

Paris, November 15th 2012

N° SHOM/DMI/REX/NP

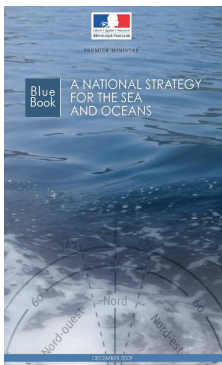
SERVICE HYDROGRAPHIQUE
ET OcéANOGRAPHIQUE
DE LA MARINE

DIRECTION DES MISSIONS
INSTITUTIONNELLES ET DES
RELATIONS INTERNATIONALES

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FRENCH NATIONAL REPORT TO THE 13TH MEETING OF THE MESO AMERICAN AND CARIBBEAN SEA HYDROGRAPHIC COMMISSION MEETING

1. Hydrographic Service: General



In 2009, the President of the French Republic introduced the foundations of a new national maritime integrated policy which was followed soon after by the adoption of *a national strategy for the sea and the oceans*¹ by the Interministerial Committee of the Sea.

Since those commitments have already been integrated in SHOM's actual strategy, this year, the speed has been set within SHOM in order to fulfil greater achievements through its next targets and performance contract for 2013 – 2016.

No efforts will be spared to meet the various requirements of this contract, while improving the visibility of SHOM's capacities and strengthening our partnerships, especially in this era of comprehensive public policy reviews and financial crisis.



SHOM contributes actively to this momentum without neglecting its three core missions: the national hydrographic service, the environmental support to defence and the support to maritime and coastal public policies.

2. Surveys

2.1. Coverage of new surveys

Since the last MACHC conference, surveys around Clipperton Island have been achieved in February-March 2012, as illustrated below:

¹<http://www.sgmer.gouv.fr/>

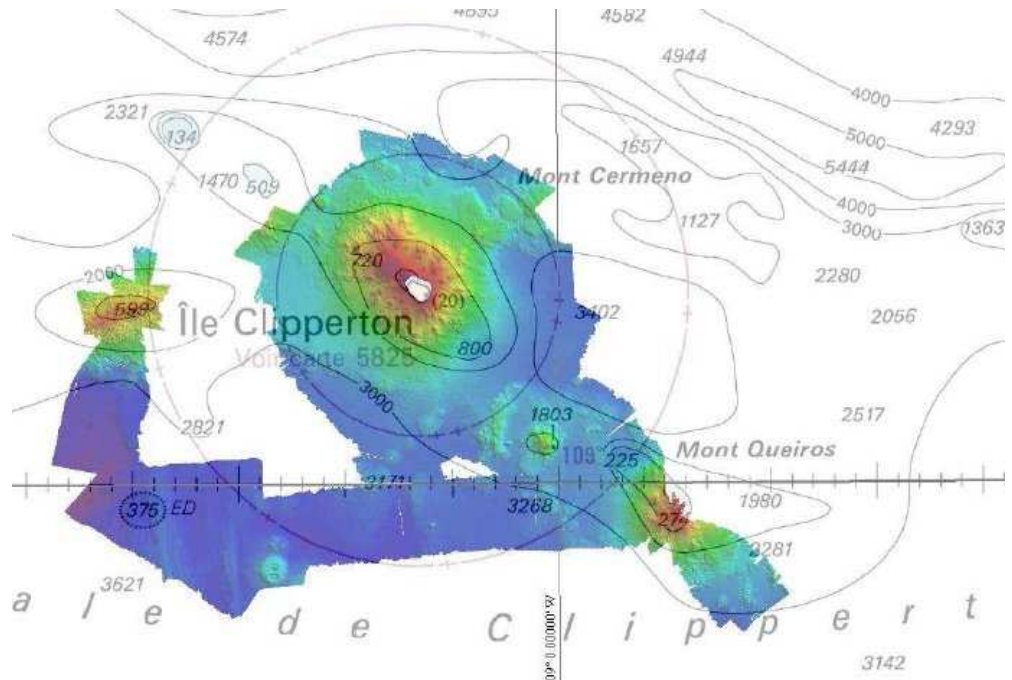


Fig.1: Soundings coverage around Clipperton Island from 2012 survey.

Besides, a deployment of a survey ship in the region is being planned for the second semester of 2013.

2.2. LIDAR surveys

The French National Geographic Institute (IGN) and SHOM were tasked by the Prime Minister to join efforts to produce a seamless, precise topographic and bathymetric model, of the entire French coast.

The LittO₃D[®] project was then created to meet more than hundred requirements expressed by coastal managers concerned with the protection and exploitation of the littoral, and by users of geo-referenced data.

This project is now exporting itself to realise surveys around the world. Since the last conference, surveys and data processing have been achieved both in La Martinique and La Guadeloupe. The Maritime side of the survey has been delivered to the partners in January 2012. La Guadeloupe data are being merged and controlled with land survey data processed by IGN.



Fig.2: Lidar survey data in La Martinique

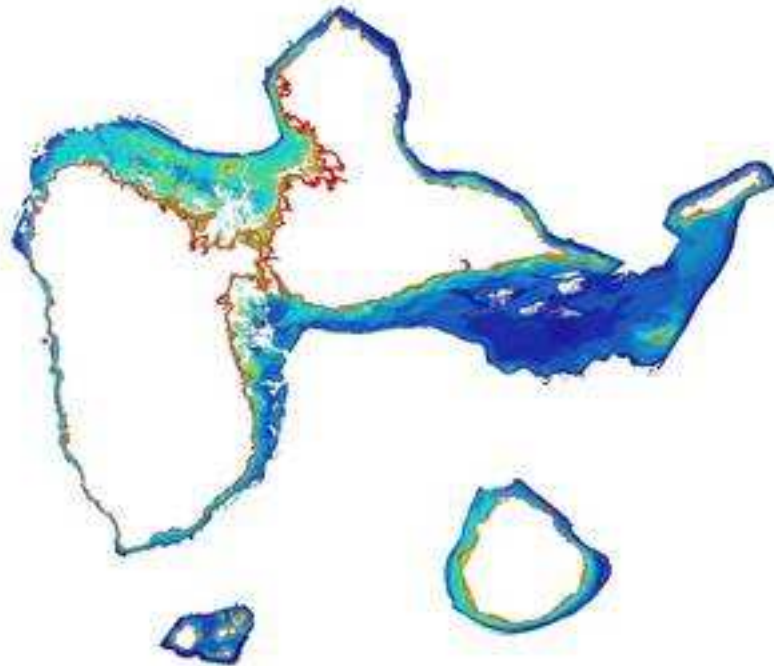


Fig.3: Lidar survey data in La Guadeloupe

2.3. New technologies and /or equipment

NTR.

2.4. New ships

NTR.

2.5. Problems encountered

NTR.

3. New charts & updates

3.1. ENC's

SHOM's collection of ENC's has now reached the number of 367. The full collection should eventually reach a figure around 900 ENC's.

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

No ENC were produced in the region since the last MACHC conference.

Here are the ENC's planned for 2013:

Number	Scale 1:	Title	Comment
FR374840	300 000	De Paramaribo aux Iles du Salut	French cell cut to clip with the new expected cell SR302014.
FR277510	1 570 000	Ile Clipperton	By the end of 2012.

The status of ENC production in the area is:

Usage Band	Produced Cells	Planned Cells	%
1	0	0	N/A
2	2	3	66%
3	4	4	100%
4	8	11	73%
5	9	33	33%
6	2		
Total	25	51	49%

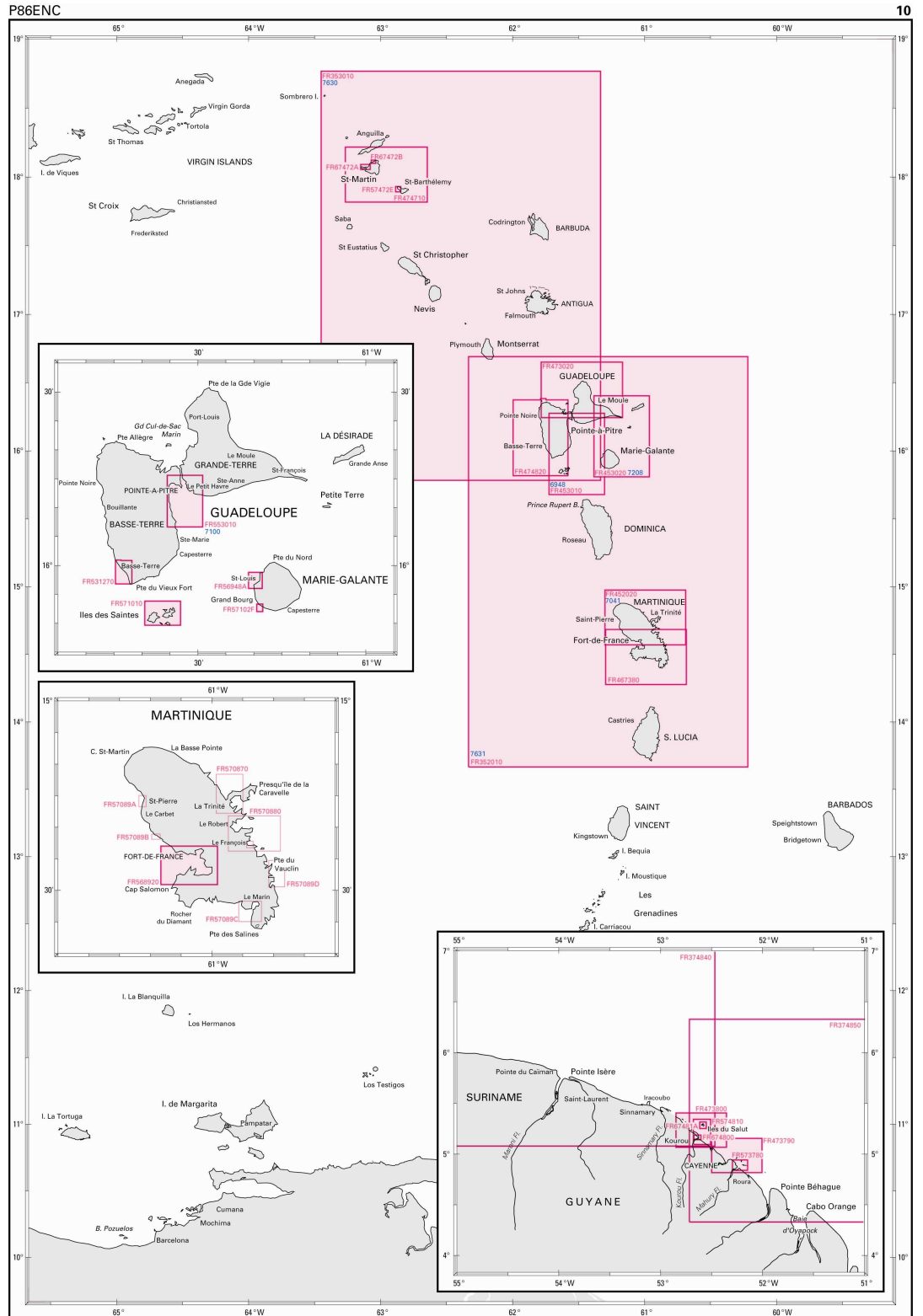


Fig.4: ENC coverage within MACHC area: existing ENCs are represented in dark pink, planned ENCs for 2015-2019 are in light pink.

3.2. ENC Distribution method

All French ENCs are distributed to End User Service Providers through PRIMAR RENC. France is providing its support to develop a RENC-to-RENC cooperation concept, within the WEND-WG, following the tasks carried out by the IC-ENC-PRIMAR Cooperation Committee.

3.3. RNCs

NTR.

3.4. INT charts

See next section for details.

Here the overall planification of SHOM for INT chart production:

Scale	Produced INT charts	Planned INT charts	%
Small (<1/1 000 000)	0	0	N/A
Medium	5	5	100%
Large (>1/100 000)	National charts already produced	4 (not included in the INT scheme yet)	N/A
Total	5	5 (9 tbc)	100%

3.5. National paper charts

Here are the charts produced since the last MACHC conference:

National	INT	Scale 1 :	Title
7751	/	1 570 000	Île Clipperton – EEZ (nouvelle carte)

The following charts are planned in 2013:

National	INT	Scale 1:	Title
7378	/	15 000	Accès au Dégrad des Cannes (new edition)

3.6. Other charts, e.g. for pleasure craft

NTR.

3.7. Problems encountered

As many other IHO member states, France is responsible for collecting nautical information and surveying areas that would otherwise remain uncharted. It happens from time to time that SHOM only learns by accident of surveys performed by private companies, or even other hydrographic offices, in its areas of charting responsibility, and has to insist to obtain communication of IHO-compliant data relevant to INT charts and nautical information.

In the interest of the international maritime community, it is reminded that survey results should be automatically communicated to the IHO recognised and primary charting authority (in accordance with M-3 resolution 1/2006 and S-4 resolution A-402.1 and B-635.4).

In addition, provision should be made in all contracts awarded to private survey companies to the effect that hydrographic data pertinent to the safety of navigation be communicated to the IHO recognised charting authority.

4. New publications & updates

4.1. New Publications

Since the last conference, the following publications have been issued:

Type	Title
DIV	Tide table 2011 – Vol 2 – Overseas ports
DIV	Tide table 2012 – Vol 2 – Overseas ports
RSX	92.1 Maritime radiocommunications: Europe – Groenland - Mediterrean (2012)
RSX	92.2 Maritime radiocommunications: Africa – Asia - Australasia (2011)
RSX	92.3 Maritime radiocommunications: America and Antarctica (2012)
RSX	92.4 Worldwide Navigation Warning Service (2011)
RSX	93 Pilot and traffic services (2010) (<i>see nota</i>)
RSX	96.2 Radio meteorological stations : SW Pacific – Americas - Antarctic (2011)
LL	LD Saint Pierre et Miquelon – Petites Antilles - Guyane

RSX: Radio stations; L: List of Lights; DIV: Miscellaneous

4.2. Means of delivery

NTR.

4.3. Problems encountered

Several cases of nautical information within French water areas have been issued by some Hydrographic Offices without informing SHOM first. Some of them even turned to be false.

It is reminded that urgent safety-related nautical information must be transmitted to the NAVAREA co-ordinator in the first place, then, if appropriate, to the primary charting authority of the area.

5. MSI Existing infrastructure for transmission

NTR.

5.1. New infrastructure in accordance with GMDSS Master Plan

NTR.

5.2. Problems encountered

NTR.

6. C-55 Latest update

The last update of C-55 database for French areas of responsibilities provided by SHOM is dated May 21st, 2010.

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

7.1. Training received, needed, offered

NTR.

7.2. Status of national, bilateral, multilateral or regional development projects with hydrographic component

SHOM is participating in the deployment of instruments for the benefit of the future Caribbean Tsunami Warning Centre through the INTERREG IV programme. It is financed by the European FEDER budget and SHOM is associated with the *Institut Physique du Globe* of Paris (IPGP), Martinique's general council, *Météo-France* and the Seismic Research Centre of the University of West Indies (see paragraph 9.3).

Observations network improved in 2011-2012 in region of Antilles. To receive tide gauges measurements in real time, satellite beacons have been installed in 2012 on the existing SHOM tide gauges at *Fort-de-France (Martinique)*, *Pointe-à-Pitre (Guadeloupe)* (see section 8.3).

In the framework of INTERREG IV Caraïbes, a FEDER convention has been settled between IPGP and Observatoire volcanologique et sismologique de Martinique (Convention FEDER 2007-2013). SHOM is a partner of TSUAREG project with regional partners (TSUnami Alerte REGIONal, also : Mise en place de la partie montante de l'alerte aux tsunamis dans l'arc antillais). Tsuaregs' partners : l'Observatoire Volcanologique et Sismologique de Martinique, l'Observatoire Volcanologique et Sismologique de Guadeloupe de l'Institut de Physique du Globe de Paris (OVSM/IPGP et OVSG/IPGP), le Seismic Research Centre de l'University of the West Indies (SRC/UWI).

7.3. Definition of bids to IHOCBC

NTR.

8. Oceanographic activities

8.1. GEBCO/IBC's activities

NTR.

8.2. Tide gauge network

SHOM is the French national coordinator and reference authority in the field relating to the observation of the sea level and the management and issue of the resulting data.

These missions are carried out under the REFMAR program. Real time and processed tide gauge measurements are now accessible on web <http://refmar.shom.fr/home/> in overseas areas under French jurisdiction:



Fig.5: SHOM REFMAR tide gauges network.

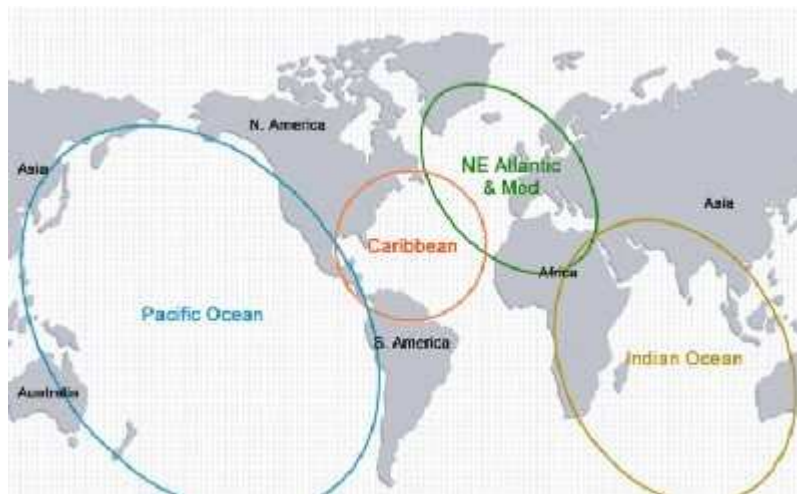


Fig.6: Cooperation areas on tsunami warning system (source COI ; UNESCO).

More information about SHOM’s involvement can be found through the following link:

http://refmar.shom.fr/fr/sea_level_news_2012/t2/coordonner-l-alerte-aux-tsunamis-dans-les-petites-antilles-source-deal-guadeloupe



SHOM edition of the tidal prediction software SHOMAR (for 150 metropolitan France harbours and more than 1 000 overseas and foreign harbours). Each SHOMAR edition is usable for 2 years. The current version 2012 January 1st, is valuable up to 2013 December, 31st. SHOMAR exploitation system is efficient on Windows® NT, 2000, XP et Vista.

8.3. New equipment

In the framework of INTERREG IV (see section 7.2), three observation structures have been installed, following the program planned in 2010. Thus at Pointe-à-Pitre (Antilles), real time transmission data are operational since May, 2012. This system is composed of one data acquisition Mareta NG platform, an Optiflex tide gauge and a connexion to satellite since May 2012. At Fort-de-France, satellite transmission system has been installed in December 2011 and update in May 2012. Initially, Salut islands (Guyane) installation was also planned for 2012. This installation is scheduled for 2013, during the first trimester. At Saint Pierre et Miquelon (2012), a tide gauge infrastructure has been installed and is operational since July 2012.

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 contributes to the launching of the national tsunami warning centre for the Caribbean. The importance of the expansion of the real-time SHOM tide gauge network named RONIM is recognised as a key component for the development of a national tsunami warning system.

SHOM currently acts as the French national coordinator of sea level measurements, due to its national responsibility to conduct surveys, to maintain RONIM and to make and distribute the official tidal predictions.

France may have Navy ships in the MACHC 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 disaster is Cdr Bertrand Menanteau. His division can be reached 24/7 by fax +33 298 221 665 or email coord.navarea2@shom.fr

- **Coastal flooding :**

NTR.

- **Oil spills:**

NTR.

9.4. Environmental protection

NTR.

9.5. Astronomical observations

NTR.

9.6. Magnetic/Gravity surveys

NTR.

9.7. MSDI Progress

SHOM INFRAGEOS-H® project aims at procuring an interoperable database management system, providing better access to optimised hydrographic geo-referenced databases and improving information processing.

The hydrographic databases migration is partially achieved as tide, submarine cables and wrecks are currently managed in SHOM SDI.

A first set of INSPIRE compliant web services is also available:

- SHOM products metadata can be discovered on the French geocatalogue (www.geocatalogue.fr)

- SHOM view services are available at <http://data.shom.fr>

All these services are described on SHOM website (<http://www.shom.fr/les-services-en-ligne/services-inspire/>).

The SDI construction remains active with the development of new web services to be provided in 2013, and the extension to all SHOM thematics. The aim is to achieve a full SDI organization as shown on the following diagram.

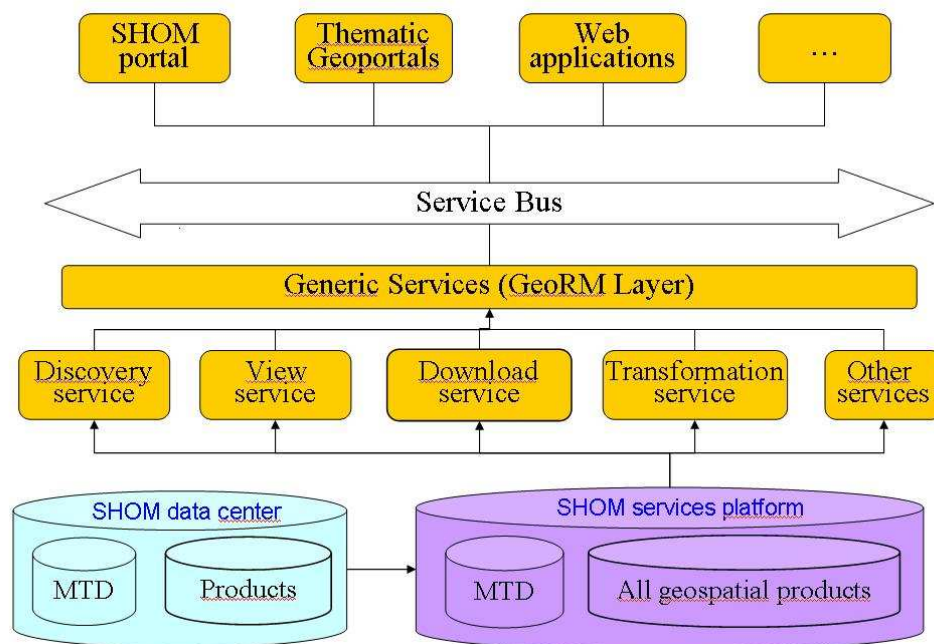


Fig.7: INFRAGEOS project framework.

9.8. International

Because of its overseas territories and primary charting responsibilities, France, represented by SHOM, is a full member or an observer in 9 commissions amongst the 15 organized by the IHO.

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

Name	Chair / Vice chair	Member	Observations
CBSC		✓	Capacity Building Sub-Committee
CSPCWG		✓	Chart Standardisation and Paper Chart Working Group
DIPWG		✓	Digital Information Portrayal Working Group, former CSMWH
DPSWG		✓	Data Protection Scheme Working Group
DQWG		✓	Data Quality Working Group -Last meeting in 1996
EAtHC	✓	✓	Eastern Atlantic Hydrographic Commission
EUWG	✓	✓	ENC Updating Working Group
FC	✓	✓	Vice-chairman of Finance Committee
GEBCO		✓	Joint IOC-IHO Guiding Committee for the General Bathymetric Chart of Oceans (GEBCO)
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)
IRCC		✓	Inter-Regional Coordination Committee
LAWG		✓	Legal Advisory Working
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
NSHC		✓	North Sea Hydrographic Commission
SAIHC		✓	Southern Africa and Islands Hydrographic Commission
SNPWG		✓	Standardisation of Nautical Publications Working Group
SWPHC		✓	South-West Pacific Hydrographic Commission
TSMAD		✓	Transfer Standard Maintenance and Application Development
TWLWG		✓	Tidal and Water Level Working Group
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)

For the many countries benefiting from French support to meet the hydrographic services requirements spelled out by the SOLAS convention, France has implemented a mechanism of gradual transfer of responsibilities through State-to-State administrative arrangements. This mechanism relies on training at SHOM facilities and the formalisation of the respective responsibilities for maritime safety information, hydrographic and charting activities.

10. Conclusions

The actual economic context make Hydrographic Offices even more keen to reconsider their way of gathering hydrographic data with efficiency, not only in the scope of navigation safety, but in support of maritime economy like with maritime boundaries. It will radically influence the approach of capacity building projects within the region. In that way, SHOM, side by side with the IHO, continuously thrives to reinforce international cooperation for the security of mariners and the capacity building of hydrographic services world wide.

