

Direction des missions institutionnelles et des
relations internationales
Division Relations extérieures

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**FRENCH NATIONAL REPORT
TO THE 7TH MEETING OF THE ROPME HYDROGRAPHIC COMMISSION
(RSAHC)**

1. Hydrographic Service : General

Following up its targets and performance contract for the 2013-2016 period, Shom is pursuing the achievement of its different commitments based on the National Maritime Strategy and the Defence Policy according to a new 4 years target and performance contract covering the 2017-2020 period, which has recently been approved by Shom's board. Survey works are being conducted according to the prioritized 4-years survey plan for all the waters under French jurisdiction. In that scope, a new national survey programme, covering the 2017-2020 period, has also received the approval of Shom's board prior to its forthcoming signature by M. Jean-Yves Le Drian, French Ministry of Defense.

2. Surveys

2.1. Coverage of new surveys

Since the last RSAHC conference, Shom has not conducted any surveys in the region. A deployment of the French Hydrographic Ship *Beautemps-Beaupré* in the Indian Ocean is scheduled for 2017, including a 3 months period of work within the ROPME region.

2.2. New technologies and /or equipment

NTR.

2.3. New ships

NTR.

2.4. Problems encountered

NTR.

3. New charts & updates

Shom does not produce neither paper charts nor ENC's in the ROPME area.

4. New publications & updates

4.1. New Publications

NTR.

4.2. Updated publications

NTR.

4.3. Means of delivery

Since the end of 2016, all nautical publications have been available in digital format (pdf files) on Shom's online shop (diffusion.shom.fr). Most publications are still available on paper, but from now on, new editions of nearly all publications will be only digital.

4.4. Problems encountered

NTR.

5. MSI Existing infrastructure for transmission

Since January 1st 2014, Shom's notices to mariners (GAN) are exclusively available under digital formats, either downloadable on shom.fr or by annual subscription (CD-rom).

5.1. New infrastructure in accordance with GMDSS Master Plan

NTR.

5.2. Problems encountered

NTR.

6. C-55 Latest update

The latest overall C-55 update has been transmitted to the IHB on August 28th 2015.

7. Capacity Building Offer of and/or demand for Capacity Building

7.1. Training received, needed, offered

8.3. New equipment

Since May 2016, Shom's tidal predictions are available through a new 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.

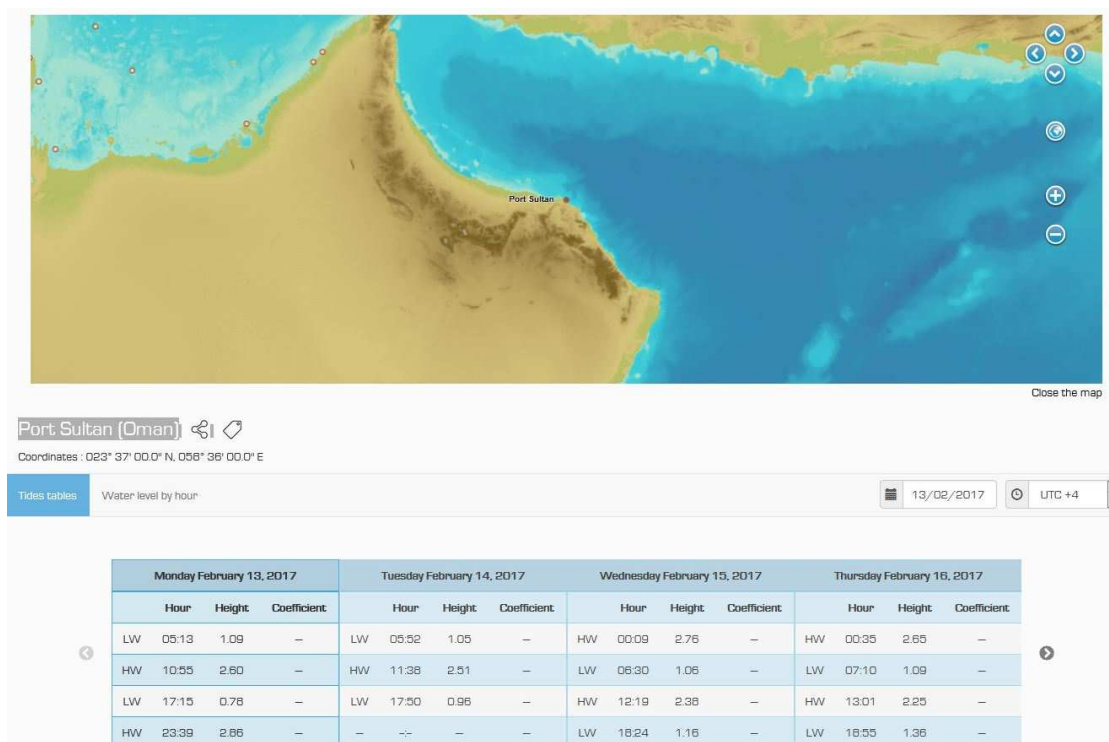


Fig.2: Tide predictions for Oman's Port Sultan available through Shom's web portal (source: maree.shom.fr)

8.4. Problems encountered

NTR.

9. Other activities

9.1. Meteorological data collection

NTR.

9.2. Geospatial studies

NTR.

9.3. Disaster prevention

- **Tsunami :**

Shom is maintaining a large real time tide gauge network RONIM, an important tool for coastal operational oceanography, risk assessment, studies on the evolution of the mean sea level, etc. Having tide gauges in Europe and in the French overseas territories, Shom is contributing to Tsunami warning in Pacific Ocean, Indian Ocean, Caribbean Sea and Mediterranean Sea.

France may also have Navy ships deployed in the ROPME region, ready to provide support in case of an emergency. France also provides technical support and has a rapid response survey capacity in case of a disaster.

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

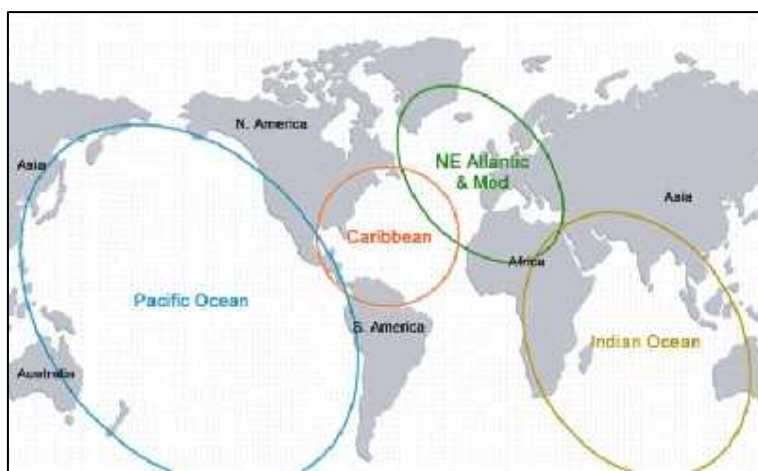


Fig.3: Cooperation areas on tsunami warning system (source COI ; UNESCO).

- **Coastal flooding :**

Shom is associated with *Météo-France* in the provision of an alert system against coastal flooding named *Vigilance Vagues Submersion (VVS)*. This allows for a better anticipation of this destructive phenomenon and protection of the populations living in the littoral area of Metropolitan France. An extension of that alert system towards French overseas departments is currently under work.

Shom provides the tidal predictions, expertise and models in coastal hydrodynamics and real time tide gauge observations as well as information relative to extreme sea levels and bathymetry. *Météo-France's* marine forecasters examine and compile the data and produce a map depicting the level of coastal flooding threat together with the risk of tall waves for each French metropolitan department.

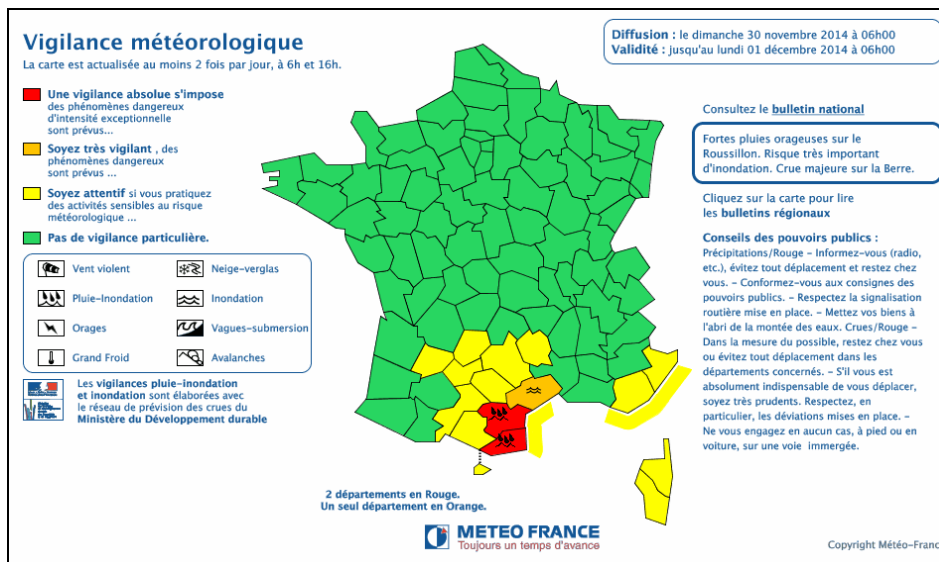


Fig.4: An example of coastal flooding alert (yellow level).
 Costs subject to alert are underlined according to the alert level (source www.meteo.fr).

Besides, the HOMONIM Project in partnership between Shom and Météo-France, launched in 2011 aims at improving the VVS alert system through 3 axis:

- Extension of real time sea level observation capability,
- Production of a first range of multi-scale bathymetric digital terrain models, crucial to improve coastal hydrodynamics modeling,
- Improvement of wave and surge modeling with the implementation of new modeling chain based on HYCOM and WAVEWATCH III models.

After a first phase (2011-2015) focused on France mainland coasts, a second phase of that project was initiated at the end of 2015, to end in 2019. One of its main axis consists of completing and improving storm surge forecast capabilities on overseas territories, precisely French Antilles, French Guyana and French overseas Territories of the SouthWest Indian Ocean. This phase includes specific the development of surge and waves modeling configurations on those territories.

- **Oil spills:**

Shom is an active member of the inter-agency drifting committee which is activated by the maritime prefecture whenever an oil spill occurs. 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 marine pollution, by ensuring the efficient coordination of national operations and support from public services.

9.4. Environmental protection

NTR.

9.5. Astronomical observations

NTR.

9.6. Magnetic/Gravity surveys

NTR.

9.7. MSDI Progress

Since the launch of Shom's maritime and coastal geographic information portal data.shom.fr, further developments have been implemented with new online services data layers on a regular basis. Hereafter are listed some of the latest evolutions:

- The portal is now displayed in Google Mercator (EPSG:3857).
- Drawing tools have been directly added to the main portal <http://data.shom.fr/#dessin>. Users can now create objects, save their map and print them, export and import them in KML format.
- A nautical info feedback service has also been integrated to the portal <http://data.shom.fr/#infonaut/>
- The metadata catalog is based on the Geonetwork solution that offers a user-friendly interface to read ISO 19115/19139 XMLs.
- Layers can be interrogated to retrieve attributes of objects.
- New high (10-20m) and medium (100m) resolution DTM Layers (open data).
- Wind forecasts (direction and speed) from *Météo France's* ARPEGE meteorological model ARPEGE are now available with Shom's ocean modeling forecasts.

Every evolution regarding the portal is usually posted on Shom's Twitter accounts (@shom_en and twitter_fr)

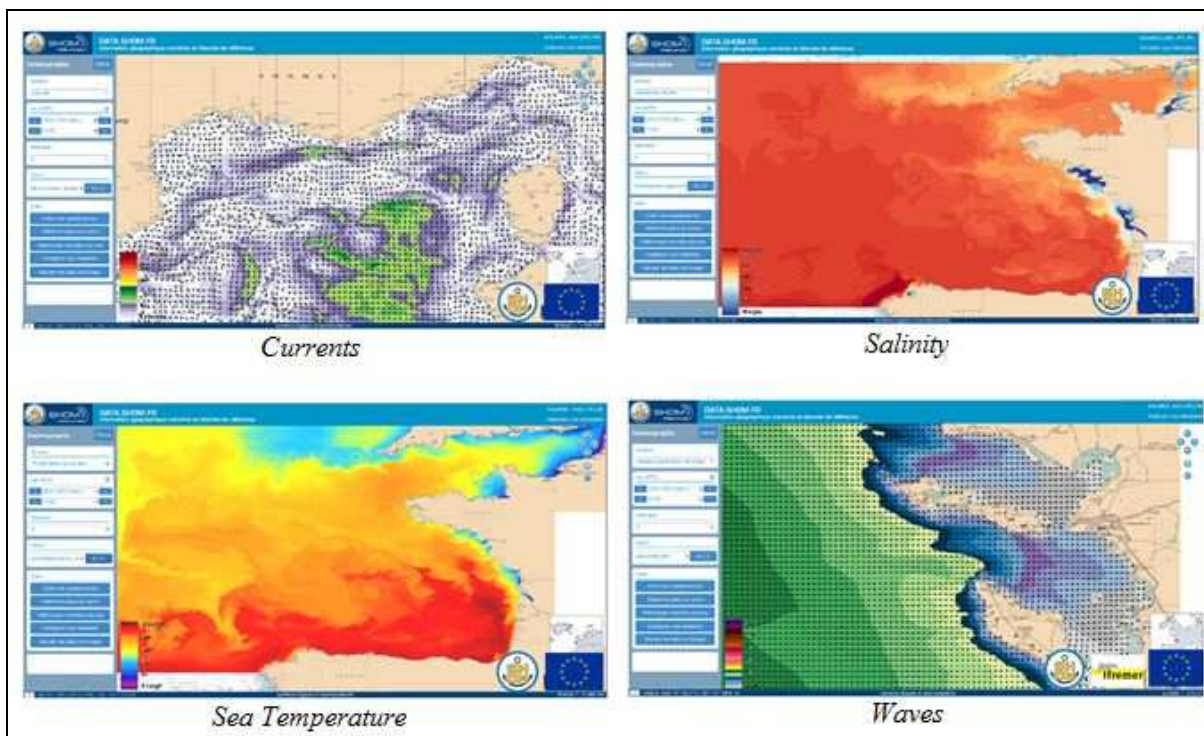


Fig.5:

Oceanographic forecasts on Shom's data portal (data.shom.fr)

A detailed description of the portal functions and contents is available on Shom website (<http://www.shom.fr/les-services-en-ligne/portail-datashomfr/>). Data available on that portal are organised according to the following topics listed below: *tides, tidal currents, bathymetry, cartography, maritime and littoral databases.*

9.8. International

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

The detail of Shom's involvement in other IHO activities is listed in the table hereafter:

Name	Chair / Vice chair	Member	Observations
CBSC		✓	Capacity Building Sub-Committee
NCWG		✓	Nautical Cartography Working Group (former CPSCWG)
ENCWG		✓	ENC Working Group (former TSMADWG/DIPWG)
DPSWG		✓	Data Protection Scheme Working Group
DQWG		✓	Data Quality Working Group -Last meeting in 1996
EAtHC		✓	Eastern Atlantic Hydrographic Commission
FC		✓	Vice-chairman of Finance Committee
GEBSCO		✓	Joint IOC-IHO Guiding Committee for the General Bathymetric Chart of Oceans (GEBSCO)
HCA		✓	Hydrographic Commission on Antarctica
HDWG	✓	✓	Hydrographic Dictionary Working Group
HSSC		✓	Hydrographic Services and Standards Committee, formerly known as the Committee on Hydrographic Requirements for Information Systems (CHRIS)
IENWG	✓	✓	IHO-European Union Working group
IRCC		✓	Inter Regional Coordination Committee
MACHC		✓	MESO American & Caribbean Sea Hydrographic Commission
MBSHC	✓	✓	Mediterranean and Black Seas Hydrographic Commission
MSDIWG		✓	Marine Spatial Data Infrastructure Working Group
NIOHC		✓	North Indian Ocean Hydrographic Commission
NIPWG		✓	Nautical Information Provision Working Group (former SNPWG)
NSHC		✓	North Sea Hydrographic Commission
RSAHC		✓	ROPME Hydrographic Commission
S-100WG		✓	S-100 Working Group (former TSMADWG/DIPWG)
SAIHC		✓	Southern Africa and Islands Hydrographic Commission
SWPHC		✓	South-West Pacific Hydrographic Commission
TWCWG	✓	✓	Tidal, Water Level and Currents Working Group (former TWLWG/SCWG)
WEND		✓	World-Wide Electronic Navigational Chart Database
WWNWS	✓	✓	World-wide Navigational Warning Service Sub-Committee, formerly known as the Promulgation of Radio Navigational Warnings Sub-Committee (PRNW)

10. Conclusions

Shom supports any initiatives aiming at improving the maritime knowledge and the navigation safety, as far as the data collected benefits the charting authorities and the update of nautical documentation of that region.

Destinataire : OHI

Copies intérieures : DG - DMI/REX - Archives (DMIDSD/2.035)
