

# 6<sup>th</sup> Meeting of the East Asian Hydrographic Commission Steering Committee (EAHC SC)

Bali, Indonesia, February 2019

IHO Secretariat Report

Dr Mathias Jonas  
Secretary-General



# Oral report of the IHO Secretariat along the IHO Work Programme

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1. Corporate Affairs
2. Hydrographic Standards and Services
3. Inter Regional Cooperation and Support
4. IHO Secretariats operations



# 1. Corporate Affairs

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- Outcome of the 2<sup>nd</sup> IHO Council (*supplement the Report of the EAHC Chair*)
- Support of UN Decade of the Ocean Science for Sustainable Development;
- Sponsorship of Seabed2030;



# Corporate Affairs / 2<sup>nd</sup> IHO Council

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- Important discussions about S-100, shape of Capacity Building, Crowd Source Bathymetry and Strategic Plan review
- Council brings new vigour to the intersessional operations of the IHO
- EAHC is well represented (6 of 30) – consider nomination prior to 2<sup>nd</sup> Assembly 2020 right now Malaysia and Indonesia occupy seats allocated to EAHC



# Corporate Affairs / UN Decade of the Ocean Science (1)

- Promote UN-GGIM Statement of shared guiding principles for geospatial information management, highlighting the use of standards and interoperability for hydrographic data.
- Continued support of GGIM's Working Group on Marine Geospatial Information.
- Contribution to the 1st World Geospatial Information Congress (UNWGIC) in Deqing, Zhejiang Province, China.



# Corporate Affairs / UN Decade of the Ocean Science (2)

- Update of MoU with the Intergovernmental Oceanographic Commission (IOC) of UNESCO:
  - Promote national and regional MSDI.
  - Support IOC's vision of an atlas of the oceans through application of the S-100 framework for oceanographic information such as chemistry, biology etc.
  - Include reference to IHO's and IOC's GIS services.
  - Strengthen cooperation in the development and maintenance of e-learning training as part of capacity building.



# Corporate Affairs / Seabed2030

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- IHO and IOC are acknowledged sponsors of the project (not in fiscal terms). Regular sponsor's meeting of all parties involved.
- Clear task sharing between GEBCO project and Seabed2030.
- Recruitment of a new project director is well underway.



## 2. Hydrographic Standards and Services

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- IMO Criticism on ECDIS performance in the field
- Progress within the S-100 framework
- Nautical Information Provision Working Group (NIPWG)  
update
- Data Quality Maintenance Working Group (DQMWG)  
update





# HSSC / recent IMO comments on ECDIS

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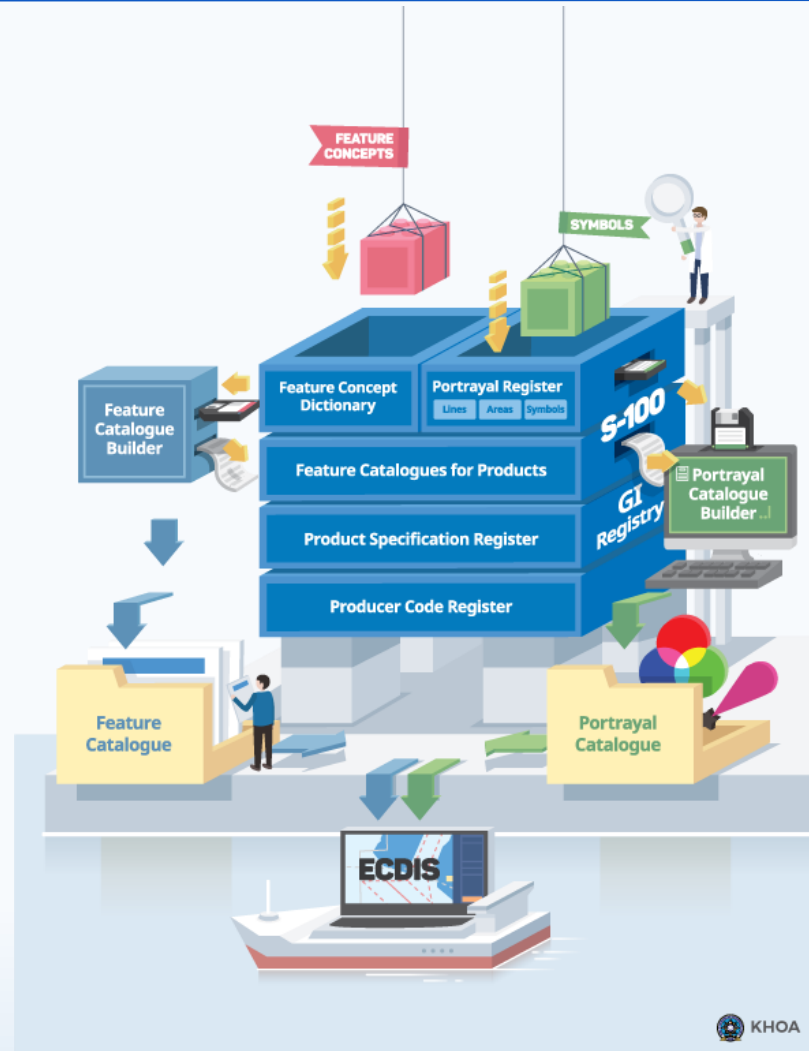
At the IMO-NCSR6 the UK Marine Accident Investigation Branch (MAIB) and the Danish Maritime Accident Investigation Board (DMAIB) presented a safety study into use ECDIS on board ships. The investigators had embarked on 29 ECDIS-fitted vessels of various types: dredgers, buoy layers, general cargo ships, container ships, tankers and cruise ships.

Compilation of views of the interviewed deck officers in consideration of future ECDIS improvements:

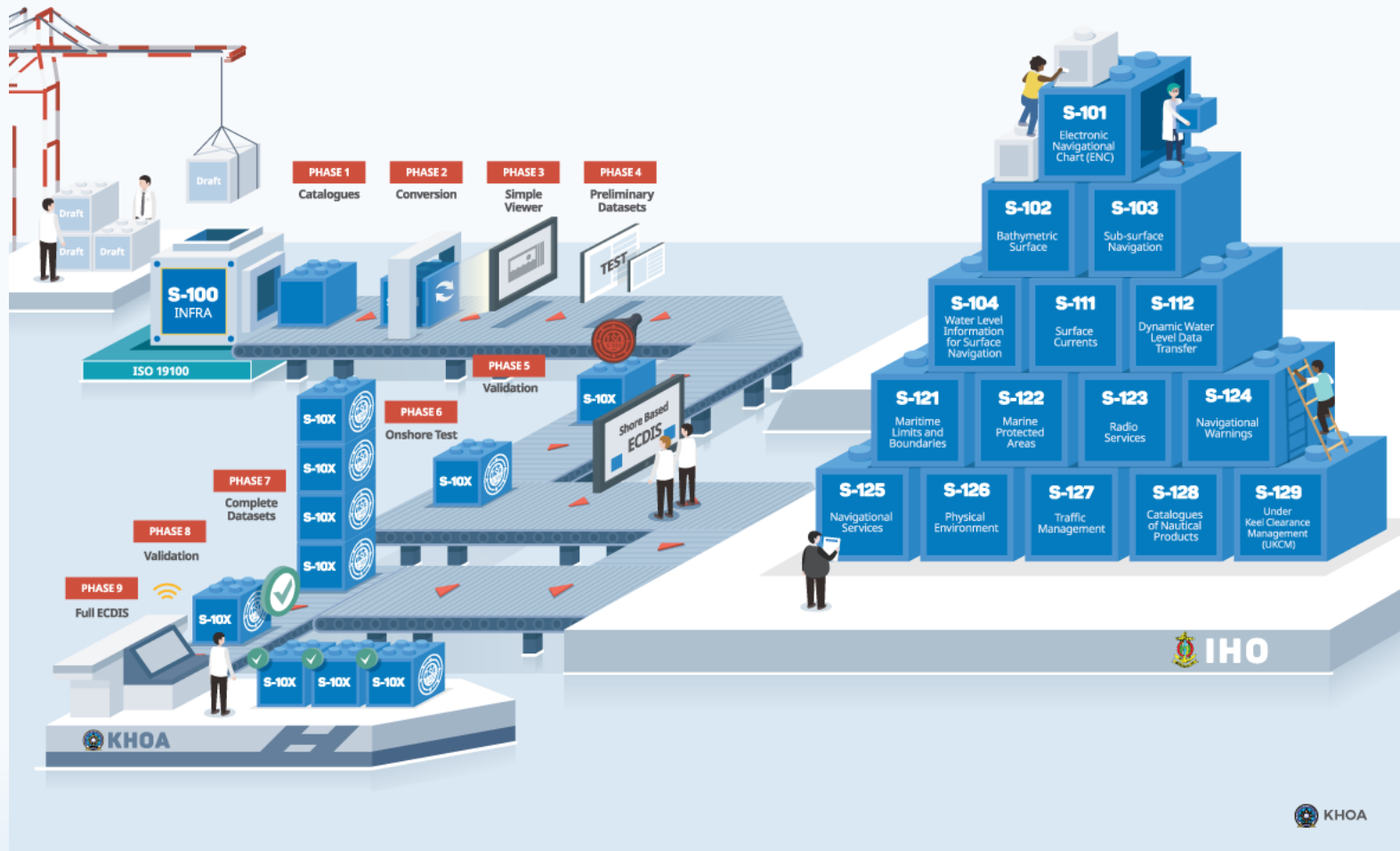
- fewer alarms;
- bigger screens and more touch-screen and tablet technology;
- simpler systems (less complex menu structures);
- standardized interfaces such as keyboards;
- **more integration (radar/digital publications/NAVTEX);**
- **increased contour density;**
- **the display of height of tide data;**
- **the display of MARPOL limits;**
- **better font/symbol size and colour;**
- **better palettes/contrast in all time of day modes; and**
- faster internet.



# HSSC / S-100 Progress / S-100 Edition 4.0.0 approved



# HSSC / S-100 Progress / S-100 GI Registry ren



## Product Specifications of IHO (Numbers S-101 to 199)

S-101	Electronic Navigational Chart (ENC)
S-102	Bathymetric Surface
S-103	Sub-surface Navigation
S-104	Tidal Information for Surface Navigation
S-111	Surface Currents
S-112	Dynamic Water Level Data
S-121	Maritime Limits and Boundaries
S-122	Marine Protected Areas
S-123	Radio Services
S-124	Navigational Warnings
S-125	Navigational Services
S-126	Physical Environment
S-127	Traffic Management
S-128	Catalogues of Nautical Products
S-129	Under Keel Clearance Management

## Product Specifications of International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) (Numbers S-201 to 299)

S-201	Aid to Navigation Information
S-210	Inter-VTS Exchange Format
S-230	Application Specific Messages
S-240	DGNSS Station Almanach
S-245	eLoran ASF Data
S-246	eLoran Station Almanac

## Product Specifications of Intergovernmental Oceanographic Commission (IOC) (Numbers S-301 to 399)

unfortunately still empty

## Product Specifications of other Organizations (Numbers from S-401)

S-401	Inland ENC ( <a href="#">Inland ENC Harmonization Group</a> )
S-411	Ice Information ( <a href="#">Joint Technical Commission for Oceanography and Marine Meteorology</a> )
S-412	Weather Overlay (JCOMM)



# HSSC / S-100 Progress

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- First versions of S-101 (Next Generation ENC) and S-111 Surface Currents are now out for comments;
- S-101 Edition 2.0.0 is scheduled to be released by the end of 2020 and can be used for sea-trials. Edition 3.0.0 is scheduled to be released by the end of 2022 for full production use.
- S-122 (Marine Protected Areas) and S-123 (Radio Services) approved.

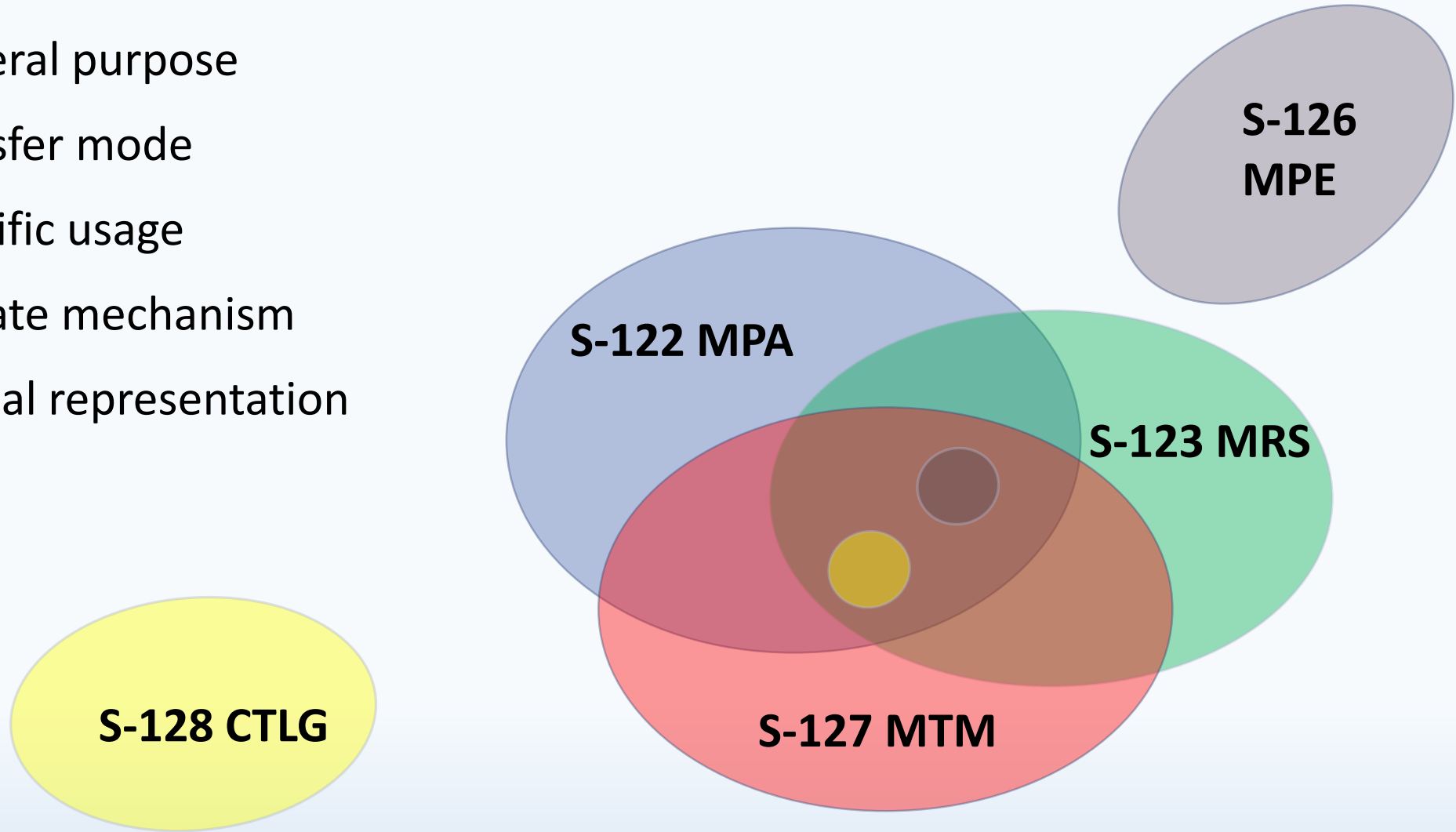


# HSSC / S-100 Progress



# HSSC / NIPWG update – compelling need for harmonization

- General purpose
- Transfer mode
- Specific usage
- Update mechanism
- Spatial representation



# HSSC / DQMWG update (1) – MASS needs quality of data

Harmonization of data quality indicators, describing to allocate S-44 values for different types of survey techniques and move to CATZOC values.

- Crowd Source Bathymetry Data is assigned CATZOC = D.
- Satellite Derived Bathymetry is assigned CATZOC = C.
- LIDAR data is assigned CATZOC = B, one member sometimes assigns CATZOC = A2.
- Surveys from ports are usually assigned CATZOC = B, some port authorities assign CATZOC = A1, to be evaluated by the HO on a port-by-port basis.
- Some members do not downgrade CATZOC over time due to temporal variation but provide M\_SREL data.

Outcome: Guidance on quality aspects to allocate meaningful quality values of bathymetric data in future S-101 ENC. Description of a the convertor of S-57 (CATZOC) to S-101 (QoBD).



# HSSC / DQMWG update (2) – quality of data makes ECDIS better

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Data Quality Checklist for Product Specifications to become the Part C of the IHO Publication S-97 – *IHO Guidelines for Creating S-100 Product Specifications*.

During an interactive workshop, the meeting considered methodologies for the display of quality information.

A benchmarking of proposals and current standards was made for two user modes:  
- planning and monitoring.

While noting the obstacles to of an evolution of IMO's ECDIS standards in the short term, several findings were identified that will help to define a new portrayal concept. When finalized, it will be submitted to the other HSSC Working Groups for testing, and possible implementation in the design of future S-101 ECDIS.

**IMO MASS - Maritime Autonomous Surface Ships – is on the horizon!**





# 3. Inter Regional Cooperation and Support

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- ENC coverage and overlap update
- GEBCO project update
- Crowd Sourced Bathymetry update
- Iridium as new Marine Safety Information provider



# IRCC / ENC coverage and overlap update (1)

## 1.2.1 The Worldwide Electronic Navigational Database (WEND)

RENC Membership	ENCs			Producers		
	Net New cells this month	Total	% of data	New this month	Total	% of Countries
IC-ENC	8	8049	47.1	1	44	58.67
PRIMAR	14	3714	21.7	0	16	21.33
Non RENC	-103	5333	31.2	0	15	20.00
<b>Total</b>	<b>-83</b>	<b>17096</b>	<b>100.00</b>	<b>1</b>	<b>75</b>	<b>100.00</b>

<sup>a</sup> = 2 Dual – Russia, Mozambique

<sup>b</sup> = Vietnam transferring to Primar during 2018.

## IC-ENC's Overlapping Data Reporting and Analysis (WENDWG9 WP)

Status	Definition	WENDWG7	WENDWG8	WENDWG9
Live	Overlap exists	187	231	261
Accept	Overlap exists, but is Acceptable (very insignificant)	13	23	53
Potential	Overlap identified at IC-ENC validation stage, activity is underway to try to prevent issuing an overlap.	15	68	86
Resolved	An overlap, or potential overlap, that has been successfully resolved.	31	114	199
Unassessed	Live Overlap not yet assessed	44	0	0



# IRCC / ENC overlap update for IC-ENC members (2)

RHC	"Live Overlaps" - Overall Severity of Risk				TOTAL
	LOW	MEDIUM	HIGH	UNASSESSED	
ARHC/EAHC	3				3
BSHC	6				6
EAHC	46	34			80
EAHC	2				2
HCA	1				1
MACHC	1				1
MBSHC	80	24			104
NIOHC	3	1			4
NSHC	14				14
RSAHC	5	17			22
SAIHC	1	2			3
USCHC	3				3
RSAHC/NIOHC	4	1			5
SAIHC/HCA	1				1
SWPHC/HCA	3				3
SWAHC	3				3
BSHC/NHC	2				2
EAHC/SWPHC	4				4
<b>Total</b>	<b>182</b>	<b>79</b>	<b>0</b>	<b>0</b>	<b>261</b>

*A detailed overlap report was delivered to EAHC by IC-ENC in September 2018*



# IRCC / GEBCO Project update

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- IHO Data Center for Digital Bathymetry (DCDB) released new data viewer.
- DCDB will release new global grid of 15 Arc resolution end of February 2019 – four times higher resolution as before!
- DCDB negotiates with numerous new CSB providers to interface to their data collections.

**EAHC Action:**

**Take note and promote the GEBCO/DCDB-concept nationally**



# IRCC / Crowd Source Bathymetry

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- B-12 Guidance on Crowd source bathymetry is out for voting (IHO CL11 refers).
- IHO CL11 comes with a separate template to seek for national acceptance of CSB in national waters of jurisdiction.
- Target date for approval of B-12 Guidance on Crowd source bathymetry Edition 2.0.0 is 5<sup>th</sup> April 2019.
- Target date for reply of national position on CSB in waters of national jurisdiction is 20<sup>th</sup> May 2019.

**EAHC Action: Take note and treat B-12 voting and template reply as separate activities**



# IRCC / Iridium as new MSI provider (1)

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- *Maritime Mobile Satellite Services provided by Iridium Satellite LLC* are now recognized for use in GMDSS.
- Draft interim preliminary text of a WWNWS system service manual be presented to MSC 101 for wider publication to allow Initial Operational Certificates (IOC) to be issued to selected NAV and MET Area Coordinators and RCCs, which will enable operational testing of the system and services.
- It is proposed that an expanding number of certificates will be issues throughout 2019 so that Full Operational Certificates (FOC) can be issued around the end of 2019.
- The necessary SOLAS amendments are planned to come into force on 1 January 2020, after which Iridium can commence full operational service.

**EAHC Action: Take note of the anticipated rearrangements and prepare information for affected shipping industry.**



## IRCC / Iridium as new MSI provider (2)

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- All NAV and MET Area Coordinators and RCCs will be required to provide MSI and SAR services via all recognized mobile satellite service providers, i.e. Inmarsat and Iridium.
- To meet their SOLAS requirements, ships will be required to carry either a type approved Inmarsat or Iridium receiver, they can of course carry one of each to meet the spare backup requirement.
- All information providers will be required to transmit their messages via both Inmarsat and Iridium, and in the future via all other IMO appropriate recognized mobile satellite service providers, global or regional coverage, such as BeiDou and the UAE based Thuraya satellite system, which has applied for recognition for the Gulf region.
- Note at present, unlike GNSS, there are no multi-system capable ship receivers available.

**EAHC Action: Take note of the anticipated rearrangements and prepare information for affected shipping industry.**



## 4. IHO Secretariats operations

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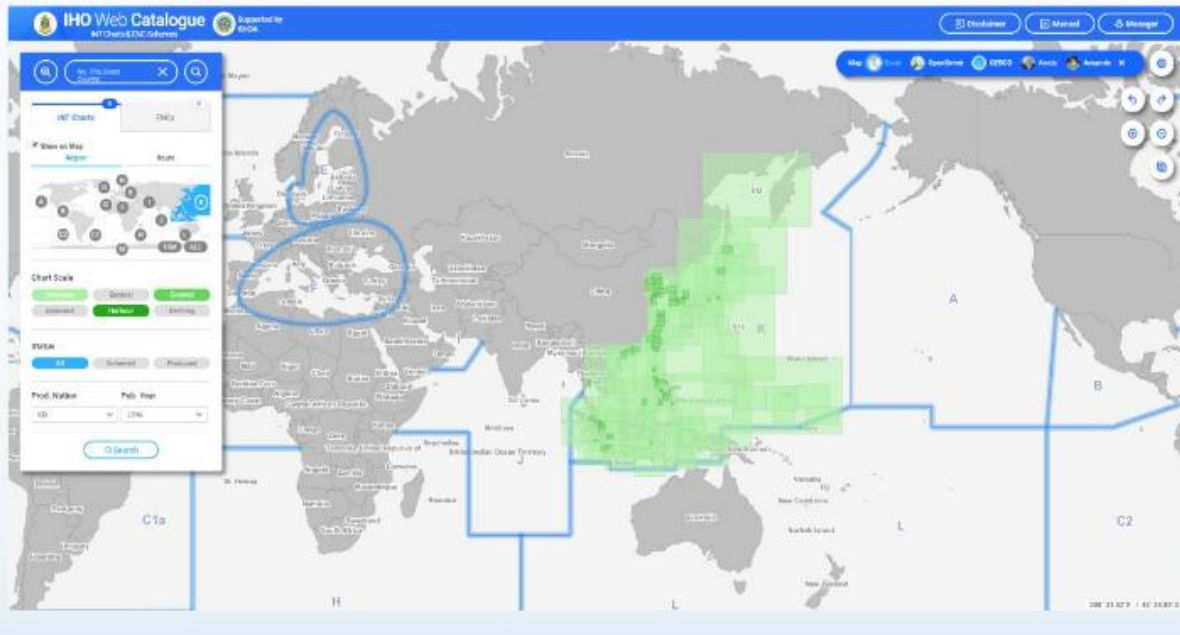
- Renewal of INToGIS Service interface
- Online voting for CLs
  
- Ongoing activities on a technical overhaul of IHO Secretariat's communication channels
  - Social media
  - Corporate Design
  - Website
  
- Preparations for IHO Centenary celebrations



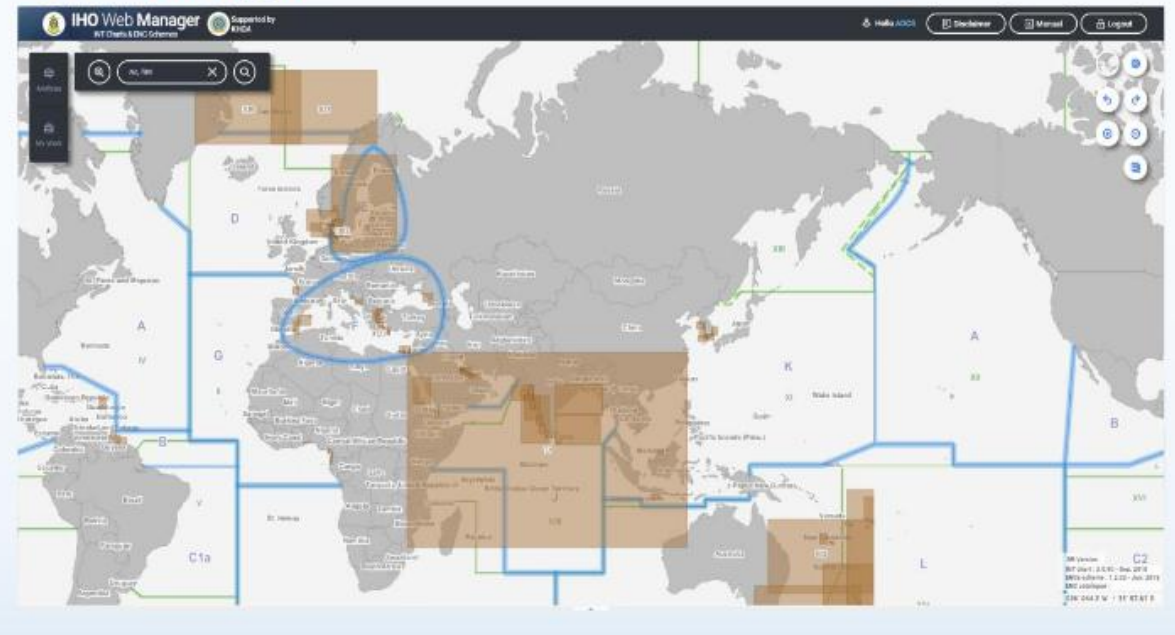


# Secretariats operations / INTToGIS II

## Web Catalogue



## Web Manager



# Secretariats operations / online voting (1)

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(for CL response, C-55 and P-5)

- Member States will be able to submit their information directly from IHO Online form system. It will be soon announced with its password to enter.
- It will be used for CL voting and IHO publications C-55 and P-5 (Yearbook) updating.
- Data providers are requested to put two email addresses (one: personal, the other: official HO address listed in P-5) They will receive a PDF receipt message when data is submitted.
- The traditional submission (postal letter, fax, email) is also available.



## A submission page to the IHO Circular Letter.



### Your response to the IHO CL (receipt)

For your submission, \*

- I consent that the IHO Secretariat will collect and use submitted information only for the original purpose to collect Circular Letter responses.
- No, I do not consent.

[Save and Resume Later](#)



Powered by Formstack [Create your own form >](#)



# Secretariats operations / online voting (2)

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An image of IHO Online form system

Q1

Does your country approve the proposal of Q1?

Yes

No

-

Comment Q1 (if necessary)



Powered by Formstack [Create your own form >](#)



# Secretariats operations / online voting (3)



Submission Time: January 31, 2019 4:08 pm  
Unique ID: 474119437

## Your response to the IHO CL (receipt)

The IHO Secretariat will collect and use submitted information only for the original purpose to collect Circular Letter responses. Do you agree with it?  Yes, I agree.

IHO CL number	9999/2019
	JP   Japan
Data provider's Name	Mr Test Person
Data provider's email address	naohiko.nagasaka@iho.int
Official email address of the hydrographic organization	naohiko.nagasaka@iho.int
Organization to which data provider is belonging	Test Organization
Phone of data provider	+377 93 10 81 00
Department, division of data provider	Test Department
Position or job title of data provider	Test Position

## Q1

Does your country agree to the revision of IHO publication C-999?  Yes

## Q2

Does your country have any idea on blahblah?  This is a test comment! French, Spanish characters also accepted! Ç é á, è, ì, ó, ú à, è, ú!!

An image of PDF receipt which will be delivered to the two declared email addresses.

The declared email addresses will be checked with the addresses listed in the latest Yearbook.

So, please keep updating the information on Yearbook (P-5).



# Secretariats operations / social media

- Thanks to US remote secondment, the Secretariat is now active under LinkedIn and youtube.

The screenshot shows the LinkedIn profile of the International Hydrographic Organization (IHO). The profile includes a cover image of a colorful bathymetric map, a profile picture with the IHO logo, and a bio stating "Government Relations - Monaco, Monaco Cedex - 614 Followers". A navigation menu on the left lists "Home", "About", "Jobs", and "People". The main content area features an update from the IHO page dated 1w, announcing the "U.S. HYDRO 2019 CONFERENCE" held from March 18-21, 2019, at the Beau Rivage Resort & Casino in Biloxi, Mississippi. The update includes a promotional poster for the conference and logos for sponsors such as IDR, HT, SEA TECHNOLOGY, and ONT POB. The update has 27 likes and options to like, comment, and share.

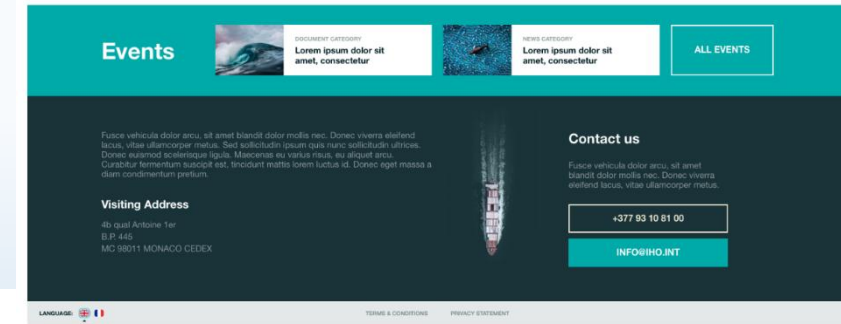
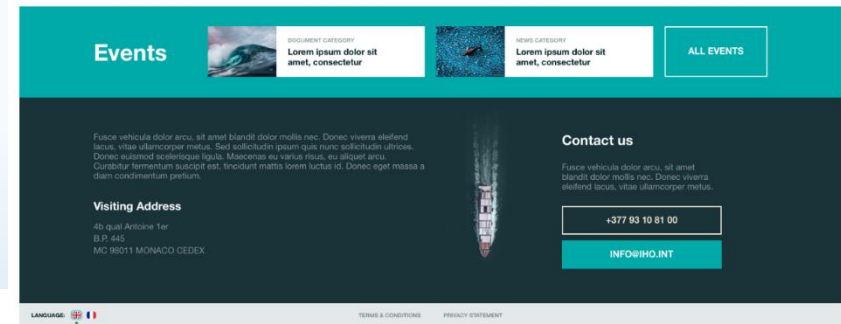
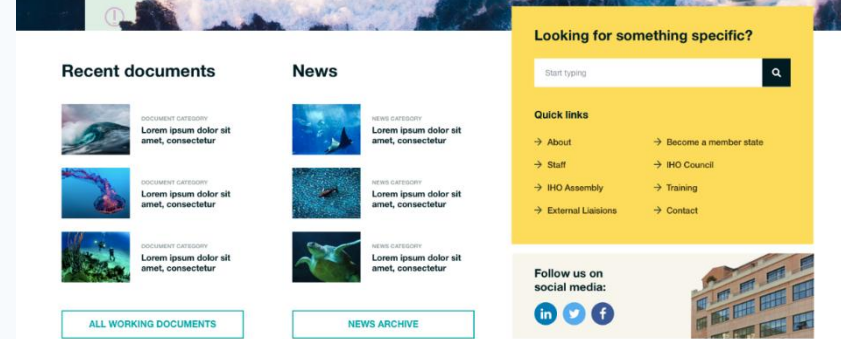
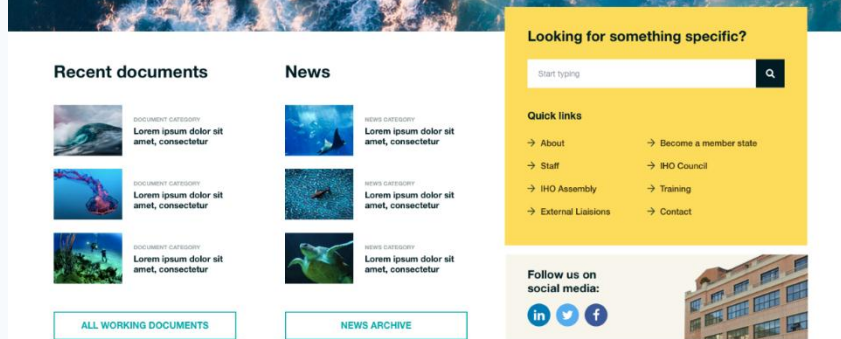
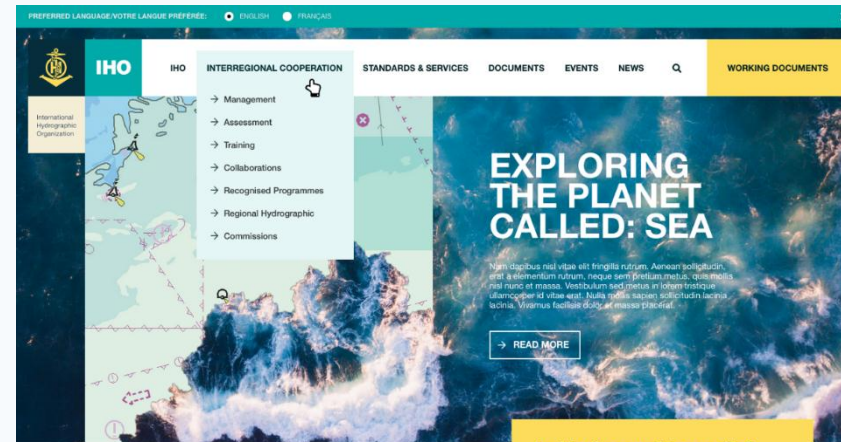
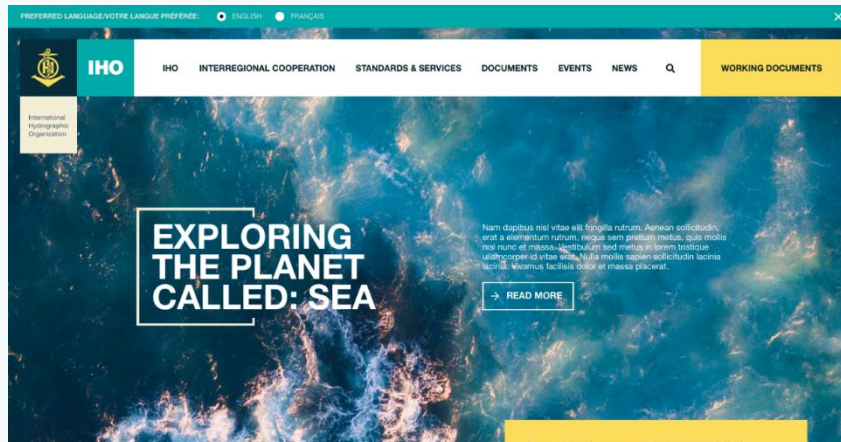
The screenshot shows the YouTube channel page for the International Hydrographic Organization (IHO). The channel has 42 subscribers and a banner image of a colorful bathymetric map. The navigation menu includes "HOME", "VIDEOS", "PLAYLISTS", "CHANNELS", "DISCUSSION", and "ABOUT". The "Uploads" section displays a list of recent videos, including "IHO centenary celebration 2019 - Brazil's contributions...", "IHO Interview with Alexandros Maratos, 2018", "IHO Interview with Dr. Peter Ehlers, 2018", and "IHO Interview with Giuseppe Angrisano, 2018". Each video thumbnail shows a person speaking and includes a duration and view count.



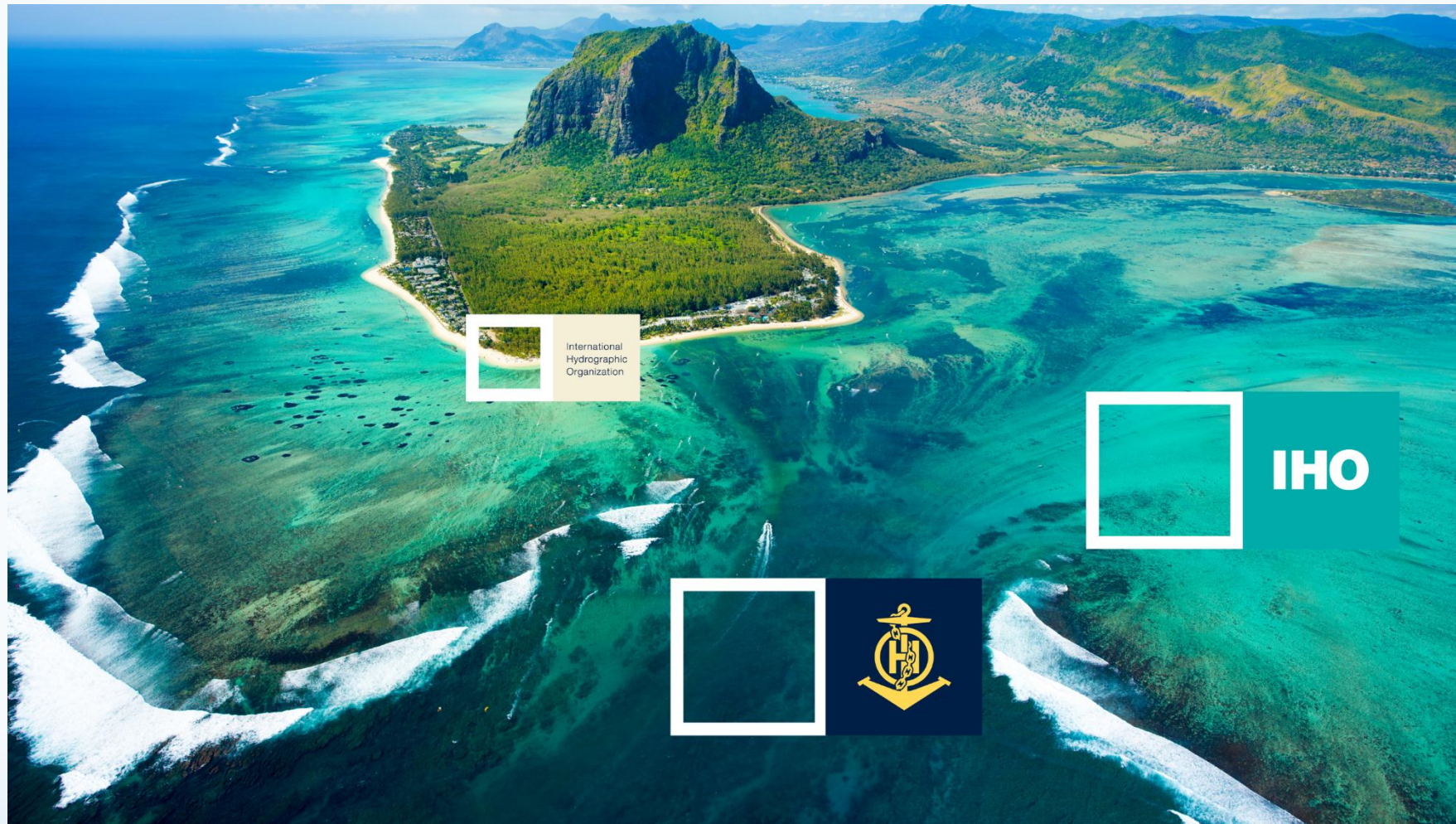
International Hydrographic Organization  
*Organisation Hydrographique Internationale*

6th Meeting of the East Asian Hydrographic Commission  
Steering Committee (EAHC SC)

# Secretariats operations / IHO website: new creative design homepage



# Secretariats operations / inspirations





# Secretariats operations / New emblem

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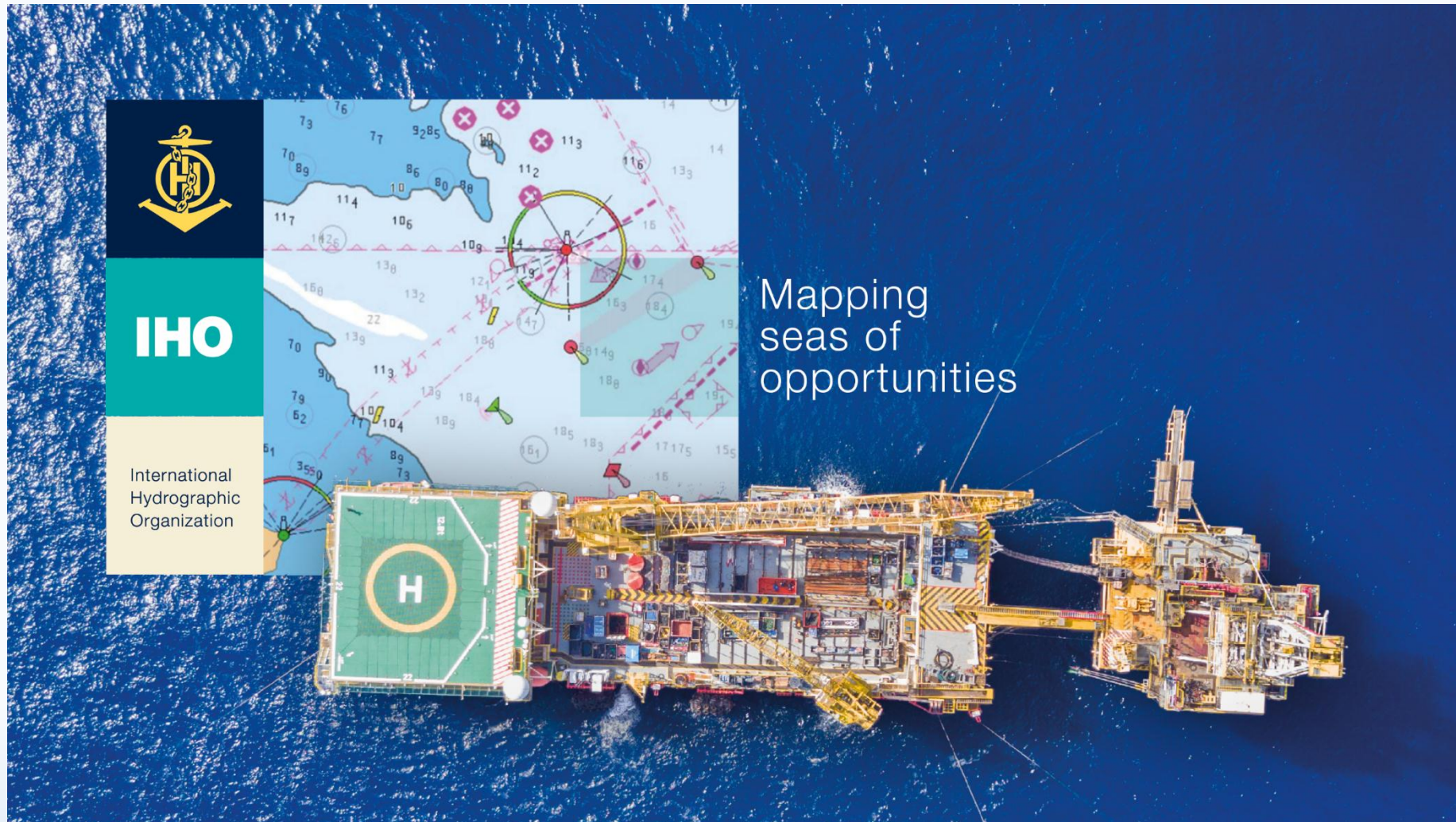
		
		



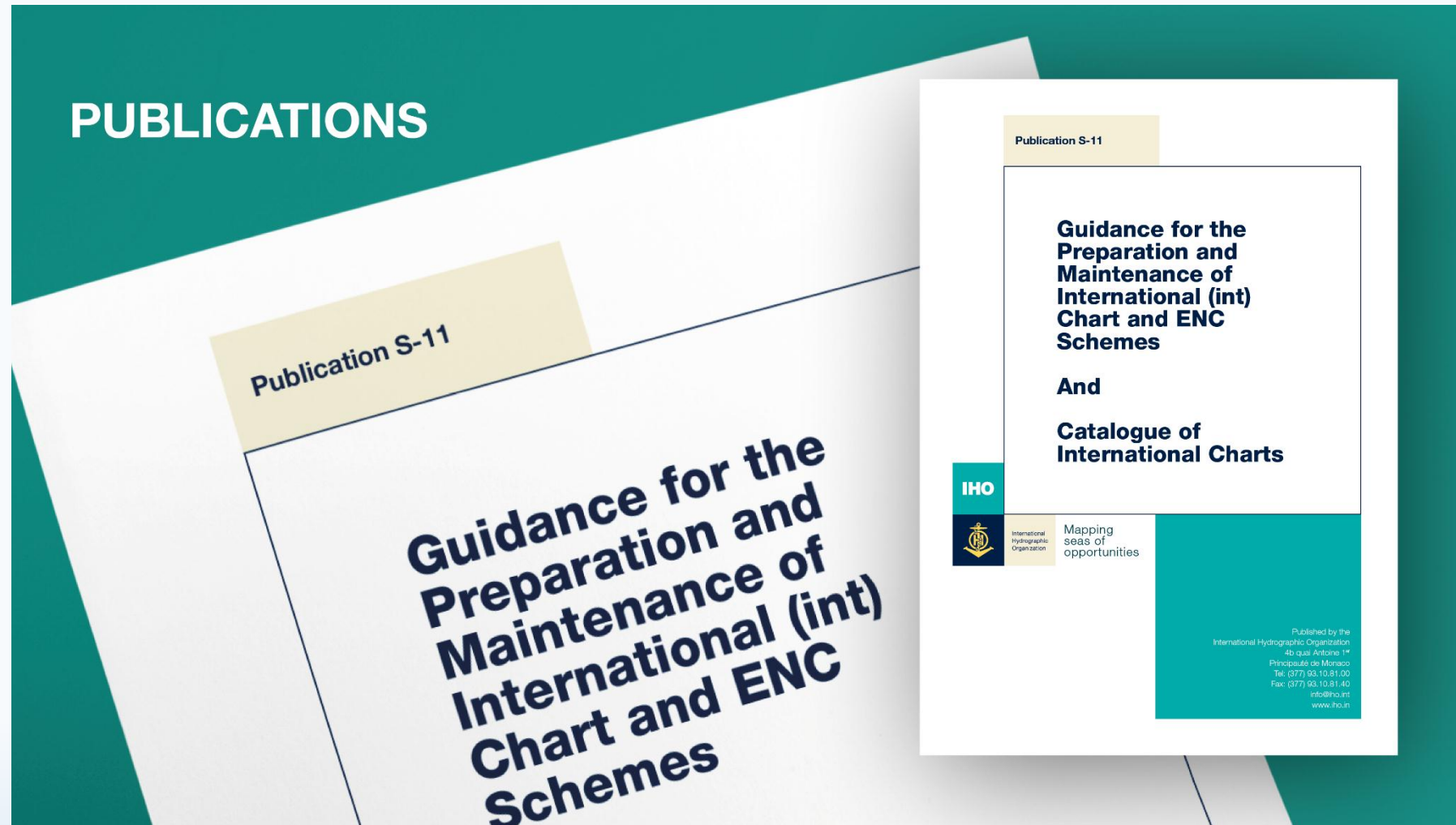
# Secretariats operations / new emblem variations (1)



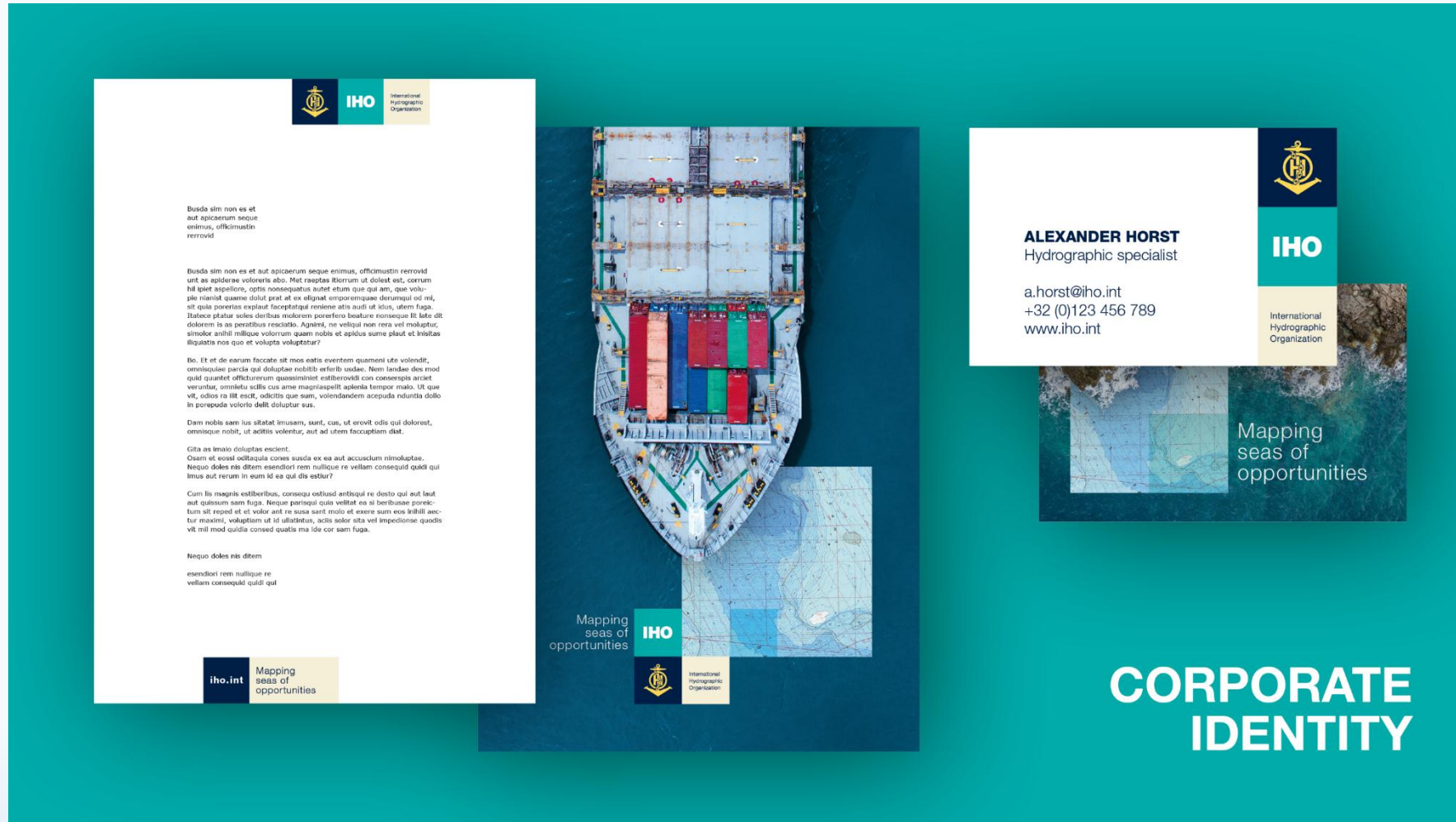
# Secretariats operations / new emblem variations (2)



# New corporate design: Publications

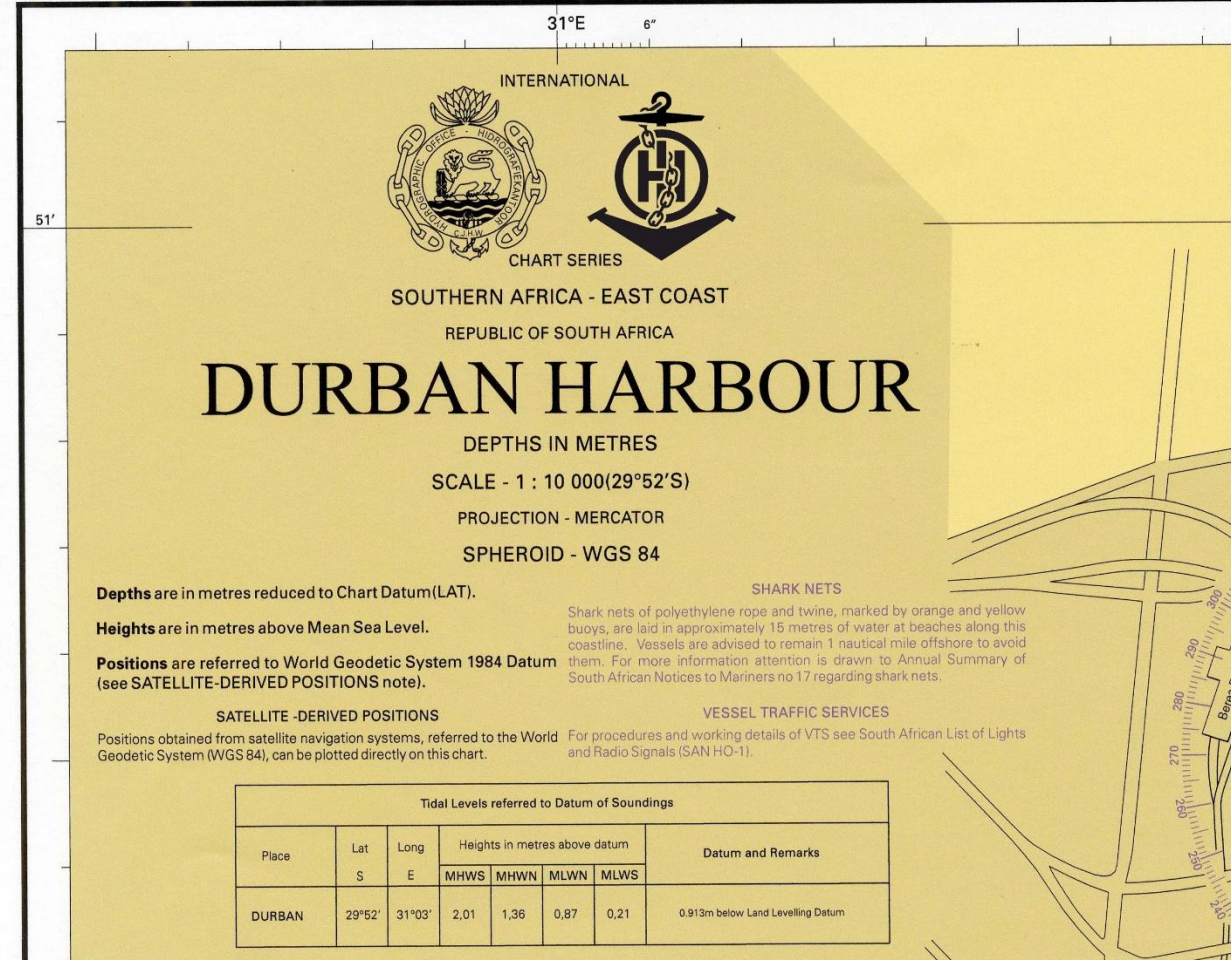


# Secretariats operations / New corporate design: Letters etc.



# Secretariats operations / New corporate design: INT Charts

1031 SAN 7562 INT



# Secretariats operations / IHO 100 years (1)

IHO Prestige book project: “100 years of international cooperation in hydrography”

Illustrate in an educational and entertaining manner the importance and variety of the activities, outputs and developments of the IHO and its effective role in supporting maritime activities: History, Present and Future!

Group of Co-Authors led by Editor in Chief: Gilles Bessero

- Chris Andreasen
- Mike Barritt
- Hans-Werner Schenke / Shin Tani
- Peter Ehlers
- Hugo Gorziglia
- Horst Hecht / Giuseppe Angrisano
- Mathias Jonas
- Alexandros Maratos
- Parry Oei
- Robert Ward
- Shepard Smith



# Secretariats operations / IHO 100 years (2)

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Monaco, April 2019:

- *Historic Nautical Charting and the Mediterranean* – Exhibition at Monaco Yacht Club

Monaco, 21st June 2019:

- Symposium “*Historical Approach for Measurements and Protection of Oceans and World Waters*” ” to be held at the Oceanographic Museum of Monaco

Monaco, April 2020:

- Second IHO Assembly:
  - Special session about the history of the Organization
  - New approach for the chart exhibition – science on a sphere





# Secretariats operations / IHO 100 years (3)

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Monaco, 21st June 2021:

- Peak event back to back with IRCC annual meeting:
  - “100 years of international cooperation in hydrography”
- Consider a submission to the UN General Assembly session of 2021:
  - Commitment of IHO to Sustainable Development Goals through improved provision of hydrographic knowledge (?)



# Hydrographic information driving marine knowledge

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EAHC is requested to take note of this report and take action as deemed appropriate.

Thank you for your audience and ongoing support of IHO.

A handwritten signature in blue ink that reads "Matthias Jonas". The signature is written in a cursive style with a checkmark-like flourish at the end.