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SERVICE HYDROGRAPHIQUE ET
Océanographique de la Marine

Directorate of Policy, Plans &
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**French national report to the 10th meeting
of the Hydrographic Commission on Antarctica (HCA)**

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1. Hydrographic Office: General

In 2009, a favourable maritime wind blew across France, with the “Grenelle of the Sea” Forum launched in February, the speech of the President of the French Republic in Le Havre in July introducing the foundations of the new French maritime policy and the decisions of the Interministerial Committee of the Sea in December approving the French Blue Book on the national maritime integrated policy.

SHOM contributed actively to this momentum without neglecting its three core missions, i.e. national hydrographic service, environmental support to defence and support to maritime and coastal public policies, and focused on meeting the objectives set out for surveys, research, development and production. SHOM remains devoted to seafarers, civilian and military, and to all categories of sea users, far beyond our national boundaries, with the shared objective to contribute at its level and in its domains of excellence to the sustainable development and the protection of Planet Ocean.

The course bearing for SHOM’s new status, *Établissement Public* since May 2007, was set up in 2008 with the approbation by the SHOM’s Board of Directors of the strategic vision and the related strategic objectives which were endorsed by its two advisory committees (the users advisory committee of SHOM’s products, surveys and services, and the steering committee on military oceanography). The speed has now been determined through the approbation of the “objectives and performance” contract approved by SHOM’s Board of Directors in 2010. No efforts will be spared to meet the many and various requirements developed in this contract, to improve the visibility of SHOM’s capabilities and activities as well as to strengthen our partnerships in this difficult period marked by a comprehensive review of public policies and the current financial crisis.

For information, a list of France’s involvement in IHO activities is provided in the Annex.

2. Surveys

2.1 Coverage of new surveys

SHOM conducts or participates in different types of surveys worldwide:

- i. The first type aims at collecting geophysical information pertinent to defining the extent of the French continental shelves, in accordance with Art 76 of the UN Convention of the Law of the Sea (UNCLOS).
- ii. The second type of surveys is related to SHOM's long term commitment in those areas where France has overseas territories and/or historical links. It is aimed at collecting nautical information with a view to improve SHOM's chart portfolio along the following lines:
 - cataloguing of all existing information;
 - hydrographic surveys (bathymetry, geophysics, sediments, etc.) and production of charts and nautical documents;
 - use of remote sensing (SPOT, ERS, airborne surveys, etc.) to improve the coastal cartography;
 - oceanographic modelling (tides, currents, swell, etc.), eventually in liaison with IOC initiatives if any.
- iii. A third type of surveys has been added to cater for scientific campaigns performed in the HCA area under the aegis of the French Polar Institute – *Institut Paul Emile Victor* (known as IPEV), that operates *Marion Dufresne II* and *L'Astrolabe* research vessels.



Research vessel "Marion Dufresne II"



Supply vessel "L'Astrolabe"

2.1.1 Surveys aimed at collecting geophysical information (UNCLOS)

There is nothing to report in the HCA area.

2.1.2 Surveys aimed at collecting nautical information (improvement of the chart portfolio)

Since the previous meeting (October 2009), SHOM has not conducted any survey in the HCA area.

2.1.3 Surveys performed by IPEV

The table below compiles a register of geophysical and oceanographic cruises in the HCA area operated by IPEV since the previous meeting.

Name	Dates	Objective	Remarks/Labs
ALBION 2010	January 2010	Physical oceanography, (Dumont d'Urville base).	UPMC - LOCEAN

2.2 New technologies and / or equipment

The national research programme GRAVITE (gravity variation and vertical motion in polar regions, constraints on post-glacial rebound and present-day ice melting) might be of interest in the HCA area. It is devoted to perform absolute gravity measurements with the two national equipments in the Arctic (Spitzberg, Iceland) and Antarctica. The scientific objectives are to determine long term temporal changes in gravity and to bring, with the help of precise positioning observations, new constraints on the problem of past and present deglaciations.

2.3 New ships

NTR.

2.4 Problems encountered

As many other IHO member states, France is tasked with 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 HOs, 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 charting authority (in compliance with M-3 Resolution 1/1937 – A1.15 § 2 as amended¹).

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.

3. Charts and Publications

a. Charts

a.1 New charts & updates

No paper charts have been produced since the last meeting. Charts covering Kerguelen, Crozet and Saint-Paul-Amsterdam islands are included in the Region H (SAIHC area).

a.2 ENCs

No change to the prevision presented at the last meeting has occurred since then (no new ENC has been released in the area, and no supplementary ENC is planned to be produced for the next two years).

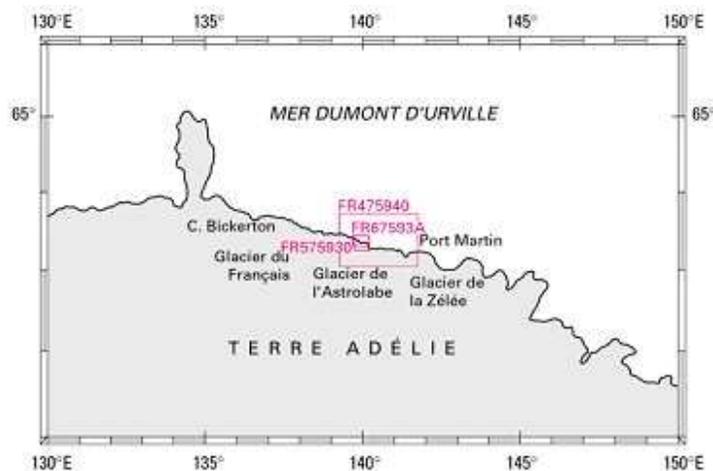
France is still ready to produce the ENC FR175910 corresponding to INT chart number 901 (scale 1/2000000). An agreement for boundaries shall be found because of an overlap with ENCs produced by other countries (Australia and New Zealand). IHB as chart coordinator of Region M and Australia as chart coordinator of Region L are invited to address this issue in liaison with ENC producers.

¹ See IHO CL 29/2009.

The status of ENC production in the area is:

Usage Band	Planned Cells	Produced Cells	%
1	1	0	0%
2	0	0	N/A
3	0	0	N/A
4	1	1	100%
5	2	1	100%
6		1	
Total	4	3	75%

The French ENC coverage in the HCA area is summarised in the chartlet below:



French ENC coverage in the HCA area

a.3 RNCs

NTR.

a.4 INT Charts

See item a.1.

In agreement with the IHO S-11 publication, the status of INT charts production in the area is:

Scale	Planned INT charts	Produced INT charts	%
Small (< 1/1 000 000)	1	1	100%
Medium	1	1	100%
Large (> 1/100 000)	2	2	100%
Total	4	4	100%

a.5 National paper charts

See item a.1.

a.6 Other charts e.g. for pleasure crafts

NTR.

a.7 ENC Distribution method

All French ENCs are distributed by PRIMAR RENC.

a.8 Problems encountered

NTR.

b. Publications

Type	Title
DIV	Tide table 2010 – Vol 2 – Overseas ports
DIV	Tide table 2011 – Vol 2 – Overseas ports
RSX	92.3 Maritime radiocommunications: America and Antarctica (2010)
RSX	96.2 Marine weather broadcast stations: Southwest Pacific, America and Antarctica (2009)
LL	List of Lights: Vol L, Indian Ocean and Australia (2009)

IN: Sailing directions

RSX: Radio stations (The CD-ROM with the digital version of RSX signals is now available for the French Navy only).

LL: List of Lights

DIV: Miscellaneous



RSX CD-ROM

4. MSI

NTR.

5. Capacity Building

5.1 Offer of and/or demand for Capacity Building

France participates in the IHO Capacity Building sub-committee and supports the IHO Regional Hydrographic Commissions of which SHOM is a member, especially the Southern Africa and Islands Hydrographic Commission (SAIHC), the Eastern Atlantic Hydrographic Commission (EAtHC), the South-West Pacific Hydrographic Commission (SWPHC), the Meso-American and Caribbean Sea Hydrographic Commission (MACHC) and the Mediterranean and Black Sea Hydrographic Commission (MBSHC).

5.2 Training received, needed, offered

Initial training capabilities provided by SHOM are described in its yearly report available on www.shom.fr.

5.3 Status of national, bilateral, multilateral or regional development projects with hydrographic component. (In progress, planned, under evaluation or study)

NTR.

6. C-55 Latest update

The C-55 database for French areas of responsibilities is updated by SHOM on a yearly basis.

Separate entries are now available for France areas in each IHO region. A regular annual updating process has been put in place for periodic updates (last update made by France on 21 May 2010 for Region M).

7. Oceanographic activities

As it can be seen at the Annex, SHOM is member of the GEBCO Directing Committee.

Acting actually as the national coordinator of sea level measurements, SHOM is responsible in France for tide predictions, and collects all sea level data available. In support of this activity, it maintains a digital tide gauge network as part of the French contribution to the IOC Tsunami Alert System scheduled in a first phase for the Indian Ocean, and meant to be further extended to the rest of the world. This role was emphasized in 2009 with the launch of the CRATANEM project, which aims at setting up a national warning centre for tsunamis for the North eastern Atlantic and the Mediterranean. SHOM is a partner of this project with four other agencies. Work is in progress to enhance the permanent SHOM's tide gauge performances (real-time data transmission) and to increase the network coverage in more appropriate locations.

The NIVMER programme aims at maintaining the tide gauge network in the Southern ocean. In 2009, tide gauge maintenance, GPS and levelling measurements were performed in Dumont d'Urville base.

8. Conclusions

Less than 1% of the sea area within the 200m contour has been adequately surveyed to meet the needs of contemporary shipping entering Antarctic waters. Resources for hydrographic surveying and nautical charting are expensive and sparse. Member states often have higher priority survey requirements within their own immediate territorial waters. Given the present inadequate chart coverage in the region and the exponential increase in marine traffic through Antarctic waters, the potential risks of harm to the maritime industry, persons and the fragile Antarctic environment, are great. In consequence, a compromise shall be found in the way to survey this region: on one hand, the objective is to ensure the safety of navigation in Antarctica, but on the other hand, a development of the cartography in the region will encourage the maritime traffic, which represents a potential risk for the environmental protection (establishment of infrastructures, pollution...).

ANNEX

**France's participation to IHO Regional Hydrographic Commissions,
Committees, Sub-Committees & Working Groups**

Name	Chair Vice chair	Member	Observations
S-23 WG		✓	Revision of S-23 Working Group
FC	✓	✓	Vice-chairman of Finance Committee
HSSC		✓	Hydrographic Services and Standards Committee
TSMAD	✓	✓	Vice-chairman of Transfer Standard Maintenance and Application Development
DPSWG		✓	Data Protection Scheme Working Group
DIPWG		✓	Digital Information Portrayal Working Group
SNPWG		✓	Standardisation of Nautical Publications Working Group
CSPCWG		✓	Chart Standardisation and Paper Chart Working Group
DQWG		✓	Data Quality Working Group
MSDIWG		✓	Marine Spatial Data Infrastructure Working Group
TWLWG	✓	✓	Vice-chairman of Tidal and Water Level Working Group
HDWG		✓	Hydrographic Dictionary Working Group
EUWG	✓	✓	Chairman of ENC Updating Working Group
IRCC	✓	✓	Ingénieur général Gilles Bessero has been elected first chairman of the Inter Regional Coordination Committee at the 4 th Extraordinary IH Conference
NSHC	✓	✓	Vice-chairman of North Sea Hydrographic Commission
MBSHC		✓	Mediterranean and Black Seas Hydrographic Commission
EAHC		✓	Eastern Atlantic Hydrographic Commission

SWPHC	✓	✓	Chairman of South-West Pacific Hydrographic Commission
MACHC		✓	MESO American & Caribbean Sea Hydrographic Commission
SAIHC		✓	Southern Africa and Islands Hydrographic Commission
NIOHC		✓	North Indian Ocean Hydrographic Commission
HCA		✓	Hydrographic Commission on Antarctica
WWNWS	✓	✓	Vice-chairman of World-wide Navigational Warning Service Sub-Committee
WENDWG		✓	World-wide ENC Database Working Group
CBSC		✓	Capacity Building Sub-Committee
GEBCO		✓	Joint IOC-IHO Guiding Committee for the General Bathymetric Chart of Oceans (GEBCO)