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N° 23 SHOM/DSPRE/REX/NP

SERVICE HYDROGRAPHIQUE ET
Océanographique DE LA MARINE

Directorate of Policy, Plans &
External Relations

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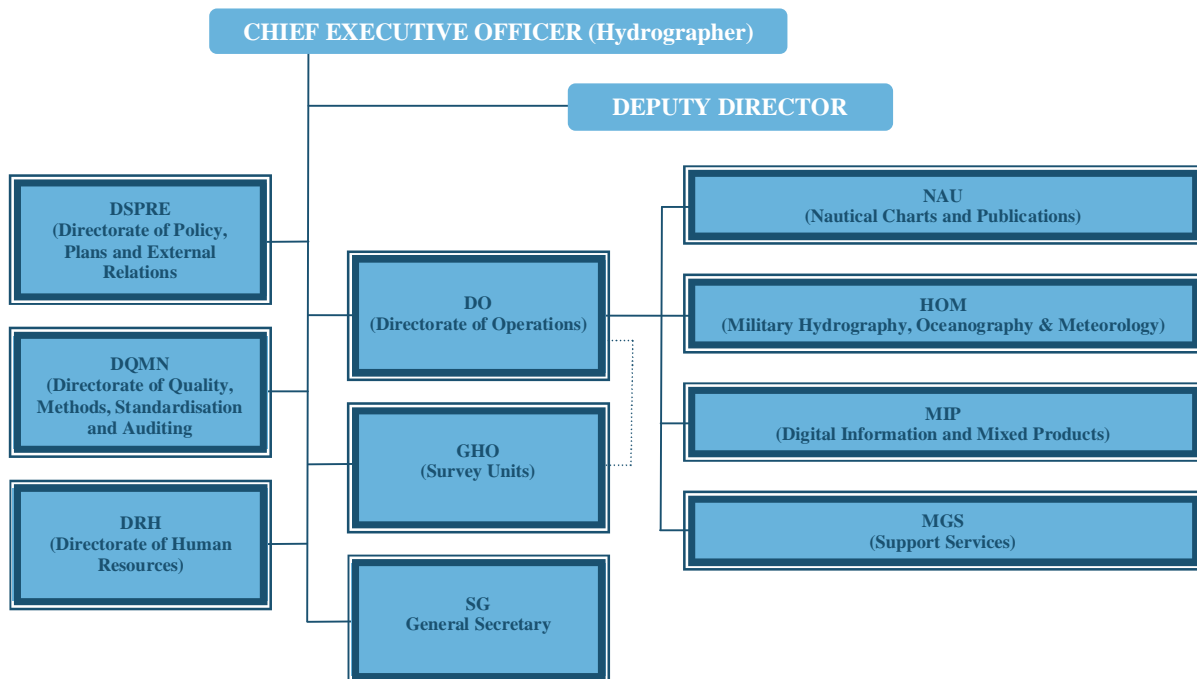
**Rapport de la France à la 15^{ème} conférence de la commission
hydrographique de la Méditerranée et de la mer Noire
(CHMMN)**

**French national report to the 15th Mediterranean and Black Sea
Hydrographic Commission (MBSHC) meeting**

1. Service hydrographique / Hydrographic Office

Since the 11th of May 2007 SHOM, whilst keeping its name, has become an *Établissement Public*, i.e. a national establishment endowed with a legal personality independent from the French Government.

SHOM's new organisational chart is as follows:

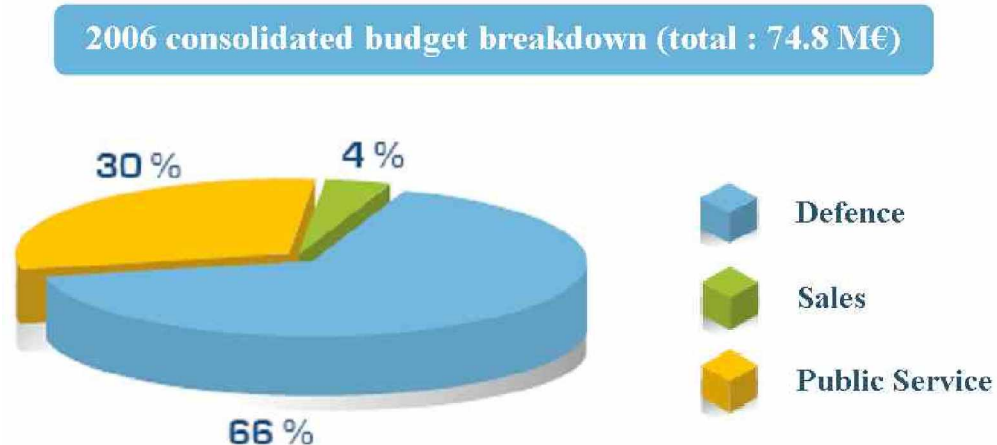


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SHOM is managed by a Chief Executive Officer (Hydrographer) appointed by decree and supervised by a Board of Directors of 20 members representing a broad section of the French administration (Prime Minister, ministers of budget, defence, environment, industry, overseas and transport, several Government services and agencies). The Navy retains its prominent role by having the Board of Directors chaired by the Chief-of-Staff and providing the survey vessels onboard which SHOM's Survey Units operate.

It should be stressed that SHOM's change of statute will have little or no incidence on the service's inconsiderable commercial ambitions, which will remain irrelevant against its two primary missions, i.e. Defence support and Public Service, in charge of safety of navigation (SOLAS) and support of French national and international maritime policies.

This is reflected by the following figures:



Although SHOM's head office has been moved from Paris to Brest in November 2005, the division in charge of external relations has remained in Paris. It is located presently within the premises of the French National Geographic Institute (IGN) in Saint-Mandé, a few hundred metres away from Paris' "Porte de Vincennes".

In June 2004, SHOM was awarded the ISO 9001:2000 certificate for its activities performed for the safety of navigation, including surveys and nautical information. This certification was further extended in the summer 2006 to all SHOM's remaining activities, including defence, training and - it is worth insisting - R&D.

To finish on a diplomatic note, it should be reported that the protocol of amendments to the IHO convention has been ratified by the French Parliament on the 28th of July 2007.

- 2. Levés / Surveys: Couverture des nouveaux levés / Coverage of new surveys**
Technologies et/ou équipements nouveaux / New technologies and /or equipment
Nouveaux navires / New ships
Problèmes rencontrés / Problems encountered

2.1 Couverture des nouveaux levés / Coverage of new surveys

SHOM's surveys aim at collecting nautical information to improve the national chart portfolio. It may consist of any of the following activities:

- Cataloguing of all existing information.
- Oceanographic modeling (tides, currents, swell, etc.).
- Use of remote sensing (SPOT, ERS, airborne surveys, etc.) to improve the coastal cartography.
- Hydrographic surveys (bathymetry, geophysics, sediments, etc.) and production of charts and nautical documents.

Since the last meeting (October 2005), no extensive survey has been conducted in SHOM's MBSHC area of responsibility, however, routine checks have been performed in the ports of Toulon, Marseille and vicinity.

A REA survey was conducted by Beautemps-Beaupré along the coast of Croatia in September 2007 as part of the NATO exercise Noble Midas 07.

In addition, the Sailing Directions of Corsica have been updated and the RONIM national tidal network has been completed in the ports of Nice and Toulon.

Further calibrations have been conducted in Corsica and the Marseille region with a view to extend to the Mediterranean the Litto3D ® national programme (see § below and annex).

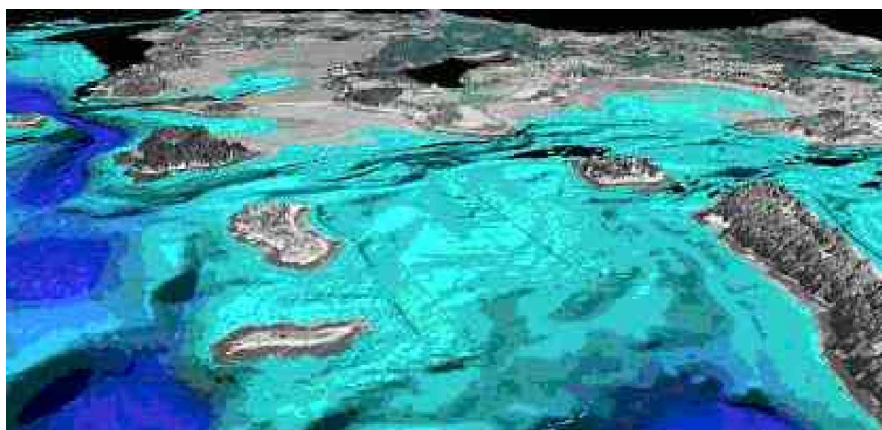
2.2 Technologies et/ou équipements nouveaux / New technologies and /or equipment

The Litto3D ® project

As mentioned at § 2.1 above, SHOM is making extensive use of remote sensing, both satellite and airborne, to improve its chart portfolio. One of its current developments is the Litto3D ® project presented at the annex. The main objective of Litto3D ® is to develop a high resolution DTM foundation for integrated coastal management applications. It is carried out by SHOM and the National Geographic Institute (IGN).

The most tangible consequence of this project is that, from 2007 onward, French public should have access on the national Geoportal to the historical seamless database covering the entire French coastal areas. The detailed coastline is already accessible to the public while the "Histolitt" database should be made available through the same portal, before the end of 2007.

The historical data will be gradually improved by new, more accurate surveys, as the project unfolds over the next 10 years.



Orthoimage draping on the Morbihan DTM

2.3 Nouveaux navires / New ships

To complete the French previous national report, a photograph of the new ocean research vessel *Pourquoi-pas?* has been posted below.

Pourquoi-pas? was admitted to active service in September 2005. She is a 6 500 t multi-purpose ship funded jointly by the Ministry of Defence (45%) and the Ministry of Research (55%) and shared almost equally between SHOM and Ifremer (the French research institute for the exploitation of the Ocean). SHOM is entitled to 150 days per year, which started in the 2nd semester 2006 by a maiden cruise in the Caribbean.



The Ocean Survey ship *Pourquoi pas ?*

2.4 Problèmes rencontrés / Problems encountered

As many other IHO member states, France is tasked with collecting nautical information and surveying international waters that would otherwise remain uncharted.

Although SHOM is kept informed through diplomatic channels of Maritime Scientific Research clearance in the waters placed under France national jurisdiction, it is important to keep in mind that it is in the interest of the international maritime community that survey results are automatically communicated to the IHO recognised charting authority (ref. M-11).

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

3. Cartest et ouvrages / Charts and Publications:

a. Nouvelles cartes et mises à jour / New charts & updates

ENCs

RNCs

Cartes INT / INT charts

Cartes imprimées nationales / National paper charts

Autres cartes (par exemple pour plaisanciers) / Other charts e.g. for pleasure cr

Distribution des ENC / ENC Distribution method

Problèmes rencontrés / Problems encountered

The following paper charts have been produced since the 14th conference (4-5 October 2005):

N° National	N° INT	Nlle pub. (NC) ou nlle éd.(NE) New chart (NC) or new edition (NE)	Echelle 1/ Scale 1:	Date	Titre / Title
3975	/	NE	500 000	May 2007	<i>Mer Adriatique – Partie Nord (change of Traffic Scheme)</i>

3987	/	NE	175 000	May 2007	<i>Des bouches du Pô à Ancône (change of Traffic Scheme)</i>
4718	/	NE	247 000	Nov 2006	<i>De la Pointe del Sabinal à Carthagène (change of Traffic Scheme)</i>
5700	/	NE	10 000	March 2006	<i>Port du Pirée et baie de Phalère – Port Héraclée</i>
6569	/	NE	200 000	Nov 2006	<i>Mer d'Alboran – Feuille Nord (change of Traffic Scheme)</i>
6963	/	NE	100 000	June 2006	<i>De San rossore au canal de piombino – Iles d'Elba, Capraia et Gorgona (Fs IT 4)</i>
7019	/	NE	100 000	Dec 2006	<i>De Imperia à Portofino (Fs IT 2)</i>
7020	/	NE	10 000 – 5 000	Nov 2005	<i>Ports du Golfe de Gènes (Genova) – Insert A : Porto di Imperia – Insert B : Porto di Portofino – Insert C : Porto di Santa Margherita Ligure – Insert D : porto di Sestri Levante</i>
7042	3150	NE	100 000	June 2007	<i>Détroit de Gibraltar (Fs ES 105)</i>
7046	3185	NE	12 500	Aug 2007	<i>Puerto de Barcelona (Fs ES 4891)</i>
7074	3754	NE	50 000	June 2006	<i>De Yesilkôy à Yelkenkaya Burnu – Approches sud du Bosphore (Fs TR 2923)</i>
7103	/	NE	20 000	May 2006	<i>Kolpos Elevsinas</i>
7189	/	NE	25 000	June 2007	<i>Golfes d'Olbia et d'Aranci – Iles Tavolara et Molara (Fs IT 322)</i>
7228	/	NE	50 000	June 2007	<i>Abords de Venise – De Porto Levante à Porto di Lido (change of Traffic Scheme) (Fs IT 222)</i>
7244	3410	NE	250 000	June 2007	<i>De Porto Corsini à Velebitski Kanal – Golfe de Venise (change of Traffic Scheme)(Fs YU 3410)</i>
7290	3362	NE	10 000	May 2007	<i>Porto de Genova – Partie Est (Fs IT 55)</i>
7433	1972	NC	22 500	Apr 2007	<i>Abords du port de Tanger-Med</i>
7506	3361	NE	10 000	May 2007	<i>Porto de Genova – Partie Ouest (FS IT 54)</i>
7524	3216	NE	500 000	Nov 2006	<i>De Cap Afrique à Mişrātah (Fs GB 3403)</i>
7539	3414	NC	250 000	June 2006	<i>De Dubrovnik à Durrës (Fs HR 3414)</i>

The following paper charts are planned in 2007:

N° National	N° INT	Nlle pub. (NC) ou nlle éd.(NE) New chart (NC) or new edition (NE)	Echelle 1/ Scale 1:	Titre / Title
6907	/	NE	25 000	<i>Etang de Berre</i>
7390	3196	NE	10 000	<i>Port de Marseille</i>
7391	/	NE	12 500	<i>Abords Sud de Marseille- Des Iles du Frioul à l'Ile de Jarre</i>

The following paper charts are planned in 2008-2010:

N° National	N° INT	Nlle pub. (NC) ou nlle éd.(NE) New chart (NC) or new edition (NE)	Echelle 1/ Scale 1:	Titre / Title
6961	3364	NE	25 000	<i>Italie – Golfe de la Spézia (Fs IT 115).</i>
7093	3198	NE	10 000	<i>Rade de Toulon</i>
7528	3392	NE	30 000	<i>Abords de Palermo (Fs IT 255 et IT 256).</i>
7534	3365	NC	10 000	<i>Italie – Rade de la Spézia (Fs IT 60).</i>
7535	/	NC	5 000	<i>Port de la Spézia (Fs IT 59).</i>
7543	3548	NC	25 000	<i>Bur Saïd (Fs UK 240)</i>
7544	3549	NC	50 000	<i>Bur Saïd (Fs UK 241)</i>
XXXX	/	NC	50 000	<i>Golfo di Palmas (Fs IT 298).</i>
XXXX	/	NC	25 000	<i>Canale di San Pietro (Fs IT 294). Replaces 5345</i>
XXXX	/	NC	5 000	<i>Iraklion (Fs GR 443 et GR 4431). Replaces 6709</i>

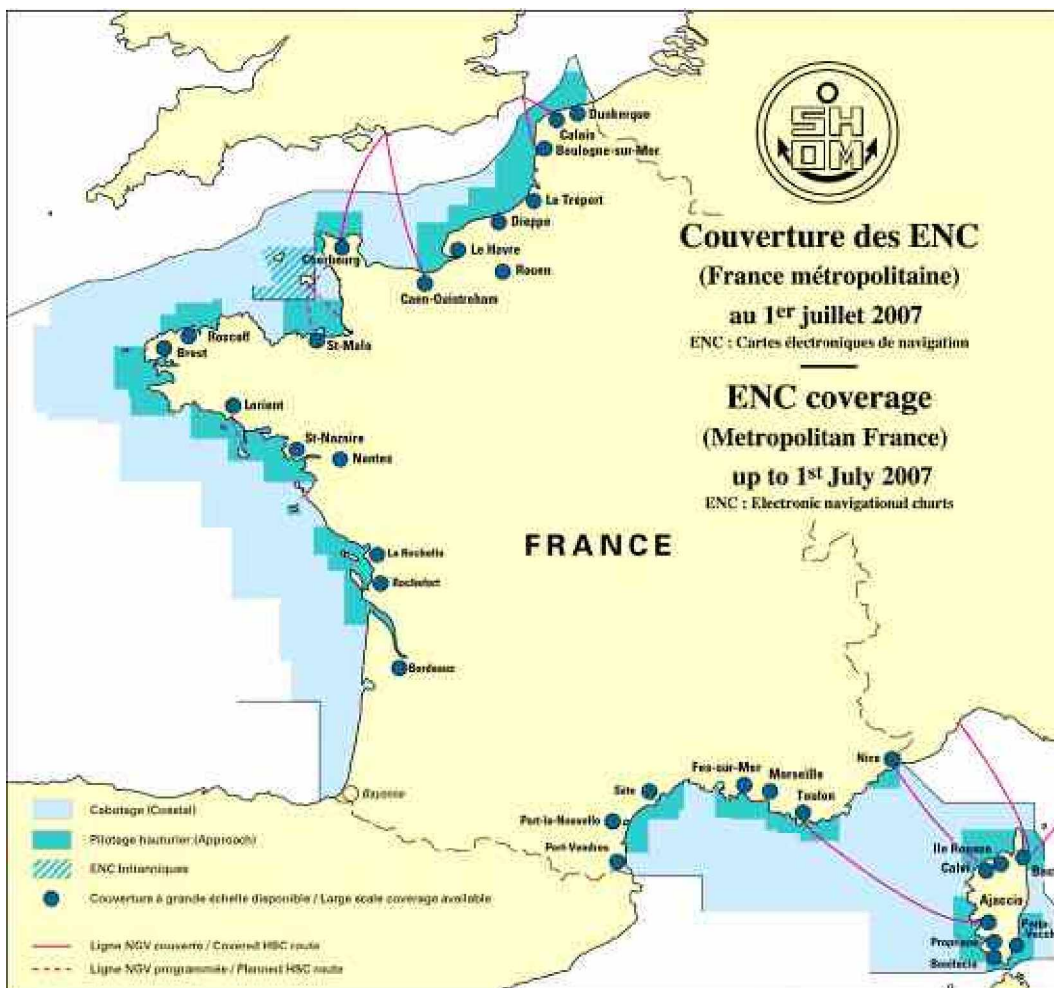
ENCs

On the 1st of October 2007, SHOM had produced some 231 ENCs at an approximate rate of 40 to 50 per year. The full collection should eventually reach a figure of the order of 700 ENCs.

Europe approaches are well covered, on account of commercial and passengers sailing requirements. Production in non European waters (areas of international responsibilities, overseas territories) is progressing.

In accordance with the WEND principles, France produces its small scale ENC cells as closely as possible to INT chart schemes.

To date, the Metropolitan France ENC coverage is depicted in the chart below, where High Speed Crafts routes are represented in red:



However, there is a need for improved coordination with Italy to avoid gaps/data overlaps in the production of usage band 3 ENC's in the Menton and Bonifacio areas.

The production of the following cells should be completed in 2007:

Zone / Area	Gamme d'utilisation / Usage Band	N° carte imprimée FR / Fr paper chart Nr	Observations
<i>Accès port Popriano</i>	5	6851	
<i>Accès port Bonifacio</i>	5	7096	
<i>Accès port Porto Vecchio</i>	5	6911	
<i>Corse Sud - Bouches de Bonifacio</i>	4	6942, 7162, 7024, 6929, 6855	
<i>Accès port Tanger</i>	4	7433	<i>Abords du port de Tanger-Med (Apr 2007)</i>
<i>Liban</i>	5	7514 (Insert D)	Tyr

The production of the following cells has been planned in 2008-2010:

Zone / Area	Gamme d'utilisation / Usage Band	N° carte imprimée FR / Fr paper chart Nr	Observations
<i>Côtes Méditerranée est</i>	4	7408	
<i>Côtes Méditerranée est</i>	5	7205, 6838, 7267, 6616, 6615, 7282	

<i>Côtes Méditerranée est</i>	6	7200, 7205, 7267	
<i>Corse ouest</i>	4	7050	
<i>Côtes Méditerranée ouest</i>	4	6693, 7053	
<i>Corse est</i>	4	6823, 6855	
<i>Corse nord</i>	4	6969, 6822	
<i>Côtes Méditerranée est</i>	5	6610, 6612, 7393	
<i>Ports de plaisance - Méditerranée</i>	6	7205, 6838, 7267, 6616, 6615, 7282, 6610, 6612, 7393	

Due to IMO regulations on ECDIS carriage requirements, France will ensure that all HSC lines in French waters are covered with ENC by 2008.

b. Ouvrages / Publications

Nouvelles publications / New publications

Mises à jour - Editions / Updated publications - Editions

Distribution (papier et numérique) / Means of delivery e.g. paper, digital

Problèmes rencontrés / Problems encountered

Type	Nr	Titre / Title
IN	D22-INA	<i>France (côte Sud) : du Cap Croisette à la frontière italienne (Edition 2006)</i>
LL	DC--FNA	<i>Méditerranée occidentale – partie Nord (Edition 2007)</i>
LL	DE--FNA	<i>Méditerranée orientale – Mer Noire (Edition 2005)</i>
RSX	91--RNA	<i>Radionavigation maritime (Edition 2006)</i>
RSX	922-RNA	<i>Radiocommunications maritimes – Volume 2 : Afrique – Asie – Australie (Edition 2005 – DMS le 05/05/2005)</i>
RSX	932-RNA	<i>Radiocommunications pour la surveillance du trafic et le pilotage – Volume 2 : Europe occidentale – Méditerranée (Edition 2006)</i>
DIV	961--RNA	<i>Stations radiométéorologiques – Volume 1 : Europe, Afrique et Asie (Edition 2005 - DMS le 24/12/2005)</i>
DIV	99--RNA	<i>Répertoire des radiosignaux à l'usage du petit cabotage, de la pêche et de la plaisance – Côtes européennes, Méditerranée, Mer Noire, Madère/Canaries/Açores, Petites Antilles (Edition 2007)</i>
DIV	085-MAA	<i>Annuaire des marées 2008, tome 1 – Ports de France</i>
DIV	075-MAA	<i>Annuaire des marées 2007, tome 1 – Ports de France</i>
DIV	001DNOA	<i>Symboles, abréviations et termes utilisés sur les cartes marines (Edition 2006)</i>
DIV	021-PIG	<i>Naviguer en sécurité (Edition 2006 – Ce document ne concerne que la navigation de plaisance)</i>
DIV	004-ZKA	<i>Catalogue des cartes marines et des ouvrages nautiques (Edition 2007)</i>
DIV	008-ZKI	<i>Le petit catalogue (Edition 2007)</i>

IN : Instructions nautiques / Sailing directions

RSX : Radiosignaux / Radio stations

LL : Livre des feux et signaux de brume / List of Lights

DIV : Divers / Miscellaneous

Distribution (papier et numérique) / Means of delivery e.g. paper, digital

SHOM aims at generating by digital means its entire paper production. This should be achieved by using international standards such as XML and following closely the recommendations of experts such as the NSHC's WG on standardisation of digital exchange of NtMs.

All ENC's are distributed through PRIMAR ® RENC.

Problèmes rencontrés / Problems encountered

An important regulation corpus has been developed for the establishment and use of ENC's while the equivalent standardisation for digital nautical books is still lagging. As a result, the rules of use of these documents are not clearly established.

4. RSM / MSI

Infrastructures de transmission existantes / Existing infrastructure for transmission

Nouvelles infrastructures dans le cadre du SMDSM / New infrastructure in accordance with GMDSS Master Plan

Problèmes rencontrés / Problems encountered

Rien à signaler / NTR

5. Création de capacités / Capacity Building

Offre / demande pour la création de capacité / Offer of and/or demand for Capacity Building

Formations reçues, requises, offertes / Training received, needed, offered

Projets de développements bilatéraux, multilatéraux, régionaux avec composante hydrographique (en cours, prévu, en cours d'évaluation ou de faisabilité) Status of national, bilateral, multilateral or regional development projects with hydrographic component. (In progress, planned, under evaluation or study)

5.1 Offre / demande pour la création de capacité / Offer of and/or demand for Capacity Building

France participates in the IHO Capacity Building committee and supports the IHO Regional Hydrographic Commissions of which SHOM is a member, especially the SAIHC and the Eastern Atlantic Hydrographic Commission (EAtHC), and to a lesser extent the South-West Pacific Hydrographic Commission (SWPHC), the North Indian Ocean Hydrographic Commission, the MESO American and Caribbean Sea Hydrographic Commission (MACHC) & the Mediterranean and Black Sea Hydrographic Commission (MBSHC).

5.2 Formations reçues, requises, offertes / Training received, needed, offered

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

5.3 Projets de développements bilatéraux, multilatéraux, régionaux avec composante hydrographique (en cours, prévu, en cours d'évaluation ou de faisabilité) / Status of national, bilateral, multilateral or regional development projects with hydrographic component. (In progress, planned, under evaluation or study)

5.3.1 Transfert de responsabilité en application de la convention Solas / Transfer of responsibility in line with the SOLAS convention

France has implemented a mechanism of transfer of responsibility in the fields of hydrography and cartography, based on training programs and on-the-job tasks.

These are detailed in the agreements likely to be signed with Morocco (DTHOC) and Algeria (STFN) at the end of 2007 or early 2008.

Another co-operation programme with Tunisia (CHOMT) has been initiated, that might eventually lead to an agreement in 2008.

The following training programmes are currently in progress:

	Year	Algeria	Morocco
Cartographic course (9 months)	2007		2
	2008	1	2
Cat.B Hydrographic course (16 months)	2007		1
	2008		1

5.3.2 Coopération avec les commissions hydrographiques régionales adjacentes / Co-operation with adjacent hydrographical regional commissions (EAtHC):

It is reminded that the 9th EAtHC commission (December 2006 – Dakar, *Sénégal*) mentioned the two following issues implying coordination with MBSHC:

- Coordination between Morocco and Spain to include in the CHAtINTCHART catalogue the Spanish chart Nr 445 that covers the new port of Tanger-Med (action EAtHC 9-11).
- Coordination between MBSHC and EAtHC to suppress any possible overlaps/gaps between ENC cells and data (action EAtHC 9-12).

6. Mise à jour S-55 / S-55 Latest update

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

Separate entries are now available for France whichever the IHO region. A regular annual updating process has been put in place for future updates.

7. Activités en océanographie / Oceanographic activities

Généralités / General

Activités GEBCO et CBI / GEBCO/IBC's activities

Réseaux marégraphiques / Tide gauge network

Nouveaux équipements / New equipment

Problèmes rencontrés / Problems encountered

SHOM is member of the GEBCO Directing Committee and is an active partner of two International Bathymetric Charting projects (Eastern Atlantic Ocean, Indian Ocean).

It is worth noting that SHOM is responsible in France for tide predictions, and collect 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.

Two digital tide gauges have been installed in Morocco with an expertise and a training assumed by SHOM

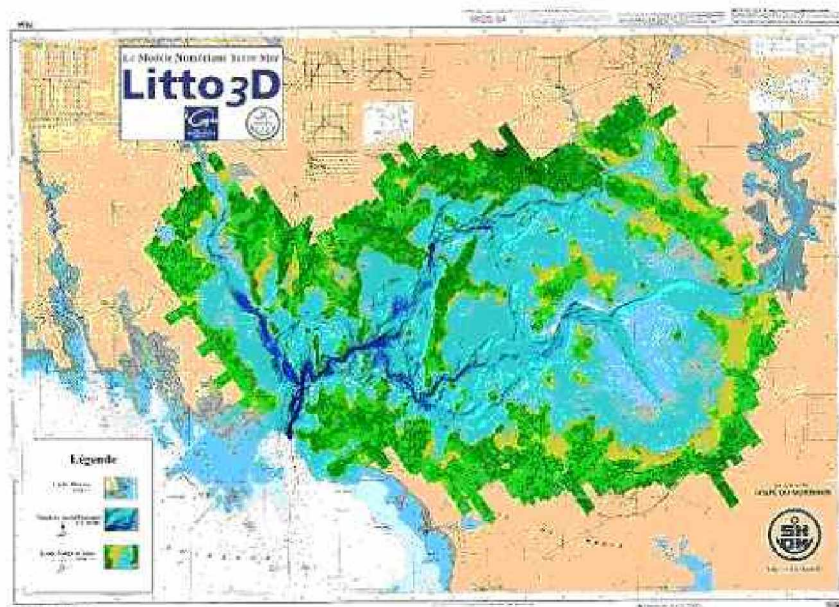
8. Conclusions / Conclusions

Rien à signaler / NTR

Ingénieur en chef Yves Guillam
Head of Policy, Plans and External Relations

Annexe / Annex

Le projet Litto3D®
The Litto3D® project



Conducted jointly by SHOM and IGN, the French National Institute of Geography, the Litto3D project aims at creating a reference national database covering the French's and French Overseas' coastal regions by merging hydrographic soundings, land heights and water levels generated by highly precise tide models.

Starting with the “*Histolitt*” historical data, which should be available as early as 2007, the Litto3D full database will be released through the appropriate information portal to the Authorities in charge of the integrated management of the French coastal domain. The detailed coastline is already accessible to the public on the Geoportal.

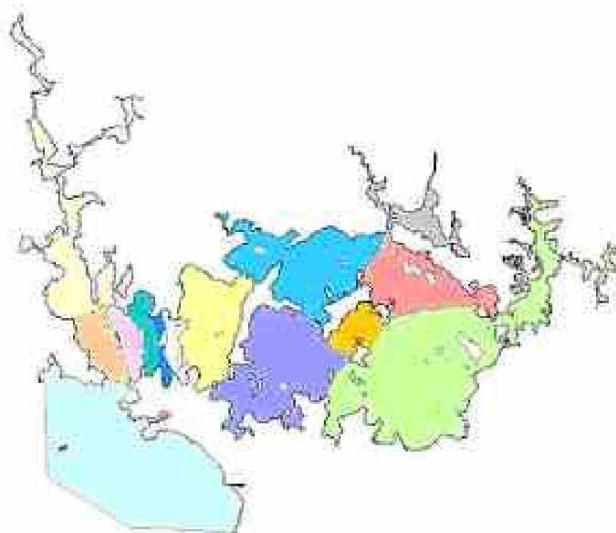


Gestion intégrée des zones côtières: simulation d'une onde de tempête centenaire
Integrated coastal management : simulation of a centennial tidal surge

After conducting a thorough examination of the existing data against modern requirements, SHOM and IGN concluded first that the historical database would fall short of the public expectations in terms of quality, precision, density and coverage.

From then on, the project concentrated on identifying a system capable of delivering land and sea heights with a precision better than 30 centimetres. It finally came to the conclusion that the desired information could be obtained by means of a combination of hydrographic multibeam soundings (MBES) and laser air surveys (Bathytopo lidar).

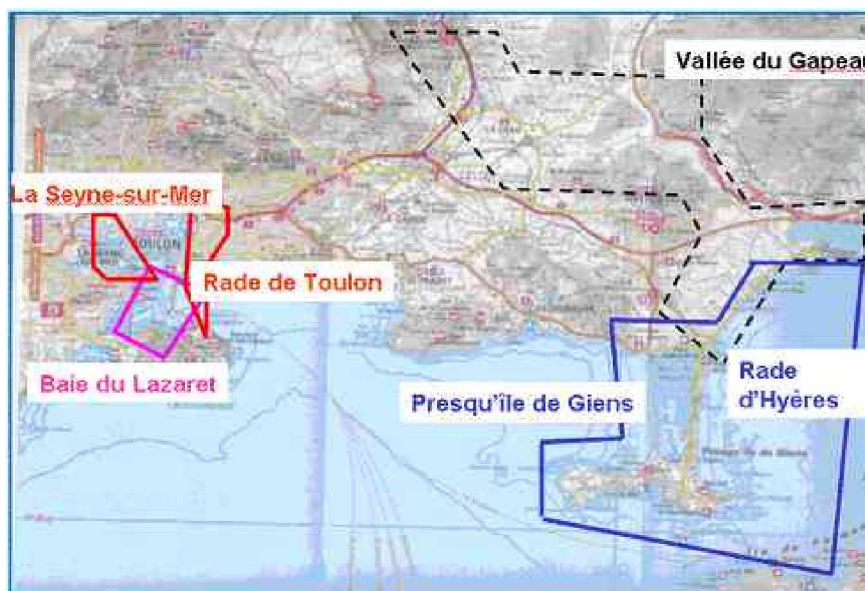
During the Spring of 2005, extensive testing was conducted in *Golfe du Morbihan*, a large South Brittany inlet known of French surveyors for being a Hydrographer's nightmare.



Un cauchemar pour les hydrographes : les 14 zones de marée du golfe du Morbihan

A Hydrographer's nightmare : the Golfe du Morbihan's 14 tidal zones

Further experiments have been conducted on the French Mediterranean coast in the summer of 2007.



Le démonstrateur en Méditerranée

The Mediterranean demonstrator

The first results confirmed the validity of the method chosen and paved the way for further deployment of the new techniques over the entire French coastal domain.

The Litto3D project has been approved at the Government's highest level during the Interdepartmental Committee of the Sea (*CIMER*) of 29 April 2003, and confirmed again during the Interdepartmental

Committee for the Management of the Territory (*CIADT*) of 13 September 2004. This project should engage IGN and SHOM for the next decade.