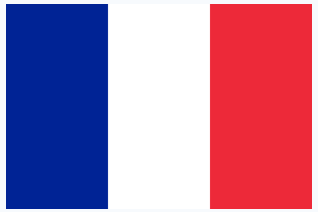


23rd Meeting of the North Indian Ocean Hydrographic Commission

National Report by France (Shom)

France (Shom) – Associate Member

Main achievements and next plans

- No survey carried out in the NIOHC Region since NIOHC-21
- Next surveys planned : not before 2025

Progress on charting – ENC

- Current status of French ENC production in Region J:

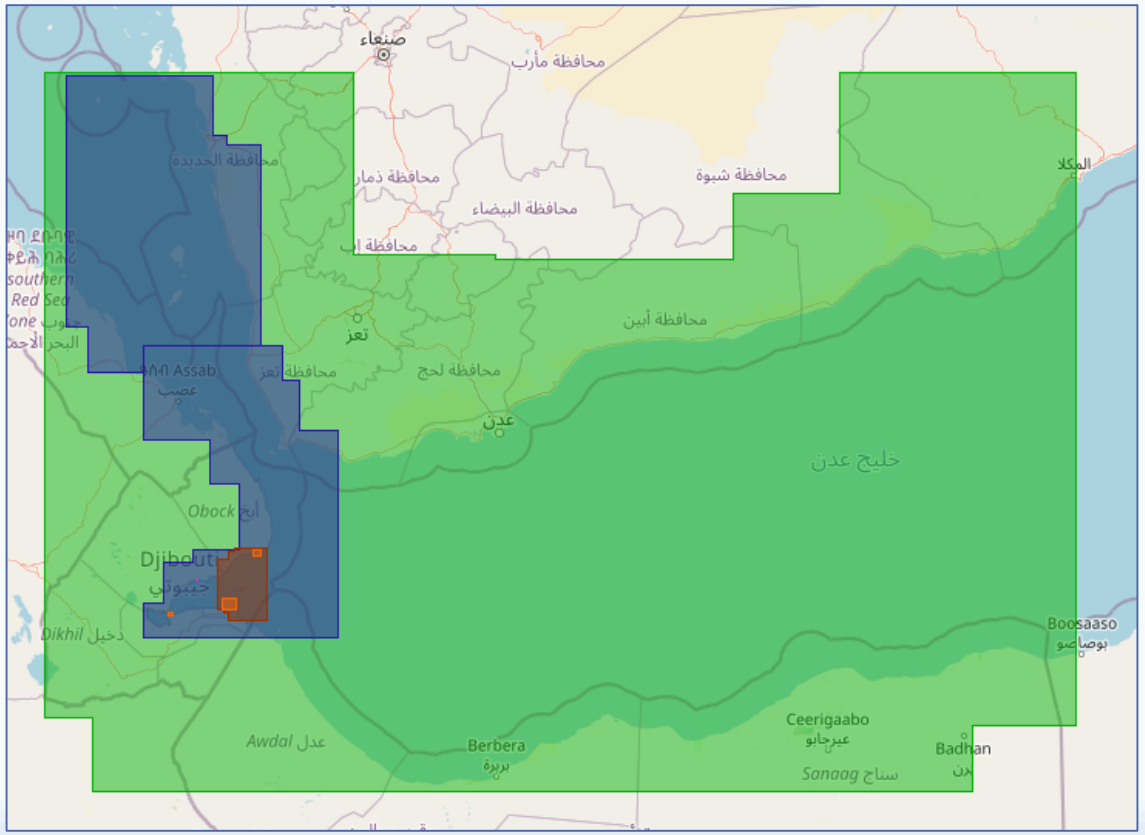
Usage Band	Produced Cells	Planned Cells	Percentage
1	0	0	N/A
2	1	1	100%
3	2	2	100%
4	1	2	50%
5	3	10	40%
6	1		
Total	**8**	**15**	**53%**

1 ENC produced since NIOHC-22 : *New Edition of FR67519A – Tadjoura anchorage*

6 ENC cells to be produced (2024 or later) in the region of Djibouti :
Western part of Gulf of Tadjoura, Entrance of Ghoubbet Cove, Ghoubbet Harbor, Bay of Doraleh and Khôr Ambâdo, Damerjog terminal and Tadjoura Harbor

Progress on charting – ENC

- Shom ENC coverage within the NIOHC Region :



Extract from the online PRIMAR catalogue (https://www.primar.org)

Progress on charting – INT Charts

- All INT charts under responsibility of Shom have been produced within the NIOHC Region:

Scale	Produced INT charts	Planned INT charts	Percentage
Small (<1/1 000 000)	0	0	N/A
Medium	3	3	100%
Large (>1/100 000)	2	2	100%
Total	5	5	100%

One INT chart produced since the last conference :

INT	Scale 1:	Title	Comment
7115	50 000	*Abords de Djibouti*	FR7547 – New Edition

Progress on charting – National Charts

- No national chart has been produced since the last conference, and 2 are planned for 2024-2025 designed to cover the western part of the Gulf of Tadjoura at scale 1: 50 000 :
    - FR7848 – Ouest du golfe de Tadjoura
    - FR7849 – Ports du golfe de Tadjoura

- These future charts have been submitted as new INT charts to the NIOHC ICCWG.

Unified Cartographic Source

- Review methodology (included automation) to produce French charts with a data-centric approach and the principle of “single charting scale per area”
- Homogenisation of chart scales by Usage Band and a review of all the French charts to eliminate discontinuities between products
- Production will start mid-2024 by France

C-55 latest update – Surveying and charting statutes

- Regarding Region J : FR PCA for Djibouti

A : adequately surveyed – B : re-survey required – C : never systematically surveyed

Survey Status Updated: December 2023		Depth < 200m			Depth > 200m		
		A	B	C	A	B	C
J	Djibouti	32.9 %	54.4 %	12.6 %	97.9 %	0.3%	1.8 %

Charting Status Updated: April 2024		Small (<1 M)			Medium (1M < *l* < 100 000)			Large (> 100 000)			Metric	WGS84
		A	B	C	A	B	C	A	B	C		
J	Djibouti	100	0	NA	100	0	100	81	0	50	100	100

C-55 values for survey status (top table) and charting status (down table). Updated values are highlighted in red

A : covered by INT or other paper charts – B : covered by RNC – C : covered by ENC

Capacity Building

FIG-OHI-ACI courses:

- category B for hydrographic surveyors (Shom / Brest)
- category B for nautical cartographers (Shom / Brest)
- category A course for hydrographic surveyors (ENSTA Bretagne / Brest)

One petty officer from Indonesia (PUSHIDROSAL) is currently completing the Shom Cat. B course in cartography in Brest (January. 2024 to August 2024).

Capacity Building

- **Project management assistance for the construction of hydro-oceanographic vessels**

Nigerian hydrographic ship Lana built by the French shipyard OCEA with the support of Shom (Source: OCEA)

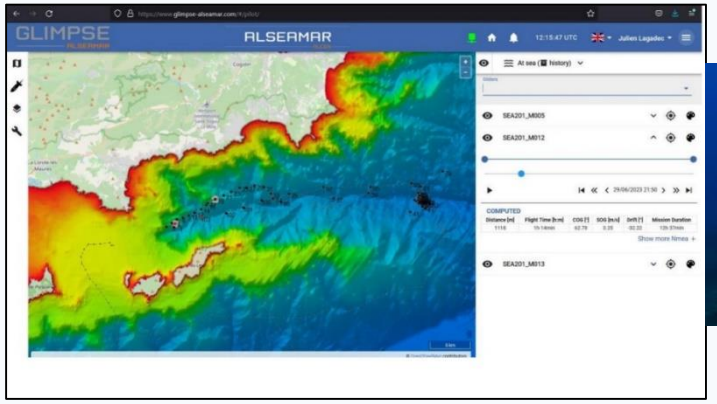
- **Studies to define**, on the basis of an expression of need, **the complete specifications in terms of hydro-oceanographic equipment**, as well as the fitting out of premises and scientific spaces of hydro-oceanographic ships
- **Equipment acceptance and integration**: supervision of equipment integration (mechanical, interfacing, metrology, etc.), acceptance tests in the factory, in port and at sea
- **Training and assistance**: training of personnel who will implement the equipment, but also of personnel who will maintain the systems, transfer of skills, handling of warranty calls after delivery of the vessel to the end customer

Recent assistance : Nigeria > following the delivery of the hydrographic vessel Lana in January 2021, secondment of a Shom's hydrographic engineer for 23 months to NNHO to train and support the survey team.

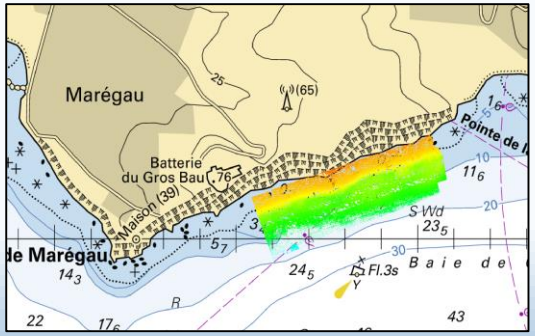
Future hydro-oceanographic capacities

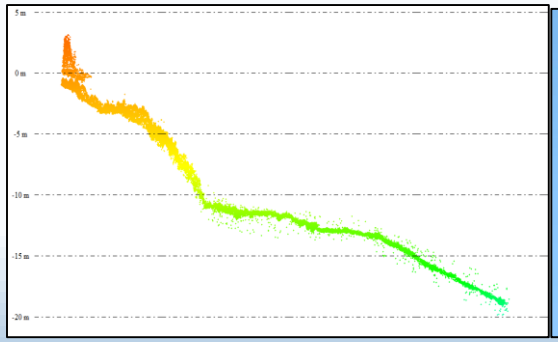
Latest experiments

- August 2023 – 2 gliders Sea Explorer (Alseamar)



- October 2023 – 1 USV DriX (eXail)

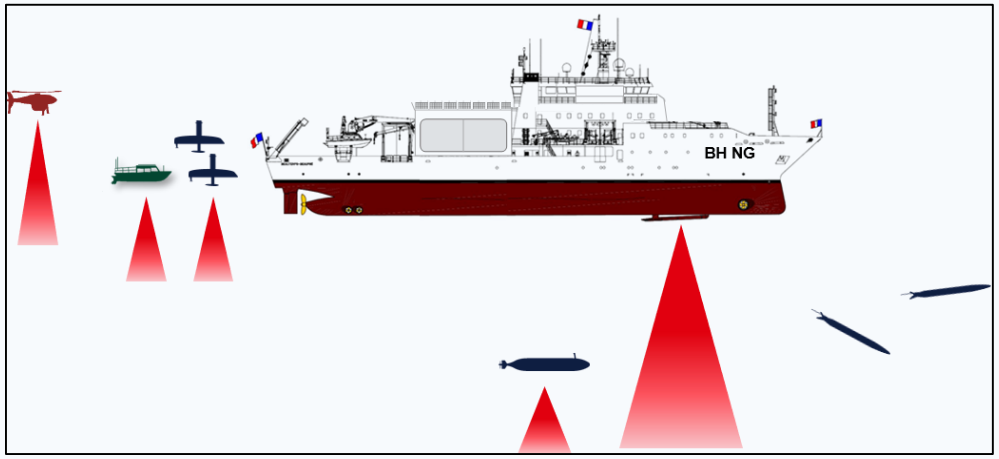




- Dec 2023 – 1UAV S100 (Schiebel) / Lidar VQ840G (Riegl)

Future hydro-oceanographic capacities

Sketch up of France's two future vessels



- **Ship Dimensions** (range)
  - Length: 90 metres
  - Gross tonnage: 3,000 tonnes
  - Average operating speed: 10 knots
  - Maximum crew : 80 (29 for specialists)
- **Full hydroacoustic suite**
  - MBES, SBP, SBES, ADCP, …
- **Scientific facilities**
  - Handling equipment
  - Laboratories (humid and air-conditionned)
- **Mobile vehicles**
  - 2 USV
  - 1 hydrographic survey launch
  - USV oceanic (not on board)
  - Gliders
  - 1 AUV 6000
  - 1 UAV

Marine Spatial Data Infrastructure (MSDI)

- **data.shom.fr and diffusion.shom.fr (latest evolutions)**
  - ❖ New ergonomics of Shom's online shop diffusion.shom.fr
  - ❖ Maritime areas – chart 8510CX (edition);
  - ❖ State action at sea – chart 8502 (edition);
  - ❖ Maritime Altimetric References (edition);
  - ❖ Global coastline (edition);
  - ❖ GEBCO worldwide bathymetric DTM (edition);
  - ❖ Tidal tables calculation (edition);
  - ❖ On demand tidal table calculation (update).

PING - National nautical information platform

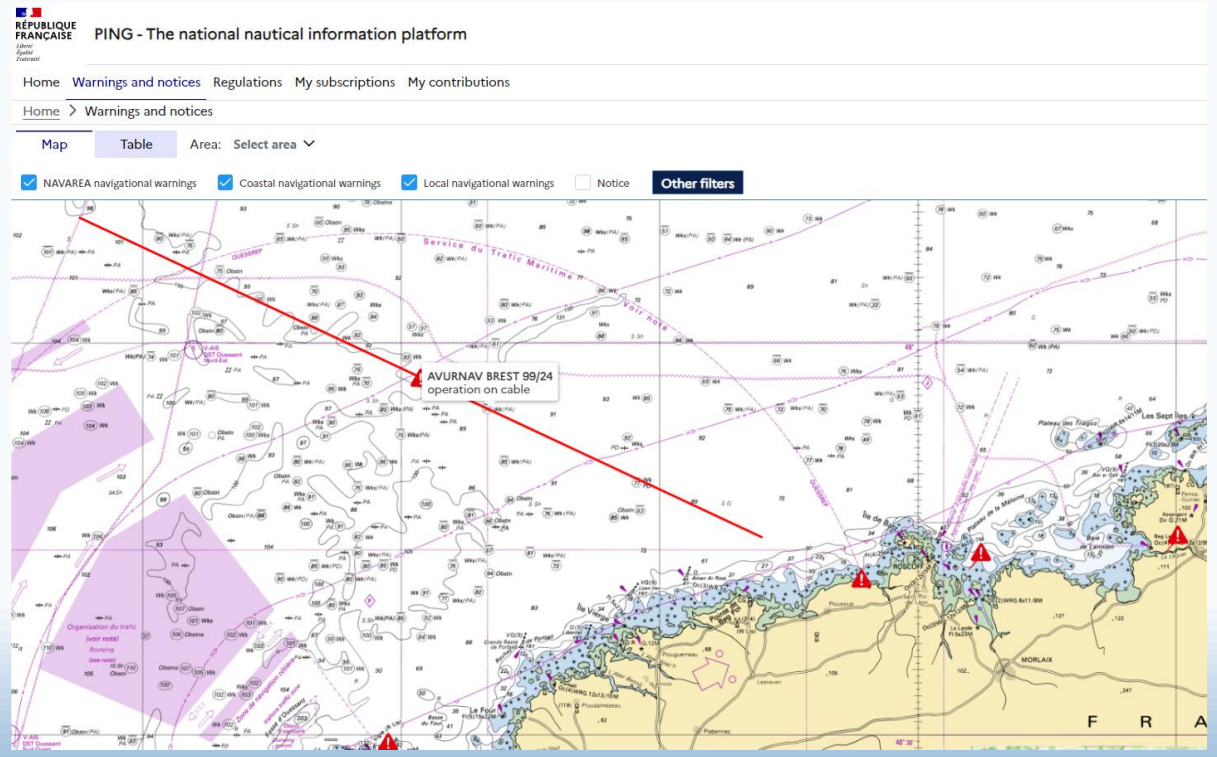
- **https://portail.ping-info-nautique.fr/ opened on April 10, 2024**

Shared information system for the transmission, formatting, digitization and posting of nautical information on the Internet

This platform is structured around 3 modules:

- ❖ production and diffusion of navigational warnings,
- ❖ transmission of source information by maritime services and users in order to contribute to nautical information,
- ❖ production and diffusion of maritime regulations in a spatialized form.

Next future: production and dissemination of navigational warnings in compliance with S-124 with compatibility with the current NAVTEX and EGC systems



Top Challenges and/or Obstructions

- **Crowsourced bathymetry – CSB**
  - 22 November 2022, Publication of an instruction of the French Prime Minister on crowsourced bathymetry
  - Data from crowdsourced bathymetry in French waters are transmitted as a priority to the Shom, or alternatively to one of the following trusted third parties :
    - the European Marine Observation and Data Network EMODnet, via its "Data Ingeneering" portal EMODnet, via its Data Ingestion Portal (https://submission.emodnetingestion.eu/);
    - the IHO Data Centre for Digital Bathymetry (DCDB - https://www.ngdc.noaa.gov/iho/).
  - CSB data : collected with **standard navigation instruments** (No MBES or other scientific equipment) during **routine manoeuvers**
  - CSB data in FR waters to be transmitted to Shom by the trusted nodes before dissemination. Only the validates data sets transmitted by Shom can be distributed through DCDB and EMODnet Bathymetry

Action requested from NIOHC23

- To take note of the French national report

Thank you for your attention