of this registry conforms to IHO Publication S-99 (Operational Procedures for the Organization and Management of the S-100 Geospatial Information Registry) a copy of which can be downloaded [here](#).

The information contained in the Registry can be freely accessed, however items can only be added or changed by the managers of approved Submitting Organizations. Application to become a Submitting Organization can be made by fulfilling the requirements of the prerequisite form available [here](#). Once accepted as a submitting organization you are free to submit proposals to any register. The Registry interface undergoes periodic improvements and any difficulties using this site should be reported to the Registry Manager (jeff.wootton@iho.int).

Please note: It is not necessary to be a submitting organization in order to request new (S-62) Data Producer codes. Requests for new Data Producer codes, or changes to existing codes should be sent to the following email address (adcs@iho.int).

Notifications

Opened NEW Beta Registry 3.1

Progress

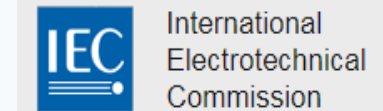
Register: 0 Listed

Development Status

ID	Currents	Schedule
S-129	Approval process	2019-06-30

Product: 7 Released

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KHOA Acknowledgements



Summary of Activities of the IHO GI Registry

- Some statistics:

- Total number of items = 7758** [6371]

- Features (Geo/Meta) = **971** [860]

- Information = **29** [18]

- Simple Attributes = **1076** [908]

- Enumerates = **4612** [4237]

- Complex Attributes = **196** [154]

- Codelists = **22** [20]

- Codelist Values = **185** [174]

- Portrayal Items = 667** [658]

Feature Concept Dictionary Register according to S-100

No.	Type	Valid	Superseded	Retired
1	Feature Type	373	310	288
2	Information Type	28	1	0
3	Simple Attribute Type	637	281	158
4	Enumerated Type	2792	832	988
5	Complex Attribute Type	90	66	40
6	Code List Type	9	2	11
7	Code List Value Type	84	2	99

Portrayal Register

No.	Type	Valid	Superseded	Retired
1	Symbol	582	0	0
2	Line Style	55	0	0
3	Area Fill	26	0	0
4	Font	4	0	0

FCD Register

- FCD Register:

- Valid items = **4013** [4610]

- Superseded items = **1494** [1190]

- Retired items = **1584** [571]

- No. of proposals Apr 18 – Apr 19 = **1127** [624]



Summary of Activities of the IHO GI Registry

- Domains (FCD Register):

- IHO Hydrographic – (IHO Working Groups (S-100WG, NIPWG, S101PT, S-102PT, S-121PT, TWCWG, WWNWS Sub-WG) (UKCMPT)

- Inland ENC's – (IEHG)

- Sea Ice – (WMO)

- Weather – (WMO)

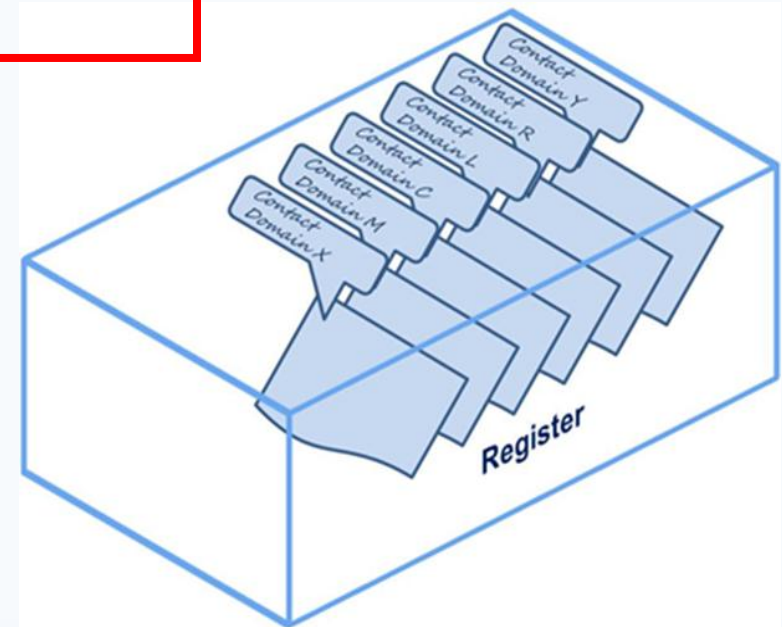
- IALA AtoNs – (IALA)

- IALA VTS – (IALA)

- IALA AIS – (IALA)

- IEC – (IEC)

- ~~• Under Keel Clearance Management – (UKCM Project Team)~~



Summary of Activities of the IHO GI Registry

• Submitting Organizations (FCD Register):

- IHO, IEC, IALA, WMO, IEHG
- S-100WG (KHOA, NOAA, SMA, Spanish HO)
- NIPWG (BSH, UNH)
- UKCMPT (AMSA)
- S-121PT

The screenshot shows the 'Member' registration form in the IHO GI Registry. The form is titled 'Member' and has a navigation bar with tabs for HOME, INTRODUCTION, GI REGISTERS, and PROPOSAL. A note at the top states: 'Note: Fields marked with an asterisk(*) are mandatory and must be filled in.' The form fields include: *Rank: Submitting Organization; *Domain(FCD): IHO Hydro, WMO ICE, Inland ENC, Port ENC, IALA AIS, IALA AtoNs, IALA VTS, WMO Weather, AMI, IEC, UKM; *Domain(Portrayal): IHO Hydro, Inland ENC; *ID: Duplication Check, Please enter at least 6 characters with a combination of numeric and lower case; *Password: Enter a combination of 6-16 numbers and lower case; *Re-enter Password; *Given Name; *Surname; *Organization: Select.

• Domain Control Body (FCD Register):

- IHO, IEC, IALA, WMO, IEHG
- S-100WG, NIPWG

~~Executive Body?~~

• Submitting Organizations (Portrayal Register):

- IHO, IALA, IEHG
- S-100WG (KHOA, NOAA, SMA, Spanish HO)
- NIPWG (BSH), TWCWG

• Domain Control Body (Portrayal):

- IHO, IEHG
- S-100WG, NIPWG



Summary of Activities of the IHO GI Registry

- “Beta” Registry:
 - Portrayal, Product Specification, Data Producer Code and Metadata Registers now active
 - Includes links to Test Bed, guidance and tools – (FCB, PCB, DCEG Builder, S-57 to S-101 Converter, S-100 viewers)
 - All IHO web site links to published S-100 based Product Specifications link to the associated item in the Product Specification Register
 - “Clean-up” of current FCD Register content in progress for transition to Concept Register

The screenshot shows the homepage of the S-100 Geospatial Information Registry. It includes a navigation menu with options like HOME, HELP&GUIDANCE, GI REGISTERS, MY TASKS, PROPOSAL, TEST BED, and Administration. The main content area has a welcome message and a progress section with three circular gauges: Register (0), Development Status (7), and Product (7). There are also notifications and a progress bar at the bottom.

The screenshot shows the 'Product Specification' page. It features a table with the following data:

No	Product ID	Name	Version	Status	Domain	Date updated	Document view
1	S-100	Universal Hydrographic Data Model	4.0.0	Released	IHO Hydro	2019-01-03	PDF
2	S-102	Electronic Navigational Chart	1.0.0	Released	IHO Hydro	2019-04-19	PDF
3	S-103	Bathymetric Surface	1.0.0	Released	IHO Hydro	2019-06-06	PDF
4	S-111	Surface Currents Product Specification	1.0.0	Released	IHO Hydro	2019-01-03	PDF
5	S-122	Marine Protected Areas	1.0.0	Released	IHO Hydro	2019-01-15	PDF
6	S-123	Marine Radio Services	1.0.0	Released	IHO Hydro	2019-01-15	PDF

The screenshot shows the 'REPOSITORY' page. It features a table with the following data:

No	Name	Version	Date Updated
1	Proposal form to the Concept register and the FCB	1.0.0	2018-06-25
2	S-100 DCEG Builder_Under construction	0.1	2018-06-29
3	S-100 Feature Catalogue Builder	1.0.1	2018-06-27
4	S-100 Portrayal Catalogue Builder (Beta version)	1.0.0	2018-07-03
5	S101 Converter	1.0.0	2019-04-01
6	SPANAR S100Viewer	1.0.0	2018-12-05

The screenshot shows the detailed view of Product ID S-101. It includes sections for Product Information, Version Information, and Product Information. The Product Information section includes details like Name, Status, Domain, and Date updated. The Version Information section shows the current version (1.0.0) and its release date (2019-12-21).



Summary of Activities of the IHO GI Registry

- “Beta” Registry:
 - Portrayal Register: Additional 15 types added to support all Product Specification portrayal requirements in ECDIS

S-100 Geospatial Information Registry

Portrayal Register

Home / GI REGISTERS / Portrayal

Symbol 581 | Line Style 55 | Area Fill 25 | Font 3 | Others

Domain: ALL | Status: Valid | Type name or definition: [Search]

No	Preview	Name	Definition	Item Type	Status	Date Accepted
1		ACHARE02	anchorage area as a point at small scale, or anchor points of mooring trot at large scale	symbol	Valid	-
2		ACHARE51	anchorage area	symbol	Valid	-
3		ACHBRT07	designated anchor berth for a single-vessel	symbol	Valid	-
4		ACHRES51	area where anchoring is prohibited or restricted	symbol	Valid	-
5		ACHRES61	area where anchoring is prohibited or restricted, with other cautions	symbol	Valid	-
6		ACHRES71	area where anchoring is prohibited or restricted, with other information	symbol	Valid	-
7		AIRARE02	symbol for airport as a point	symbol	Valid	-
8	*	AIRARE02P	pattern of symbols for an airport area	symbol	Valid	-
9		BCNCAR01	cardinal beacon, north, simplified	symbol	Valid	-
10		BCNCAR02	cardinal beacon, east, simplified	symbol	Valid	-
11		BCNCAR03	cardinal beacon, south, simplified	symbol	Valid	-

Others

Display Mode 8 | Display Plane 4 | Context Parameter 0 | Symbol Schema 0 | Linestyle Schema 0

Viewing Group 158 | Viewing Group Layer 8 | Colorprofile Schema 0 | Areafill Schema 0 | Pixmap Schema 0

Color Token 0 | Color Profile 0 | Cascading style sheet 0 | Display priority 0 | Pix Map 0

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KHOA Acknowledgements



Summary of Activities of the IHO GI Registry

• “IHO GI Registry Workshop”

- Overview and familiarity
- Registry roles and responsibilities
- Registry structure
- Registry content
- “Beta” Registry
- Tools
 - Feature Catalogue Builder
 - Portrayal Catalogue Builder
 - DCEG Builder
- Documentation (S-99, S-99 Annex A, S-100 Part 2)



Welcome to the S-100 Geospatial Information Registry (Version 2.1)

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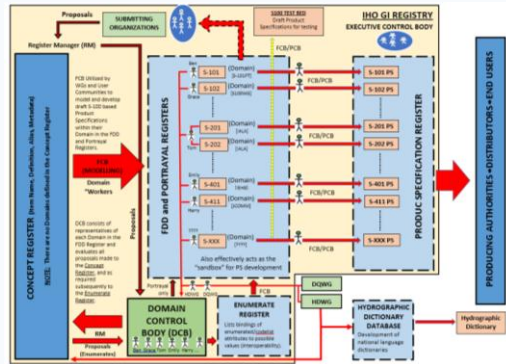
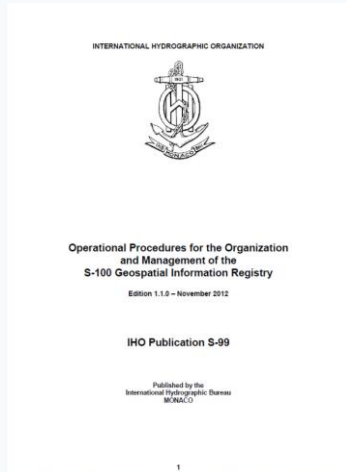
Once accepted as a submitting organization you are free to submit proposals to the Registry. The Registry interface undergoes periodic improvements and any difficulties using this site should be reported to the [Registry Manager](#).

• Go to [Feature Catalogue Builder](#)

Feature Concept Dictionary Register according to S-100					Portrayal Register				
No.	Type	Valid	Superseded	Retired	No.	Type	Valid	Superseded	Retired
1	Feature Type	223	211	289	1	Symbol	382	0	0
2	Information Type	25	1	0	2	Line Style	55	0	0
3	Simple Attribute Type	622	453	138	3	Area Fill	25	0	0
4	Enumeration Type	2658	858	1235	4	Point	6	0	0
5	Complex Attribute Type	92	85	82					
6	Code List Type	3	2	11					
7	Code List Value Type	85	2	98					

Administration : Members

No.	Individual Name	Organization	Email	State Accepted
34	Steve Johnson	NAVO	steve.johnson@navo.int	2018-05-13
35	Yvette Lee	CHINA/RSNA	lee_yvette@rsna.com	2018-05-08
36	Anna Hand	CHS	anna.hand@chn.gov.au	2018-05-14
37	Linda Lee	S-100 UK/CHPT	linda.lee@chn.gov.au	2018-05-19
38	Linda Lee	S-100 UK/CHPT	linda.lee@chn.gov.au	2018-05-19
39	Harriet Holmbeck	IHO (S-100)US	holmbeck@noaa.gov	2018-07-20
40	Jonathan Pritchard	IHO (S-100)US	jpritchard@noaa.gov	2018-07-24
41	Edward Kowalik	IHO (S-100)US	edward.kowalik@noaa.gov	2018-05-13
42	Geert Bille	CHC	g.bille@chc.be	2017-12-07
43	Geert Bille	CHC	g.bille@chc.be	2017-12-06
44	Jan Schriber-Planenberg	IHO (S-100)US	jan.schriber-Planenberg@noaa.gov	2017-12-13
45	Jan Schriber-Planenberg	CHC	jan.schriber-Planenberg@noaa.gov	2017-12-12
46	Jeff Swanson	IHO Secretariat	jeffswan@iho.int	2017-12-12
47	Hans Engling	CHS	hans.engling@chn.gov.au	2017-08-29
48	Stewart Colburn	CHS	stewart.colburn@chn.gov.au	2017-08-29
49	Stewart Colburn	CHC	stewart.colburn@chn.gov.au	2017-08-27
50	Stewart Colburn	CHC	stewart.colburn@chn.gov.au	2017-08-26
51	Jeff Swanson	IHO Secretariat	jeffswan@iho.int	2017-02-16



S-100 Geospatial Information Registry

Welcome to the S-100 Geospatial Information Registry (Version 3.1)

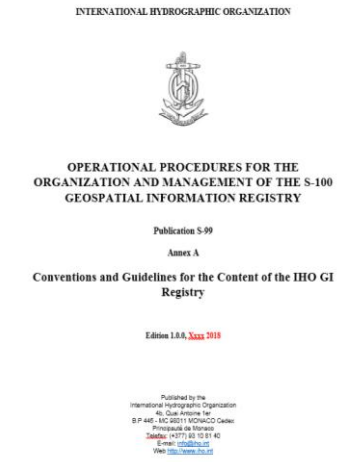
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Progress: 0 Registers, 5,128 Development Status, 7 Products



Catalogue Information

Feature Types	Information Types
1. Feature Type	1. Symbol
2. Information Type	2. Line Style
3. Simple Attribute Type	3. Area Fill
4. Enumeration Type	4. Point
5. Complex Attribute Type	
6. Code List Type	
7. Code List Value Type	

How Work Flows



Summary of Activities of the IHO GI Registry

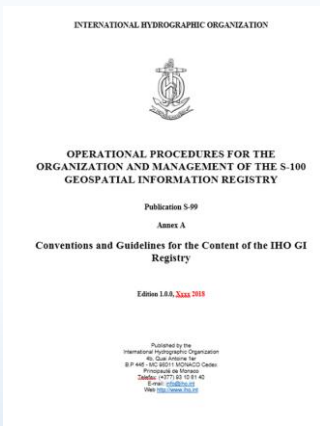
- “IHO GI Registry Workshop” outcomes
 - Common understanding of the structure and processes of the IHO GI Registry
 - Further work required to finalize the final structure of the “Beta” Registry (TSM6)
 - Agreement on fundamental conventions for FCD (Concept) Register content
 - Demonstration of Registry associated tools (FCB, PCB, DCEG Builder)
 - Commitment to progress the review of Registry management-related documentation (S-100 Part 2, S-99, S-99 Annex A) (TSM6 and S-100WG5)
 - Enhancement and confirmation of membership of the IHO GI Registry Project Team (GIRegPT)



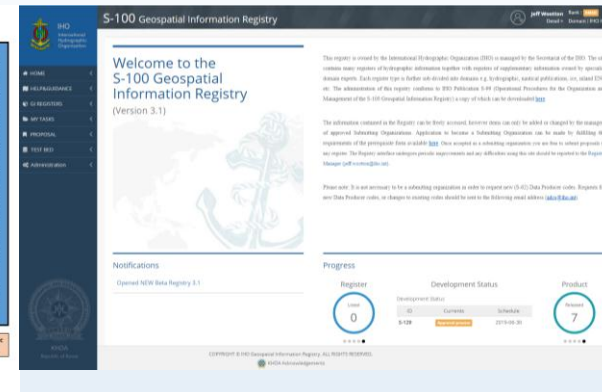
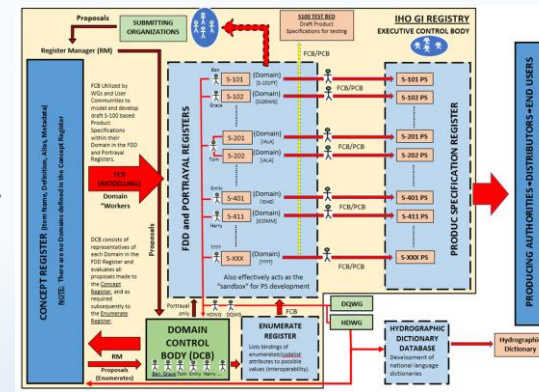
GI Registry – Way Forward

- Progressive improvement:
 - Complete Conventions and Guidelines document (in progress);
 - Apply approved fundamental guidelines and conventions to content of the FCD Register (in progress);
 - Populate “new” Concept Register and Data Dictionary Registers with consistent, “clean” concepts (late 2019).
 - Minimum impact on Product Specifications in development

Consultation – GI Registry PT and DCB



ID	Name	Description	Status
1	1.000000	1.000000	Working
2	1.000001	1.000001	Working
3	1.000002	1.000002	Working
4	1.000003	1.000003	Working
5	1.000004	1.000004	Working
6	1.000005	1.000005	Working
7	1.000006	1.000006	Working
8	1.000007	1.000007	Working
9	1.000008	1.000008	Working
10	1.000009	1.000009	Working
11	1.000010	1.000010	Working
12	1.000011	1.000011	Working
13	1.000012	1.000012	Working
14	1.000013	1.000013	Working
15	1.000014	1.000014	Working
16	1.000015	1.000015	Working
17	1.000016	1.000016	Working
18	1.000017	1.000017	Working
19	1.000018	1.000018	Working
20	1.000019	1.000019	Working
21	1.000020	1.000020	Working
22	1.000021	1.000021	Working
23	1.000022	1.000022	Working
24	1.000023	1.000023	Working
25	1.000024	1.000024	Working
26	1.000025	1.000025	Working
27	1.000026	1.000026	Working
28	1.000027	1.000027	Working
29	1.000028	1.000028	Working
30	1.000029	1.000029	Working
31	1.000030	1.000030	Working
32	1.000031	1.000031	Working
33	1.000032	1.000032	Working
34	1.000033	1.000033	Working
35	1.000034	1.000034	Working
36	1.000035	1.000035	Working
37	1.000036	1.000036	Working
38	1.000037	1.000037	Working
39	1.000038	1.000038	Working
40	1.000039	1.000039	Working
41	1.000040	1.000040	Working
42	1.000041	1.000041	Working
43	1.000042	1.000042	Working
44	1.000043	1.000043	Working
45	1.000044	1.000044	Working
46	1.000045	1.000045	Working
47	1.000046	1.000046	Working
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55	1.000054	1.000054	Working
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60	1.000059	1.000059	Working
61	1.000060	1.000060	Working
62	1.000061	1.000061	Working
63	1.000062	1.000062	Working
64	1.000063	1.000063	Working
65	1.000064	1.000064	Working
66	1.000065	1.000065	Working
67	1.000066	1.000066	Working
68	1.000067	1.000067	Working
69	1.000068	1.000068	Working
70	1.000069	1.000069	Working
71	1.000070	1.000070	Working
72	1.000071	1.000071	Working
73	1.000072	1.000072	Working
74	1.000073	1.000073	Working
75	1.000074	1.000074	Working
76	1.000075	1.000075	Working
77	1.000076	1.000076	Working
78	1.000077	1.000077	Working
79	1.000078	1.000078	Working
80	1.000079	1.000079	Working
81	1.000080	1.000080	Working
82	1.000081	1.000081	Working
83	1.000082	1.000082	Working
84	1.000083	1.000083	Working
85	1.000084	1.000084	Working
86	1.000085	1.000085	Working
87	1.000086	1.000086	Working
88	1.000087	1.000087	Working
89	1.000088	1.000088	Working
90	1.000089	1.000089	Working
91	1.000090	1.000090	Working
92	1.000091	1.000091	Working
93	1.000092	1.000092	Working
94	1.000093	1.000093	Working
95	1.000094	1.000094	Working
96	1.000095	1.000095	Working
97	1.000096	1.000096	Working
98	1.000097	1.000097	Working
99	1.000098	1.000098	Working
100	1.000099	1.000099	Working
101	1.000100	1.000100	Working



Activities of the IHO GI Registry

- Actions for HSSC11:
 - **Note** the activities of the IHO GI Registry since April 2018.



Activities of the IHO GI Registry

THANK YOU



Activities of the IHO GI Registry



For more information: <https://www.iho.int>
IHO Secretariat Contact: jeff.wootton@iho.int

