



Direction des missions institutionnelles et des relations internationales Division relations extérieures

> BREST on July 1st 2022 N° 022/Shom/DMI/REX/NP

NATIONAL REPORT

SUBJECT : France national report to the 21st Conference of the North Indian Ocean Hydrographic Commission (NIOHC).

APPENDIX : one appendix.

1. HYDROGRAPHIC OFFICE: GENERAL

Shom is pursuing the achievement of its different commitments based on the National Maritime & Littoral Strategy and the Strategic Review of Defence and National Security according to a 4-year target and performance contract between Shom and the French State. The current target and performance contract came into effect on January 1, 2021 for the period 2021-2024.

In addition to that, survey works are being conducted according to the prioritized 4-years survey plan for waterways under French jurisdiction.

Detailed information to update IHO Publication P-5 (Yearbook) has been submitted using the online system. This national report is submitted by RDML Laurent Kerléguer, French national hydrographer and Shom Director General (<u>laurent.kerleguer@shom.fr</u>).

2. SURVEYS

2.1. COVERAGE OF NEW SURVEYS

Since the previous NIOHC Conference (July 2021), Shom has not conducted any new survey in the area.

Survey campaigns are planned by Shom on a regular basis in Djibouti and within the Bab-el-Mandeb Strait to improve the navigational safety. Their achievement level depends on the authorizations received from the concerned Coastal States.

The next surveys in the region are now planned in 2023 on the occasion of the deployment of the BHO *Beautemps-Beaupré* in the Indian Ocean. Surveys will be carried out in particular in the waters of the Republic of

Djibouti for which France officially assumes SOLAS responsibility within the framework of an arrangement established between the 2 countries.

2.2. LIDAR SURVEYS

NTR.

2.3. NEW TECHNOLOGIES AND/OR EQUIPMENT

Shom's deployable hydrographic system (for rapid environmental assessment) has been upgraded with a very shallow multibeam echo-sounder (Norbit iWBMSh).



Fig. 1 – MBES Norbit iWBMSh integrated to Shom's deployable hydrographic system

See §10.1 for the preparation of future capacities.

2.4. NEW SHIPS

NTR.

2.5. CROWDSOURCED AND SATELLITE-DERIVED BATHYMETRY - NATIONAL POLICY

Crowdsourced bathymetry - CSB

Shom translated into French the IHO publication B-12 (Edition 2.0.3), Guide on participatory bathymetry. The document is available on <u>https://iho.int/uploads/user/pubs/bathy/B_12_Ed.2.0.3_2020-FR.pdf</u>. France is participating in the revision of the current document.

The French national policy for crowdsourced bathymetry is currently under review.

Satellite-derived bathymetry - SDB

The satellite-derived bathymetry (SDB) has been used since 1987 by Shom to complement traditional surveys (acoustic sounding surveys) to produce nautical charts in the Pacific region (available online)

https://services.data.shom.fr/geonetwork/srv/eng/catalog.search#/metadata/TRAITEMENT_IMAGE_SPATIOCA RTE_MARINE.xml).

Shom is currently conducting a research and development project in the field of SDB, Bathysat project, that will improve performance and quantify vertical uncertainties in accordance with the specifications of the new version of the S-44 (Edition 6.0.0). The results of the study should make it possible to use SDB with no need for calibration with field data.

The research part of the project has been completed last year. Results performed on different geographic areas (including an area in Pacific Ocean) have enabled to evaluate the capacity of the methods on the following objectives:

- the non-use of bathymetric measurements (to process pure remote SDB analysis);
- the accuracy of the solution faced with the seafloor complexity (reliability and limit of the parameterization of seafloor reflectance inside the model);
- the automatization and improvement of the calculation processes.

The development part will start in 2022.

2.6. CHALLENGES AND ACHIEVEMENTS

NTR.

3. NEW CHARTS & UPDATES

3.1. ENC COVERAGE, GAPS AND OVERLAPS

As of 1st May 2022, Shom has produced 803 ENCs, of which 8 ENCs within region J.

The full collection should eventually reach 900 ENCs.

In line with the WEND recommendations and guidelines, France produces its small scale ENC cells as closely as possible to INT chart schemes.

The current status of ENC production in the region J is detailed in the table below (*changes in red*):

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	7	57%		
6	1		5.70		
Total	8	12	67%		

The following figure is extracted from the online PRIMAR catalogue (<u>http://www.primar.org</u>) showing Shom ENC coverage within the NIOHC (region J) area:

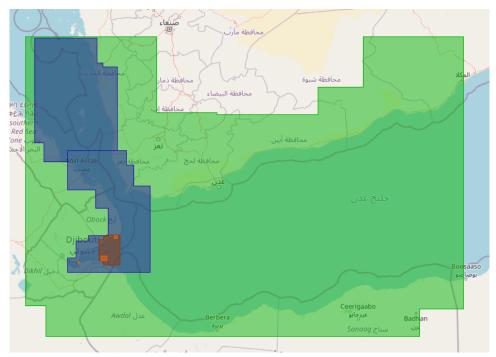


Fig. 2 – Region J - Shom's ENC production

ENC cells produced since the last conference are detailed hereafter:

Number	Scale 1 :	Title	Comment
FR475470	45 000	Abords de Djibouti	New Edition

ENC cells planned for 2024 or later are listed below:

Number	Title
FR478480	Ouest du golfe de Tadjoura
FR57848B	Entrée du Ghoubbet El Kharâb – Mouillage des Boutres (replaces FR57519B)
FR57848C	Port du Ghoubbet
FR57849A	Baie de Doraleh et de Khôr Ambâdo
FR57849B	Terminal de Damerjog
FR57849C	Port de Tadjoura (replaces FR67519A)

3.2. ENC DISTRIBUTION METHOD

All French ENCs (in S-63 encrypted format) are made available to distributors through the PRIMAR RENC. Shom participates, along with other hydrographic services, in the coordination work of the RENC (IC-ENC and PRIMAR).

France supports the work plan of the WEND working group to improve the implementation of the WEND principles.

3.3. RNC

NTR.

3.4. INT CHARTS

All INT charts under responsibility of Shom in the region J have been produced, as detailed in the following table:

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 has been produced since the last conference:

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

3.5. NATIONAL PAPER CHARTS

No national chart has been produced since the last conference, and none is planned for 2022-2023.

2 new charts are currently designed to cover the western part of the Gulf of Tadjoura at scale 1: 50 000 and should be produced from 2023:

- FR7848 Ouest du golfe de Tadjoura
- FR7849 Ports du golfe de Tadjoura

These future charts may be submitted later as new INT charts to the NIOHC ICCWG.

3.6. OTHER CHARTS, E.G. FOR PLEASURE CRAFT

Shom provides georeferenced marine charts in GeoTiff and S-57 format. These digital marine charts are available through Shom's online store <u>http://diffusion.shom.fr</u> under various licenses¹ according to the purpose of use. These data can be used with GIS or cartographic software for commercial or private purposes.

A S-57 license² allows unlimited download of updated versions for 12 months from the date of purchase.

3.7. CHALLENGES AND ACHIEVEMENTS NTR.

¹Internal reuse, commercial reuse, documentary use or end user.

² Each license allows internal reuse of the data for up to 5 workstations. For more information, contact <u>bps@shom.fr.</u>

4. NEW PUBLICATIONS & UPDATES

4.1. NEW PUBLICATIONS

NTR.

4.2. UPDATED PUBLICATIONS

Sailing directions, light and fog signal books and radio signal books are no longer published in print form. They are updated on a weekly basis and distributed via the online Shom distribution space (diffusion.shom.fr). Mariners who subscribe to these books are alerted of corrections by e-mail and by the Notice to Mariners (GAN).

4.3. MEANS OF DELIVERY

Nautical publications are available in digital format only (pdf files) on Shom's online shop (<u>http://diffusion.shom.fr</u>).

4.4. CHALLENGES AND ACHIEVEMENTS

NTR.

5. MSI

5.1. EXISTING INFRASTRUCTURE FOR MSI DISSEMINATION

Shom's notices to mariners (GAN) are exclusively available under digital formats on Shom website: <u>http://diffusion.shom.fr/gan</u>.

MSI Point of contact at Shom:

M. Philippe Pellae-Arthaud Head of Regional Team French Hydrographic Office 13, rue du Chatellier – CS 92803 - 29228 BREST CEDEX 2 – FRANCE Tel : + 33 (0) 256 31 21 90 Email: <u>na-om@shom.fr</u>

5.2. STATISTICS ON WORK OF THE NATIONAL COORDINATOR

See Appendix.

Shom plays a control and coordination role of local and coastal warnings issued by its national delegated coordinators (maritime zone commands mentioned in Appendix).

5.3. NEW INFRASTRUCTURE IN ACCORDANCE WITH GMDSS MASTER PLAN

There is no NAVTEX station cover for French overseas territories, MSI warnings are broadcast through SafetyNet network.

Hereafter are listed the coordinates of the French overseas territories POC for NAVAREA VIII:

AREA	COUNTRY	NAME	TELEPHONE	FACSIMILE	EMAIL
VIII	French Areas (La Reunion Island)	Commandant de Zone Maritime Sud Océan Indien	+262 (0)2 62 93 53 54		<u>emia-saint-denis.permanence-</u> ops.fct@intradef.gouv.fr

5.4. CHALLENGES AND ACHIEVEMENTS

NTR.

6. C-55 – LATEST UPDATES

The table with the latest information to update IHO Publication C-55 (Status of Hydrographic Surveying and Charting Worldwide) regarding region J area have been provided using the online system on 25 May 2022:

Su	rvey Status	[Depth < 200n	า	Depth > 200m				
Up	dated: December 2021	A B		С	Α	В	C		
J	Djibouti	23.3 %	53.4 %	23.3 %	93.6 %	0.4 %	6.0 %		

	arting Status dated: May 2022	Small (<1 M)			Medium (1M < / < 100 000)			Large (> 100 000)			Metric	WGS84
	Opualed. May 2022		В	С	Α	В	C	Α	В	С		
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

7. CAPACITY BUILDING

7.1. OFFER OF CAPACITY BUILDING

Shom school offers FIG-OHI-ACI (category B) courses in hydrography and marine cartography. These courses are given in French and are open to French-speaking foreign candidates (depending on available places). The training offer is presented on the Shom website:

https://www.shom.fr/sites/default/files/2020-10/Offre formation 2020-2021 Web.pdf

Some training modules are provided within the framework of the French-speaking hydrography association (AFHy: <u>http://www.afhy.fr/</u>) and are open to its members.

A training course in hydrography accredited in category A FIG-OHI-ACI is provided by ENSTA Bretagne (<u>https://www.ensta-bretagne.fr/index.php/option-hyo-hydrographie-et-oceanographie/</u>).



Fig. 3 – Courses and training provided at the Shom hydrographic school (source: shom.fr)

One petty officer from Indonesia (PUSHIDROSAL) is currently completing the Shom Cat. B course in hydrography in Brest (Sept. 2021 to July 2022).

7.2. TRAINING RECEIVED, NEEDED, OFFERED

NTR.

7.3. PROJECT MANAGEMENT ASSISTANCE FOR THE CONSTRUCTION OF HYDRO-OCEANOGRAPHIC VESSELS

Shom has a recognized know-how in the construction of hydro-oceanographic vessels (from 8m launches to 100m vessels). It masters the entire process from the expression of needs to the implementation of systems. It puts its expertise at the service of shipyards, within the framework of new constructions or modernizations for:

- Studies to define, on the basis of an expression of need, the complete specifications in terms of hydrooceanographic equipment (including computers), as well as the fitting out of premises and scientific spaces of hydro-oceanographic ships. Shom provides intellectual services such as the drafting of the metrological survey essential to the proper integration and control of the systems, the specification of the batches of spare parts adapted to the ship's missions, the interface plans, the acceptance book and the ship's logbook (in its field of competence).
- 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. A Shom hydrographic engineer is deployed to the Nigerian Naval Hydrographic Office for one year for the training on the new French-built hydrographic vessel Lana.



<u>Fig. 4</u> – Nigerian hydrographic ship Lana built by the French shipyard OCEA with the support of Shom (Source: OCEA)

7.4. STATUS OF NATIONAL, BILATERAL, MULTILATERAL OR REGIONAL DEVELOPMENT PROJECTS WITH HYDROGRAPHIC COMPONENT

See §11.9.

7.5. DEFINITION OF PROPOSALS AND REQUESTS TO THE IHO CBSC

NTR.

8. OCEANOGRAPHIC ACTIVITIES

8.1. GENERAL

NTR.

8.2. GEBCO/IBC'S ACTIVITIES

Data on transits in French and international waters were provided to IHO DCDB and for integration into the GEBCO grid in 2018.

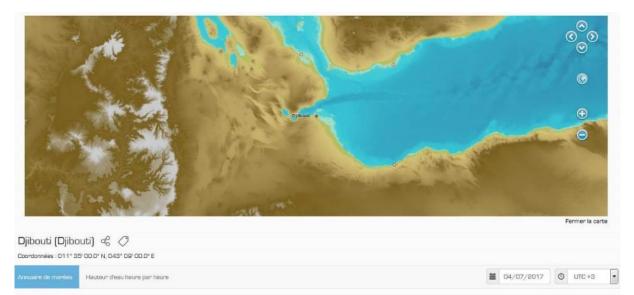
The survey coverage and associated metadata available on the IHO DCDB site are provided via the *EMODnet Bathymetry* portal supported by the European Union. The last update of all these bathymetric resources was performed in December 2020.

8.3. TIDE GAUGE NETWORK

Shom is the national coordinator and reference authority for the observation of the sea level, managing and issuing the resulting data. This mission is carried out under the REFMAR programme. All real time and processed tide gauge measurements collected under that programme are freely accessible on the web http://data.shom.fr/#donnees/refmar for all areas under French jurisdiction. Shom itself operates and maintains a large tidal network reporting in real time, RONIM, which is a major contribution to REFMAR.

This network is recognized as an important tool for coastal operational oceanography, risk assessment, studies on the evolution of the mean sea level, etc.

Shom's tidal predictions are available through a web/smartphone/tablet-friendly online service named maree.shom.fr. This service provides free access of one year of tidal predictions from over 1,000 harbours worldwide.



		Mar	di 4 juillet 20	17		Mercr	edi 5 juillet 2	017		Jeu	di 6 juillet 20	17		Vendr	edi 7 juillet 2	017	
		Heure	Hauteur	Coefficient													
0	PM	D6:37	1,97	-	PM	07:08	2.06	-	BM	00:27	0.96	-	BM	00:55	0.85	-	ø
0	BM	10:19	1.85		BM	11:13	1.88	-	PM	07:33	2.14	-	PM	07:57	2.21	-	0
	PM	16.23	2.41		PM	17:01	2.43	-	BM	11.56	1.87	-	BM	12.33	1.85	-	
	BM	23:57	1.07	2	-		12		PM	17:35	2.47		PM	18:10	2.52	-	

Fig. 5 – Tide predictions for Djibouti available through Shom's web portal (source: maree.shom.fr)

8.4. NEW EQUIPMENT

NTR.

8.5. CHALLENGES AND ACHIEVEMENTS

NTR.

9. SPATIAL DATA INFRASTRUCTURES

9.1. STATUS OF MSDI

Shom develops and maintains a MSDI covering all maritime areas under French jurisdiction. The information thus compiled is accessible through 3 portals:

- data.shom.fr
- diffusion.shom.fr
- maritimelimits.gouv.fr

9.2. RELATIONSHIP WITH THE NSDI

The various maritime geographical information produced by Shom are referenced on the French NSDI (<u>https://www.data.gouv.fr/</u>).

9.3. INVOLVEMENT IN REGIONAL OR GLOBAL MSDI EFFORTS

Shom contributes to the IHO MSDIWG.

9.4. NATIONAL IMPLEMENTATION OF THE SHARED DATA PRINCIPLES – INCLUDING ANY NATIONAL DATA POLICY AND IMPACT ON MARINE DATA

In accordance with France open data policy, Shom has opened access to its basic data: bathymetric data, wrecks, cables, seabed types, maritime limits & boundaries, toponymic databases, port information, and maritime regulations, etc. These data are distributed under a Creative Commons "CC-BY-SA 4.0" license or an open license, depending on the case.

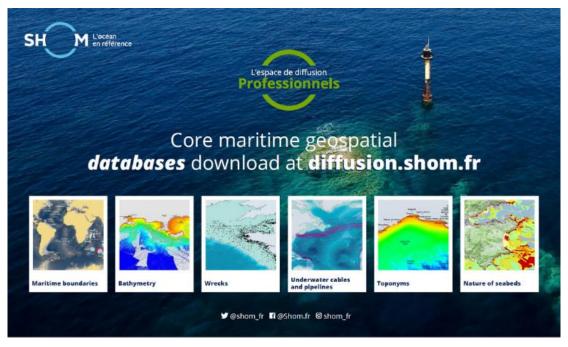


Fig. 6 – Access to Shom's open data (diffusion.shom.fr)

9.5. MSDI NATIONAL PORTALS

Data on data.shom.fr portal are organised according to the following topics:

- Master data: cartography, maritime boundaries, maritime and coastal database, coastal altimetry, bathymetry, vertical datums, sedimentology, geophysics, tides, currents and historical data;
- Oceanographic forecasts: waves, meteorology, water level, hourly surface hydrodynamic, daily mean 3D hydrodynamic and oceanogram;
- Coastal observations: sea level (REFMAR), sea surface current and sea bottom turbidity.

Not all this information is available on the NIOHC region.

Hereafter are listed some of the latest evolutions:

- Worldwide sediments map (edition);
- Bathymetric measurements (edition);
- New tools and services (<u>https://services.data.shom.fr/support/fr</u>);
- Redesigned drawing tool and new tools.

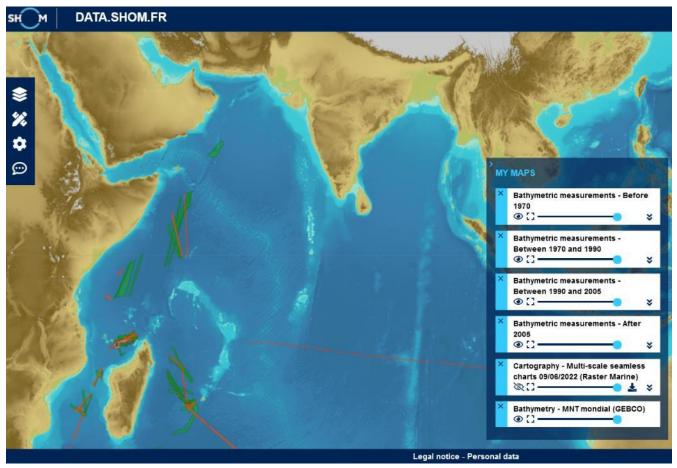


Fig. 7 – bathymetric measurements (data.shom.fr)

A detailed description of the portal functions and contents is available on Shom website (<u>https://services.data.shom.fr/support/fr</u>).

9.6. BEST PRACTICES AND LESSONS LEARNED

Between July 2019 and June 2020, a UX designer from the "designers of general interest" (DIG) program supported by the French interdepartmental digital direction (DINUM) was tasked with improving the user experience of dissemination portals including data.shom.fr. Based on feedback from portal users, a new portal ergonomics with, in particular, a more prominent cartography and a redesigned drawing tool has been defined. This new portal was opened in June 2021.

Among the new features of this new version of data.shom.fr:

• A more fluid interface with repositionable windows;

- A more user-friendly drawing tool;
- A redesigned catalogue of available layers;
- New measurement tools: surface calculation and azimuth distance;
- A complete version in English.

9.7. CHALLENGES AND ACHIEVEMENTS

NTR.

10. INNOVATION

10.1. USE OF NEW TECHNOLOGIES

As part of the preparation phase for the replacement of the hydro-oceanographic fleet (CHOF project), an agreement was signed with the procurement agency of the French DoD (DGA) for a period of three years in order to conduct experiments and modernise hydrographic data processing techniques.

A first experiment was carried out in September 2020 with 2 Unmanned Surface Vehicles DriX from iXblue; many other experiments were carried out in 2021: in January with Autonomous Underwater Vehicle Gavia from Teledyne; in May and June with USV Inspector and AUV A18D from ECA; in August with 2 gliders Sea Explorer from Alseamar and a last one in October with deep sea AUV HUGIN Superior from Kongsberg Maritimes. Other experiments are planned in 2022 and in the coming years. Beyond the evaluation of the hydrographic performance of these new platforms, these experiments should make it possible to adapt the organisation and processes in order to get the best out of these new technologies.



Fig. 8 – Experiment of USV DriX deployed from BHO Beautemps-Beaupré (Source: iXblue, 2020)



<u>Fig. 9</u> – Experiment of AUV HUGIN deployed from BHO Beautemps-Beaupré (Source: Marine nationale, 2021)

10.2. RISK ASSESMENT

Shom completed in 2020 the development of an experimental tool called "Deseasion platform". It is a multicriteria decision tool for hydrographic risk assessment and cost-benefit analysis. It will be used in the coming years to improve the national hydrographic survey program.

10.3. POLICY MATTERS

NTR.

11. OTHER ACTIVITIES

11.1. PARTICIPATION OF IHO MEETINGS

Due to its overseas territories and primary charting responsibilities, France, represented by Shom, is a member or associate member in 9 regional hydrographic commissions.

Name	Chair / Vice chair	Member	Observations
CBSC		\checkmark	Capacity Building Sub-Committee
NCWG		\checkmark	Nautical Cartography Working Group
ENCWG		\checkmark	ENC Standards Maintenance Working Group
DPSWG		\checkmark	Data Protection Scheme Working Group
DQWG		\checkmark	Data Quality Working Group -Last meeting in 1996
EAtHC	✓	\checkmark	Eastern Atlantic Hydrographic Commission
FC		\checkmark	Vice-chairman of Finance Committee
GEBCO		\checkmark	Joint IOC-IHO Guiding Committee for the General Bathymetric Chart of Oceans (GEBCO)
HCA		\checkmark	Hydrographic Commission on Antarctica
HDWG	\checkmark	\checkmark	Hydrographic Dictionary Working Group
HSSC	\checkmark	\checkmark	Hydrographic Services and Standards Committee
IENWG	\checkmark	\checkmark	IHO-European Union Working group
IRCC		\checkmark	Inter-Regional Coordination Committee
MACHC		\checkmark	MESO American & Caribbean Sea Hydrographic Commission
MBSHC		\checkmark	Mediterranean and Black Seas Hydrographic Commission
MSDIWG		\checkmark	Marine Spatial Data Infrastructure Working Group
NIOHC		\checkmark	North Indian Ocean Hydrographic Commission
NIPWG		\checkmark	Nautical Information Provision Working Group
NSHC		\checkmark	North Sea Hydrographic Commission
RSAHC		\checkmark	ROPME Hydrographic Commission
S100WG		\checkmark	S-100 Working Group
SAIHC		\checkmark	Southern Africa and Islands Hydrographic Commission
HSWG		\checkmark	Hydrographic Surveys Working Group
SWPHC		\checkmark	South-West Pacific Hydrographic Commission

TWCWG	\checkmark	Tidal, Water Level and Currents Working Group
WEND	✓	Wold-Wide Electronic Navigational Chart Database
WWNWS	✓	World-wide Navigational Warning Service Sub-Committee

11.2. METEOROLOGICAL DATA COLLECTION

NTR.

11.3. GEOSPATIAL STUDIES

NTR.

11.4. PREPARATION FOR RESPONSES TO DISASTERS

France may have Navy ships in the NIOHC region ready to provide support in case of an emergency. France also provides technical support and has a rapid response capacity for environmental data in case of a disaster.

The point of contact at Shom in case of a marine disaster is the head of the maritime safety information division. This division can be reached 24/7 by fax +33 298 221 665 or email <u>coord.navarea2@shom.fr</u>.

• Tsunami alert

NTR.

• Coastal flooding

NTR.

• Oil spills

Shom is an active member of the inter-agency drifting committee which is activated by the maritime authorities every time there is an oil spill. The POLMAR safety plan for the sea was signed on 23rd November 2004 and aims at enabling France to face in a reactive manor a potential wide spread of marine pollution, by ensuring the efficient coordination of national operations and support from public services.

11.5.	ENVIRONMENTAL PROTECTION
±±.5.	

NTR.

11.6. ENGAGEMENT WITH THE MARITIME ADMINISTRATION

NTR.

11.7. AIDS TO NAVIGATION MATTERS

NTR.

11.8. MAGNETIC AND GRAVITY SURVEYS

NTR.

11.9. INTERNATIONAL ENGAGEMENTS

For the countries benefiting from Shom support to meet their hydrographic services obligations spelled out by the SOLAS convention, France fosters a mechanism of gradual transfer of responsibilities through State-to-State administrative arrangements. This mechanism relies on training at Shom facilities and the formalization of the respective responsibilities for maritime safety information, hydrographic and charting activities.

Within the NIOHC area, a bilateral arrangement of this kind is concluded between France and the Republic of Djibouti.

An arrangement for the exchange and reproduction of nautical products, in accordance with IHO Resolution 7/1919 as amended (former A3.4) has been concluded with the National Hydrographic Office of India (INHO). The last revision was signed in June 2021.

12. CONCLUSIONS

Shom supports any initiative aimed at improving hydrographic knowledge and navigation safety, insofar as the data collected benefit the cartographic authorities and the updating of the nautical documentation of this region.

APPENDIX I TO THE NOTE N° 022/SHOM/DMI/REX/NP DATED JULY 1ST 2022

NATIONAL MSI SELF-ASSESSMENT

Country: FRANCE Organization: Shom

1 MARITIME AREA

[Describe maritime area including details of the geographic boundaries] The maritime area includes coastal waters (up to 250 NM) of La Reunion Island.

2 OPERATIONAL POINTS OF CONTACT FOR THE NATIONAL COORDINATOR

INSTITUTION	TELEPHONE	FACSIMILE	EMAIL
Shom, overseas office of the "Information and Nautical publication" department of the "Maritime Products and services" division	+33 2 56 312 190 +33 2 56 312 439 +33 2 56 312 273	/	<u>na-om@shom.fr</u>

3 GMDSS MASTER PLAN

[Report on the status of the GMDSS Master Plan: Is it up to date? When was the last update?]

The French GMDSS Master Plan is compiled in the Shom publication "Maritime radiocommunications" reference n°924-RNC available on-line : <u>https://diffusion.shom.fr/pro/rsx-92-4-radiocommunications-maritimes-systeme-mondial-de-detresse-et-de-securite-en-mer-smdsm.html</u>

The publication is regularly updated (last version June 15th 2022).

[Specifics of equipment used and software version with date up-dated]

Equipment Type for Ports and Local Area	Software Version	Date of Up-date
No NAVTEX station in French ovserseas territoritories within the MACHC region. Coastal warnings broadcasted through SAFETYNET	NTR	NTR
Terrestrial rediocommunications HF, MF and VHF means	NTR	NTR

[Detail the number of warnings identified as immediate priority (requiring transmission within 30 minutes) and the average elapsed time for passing to NAVAREA coordinator, as reported to the last RHC meeting]:

Year Y-2		Year Y-1		Year Y	
Total	Average elapsed time	Total	Average elapsed time	Total	Average elapsed time
NTR	NTR	NTR	NTR	NTR	NTR

NAVTEX COVERAGE: 4

[Diagram of NAVTEX stations and service areas within maritime area; Contact details for NAVTEX Stations; Confirm operational status has been validated.]

Not applicable.

Coastal warnings broadcasted by SafetyNET in French overseas territories.

5 **OPERATIONAL ISSUES:**

[New infrastructure in accordance with GMDSS Master Plan; Problems encountered?] NTR.

6 CONTINGENCY PLANNING

[Provide information regarding contingency plans that have been established and future plans where appropriate. Also report on any testing of the plan that has been conducted]

The mutual support process between NAVAREA II and VIII coordinators was successfully tested in June 2018.

7 **CAPACITY BUILDING**

[Demands for Capacity Building, Training requested or received, any offered, status of national, bilateral, *multilateral or regional development projects with MSI component*]

Not applicable.

8 **OTHER ACTIVITIES**

[Participation in other IHO or IMO Working Groups, Regional Hydrographic Commissions, regional conferences related to MSI over past year]

Shom participates to IHO and IMO Working Groups, Regional Hydrographic Commissions and the regional conferences related to MSI over past year (SMAN12, NCSR7, DRWG19).

9 NATIONAL MARITIME WEBSITE

[(Address, statistics (if permitted by national legislation; how often is the information on your web site updated? Do you display the date and time of the last update on your web site?]

AREA	COUNTRY	NAME	TELEPHONE	FACSIMILE
	French Areas /III (La Reunion, Island)	maion	+262 (0)2 62 93 53 54	
		EMAIL	emia-saint-denis.perman ops.fct@intradef.gouv.fr	ence-

French overseas territories POC for NAVAREA VIII:

RECOMMENDATIONS 10

[If any]

11 SUMMARY

[Please provide a short summary of this paper which will be included in the final report of the meeting.] Shom, as French national MSI coordinator, do not transmit MSI within the NIOHC region. Shom controls and coordinates the warnings issued by its national delegated coordinators.

DESTINATAIRES :

- NIOHC CHAIR (PUSHIDROSAL INDONESIA)
- IHO SECRETARIAT

COPIES INTERIEURES :

- DG
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