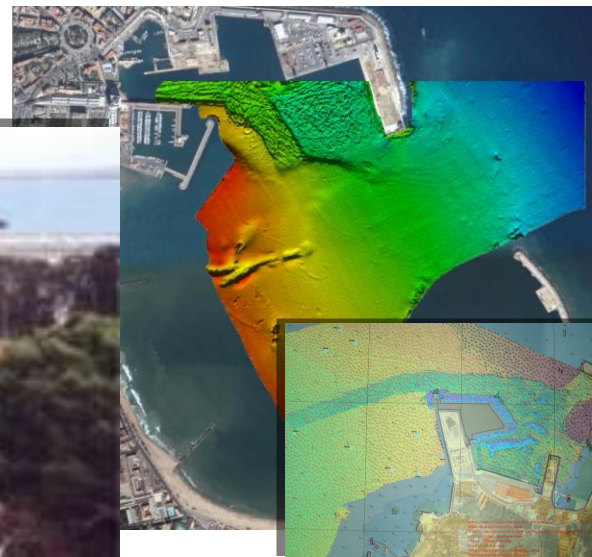
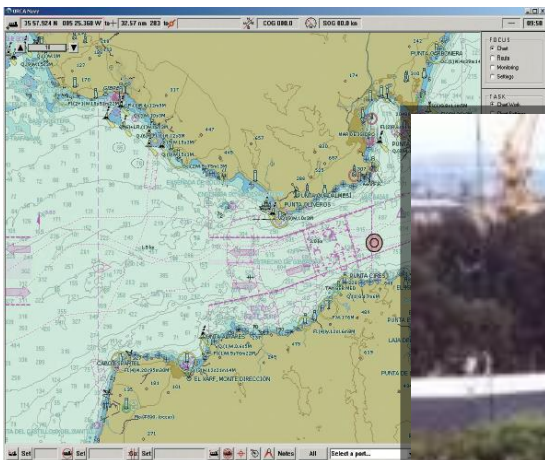




INSTITUTO HIDROGRÁFICO DE LA MARINA: 11th Meeting EATHC

EATHC11-09.1D



Accra, 25 november 2010





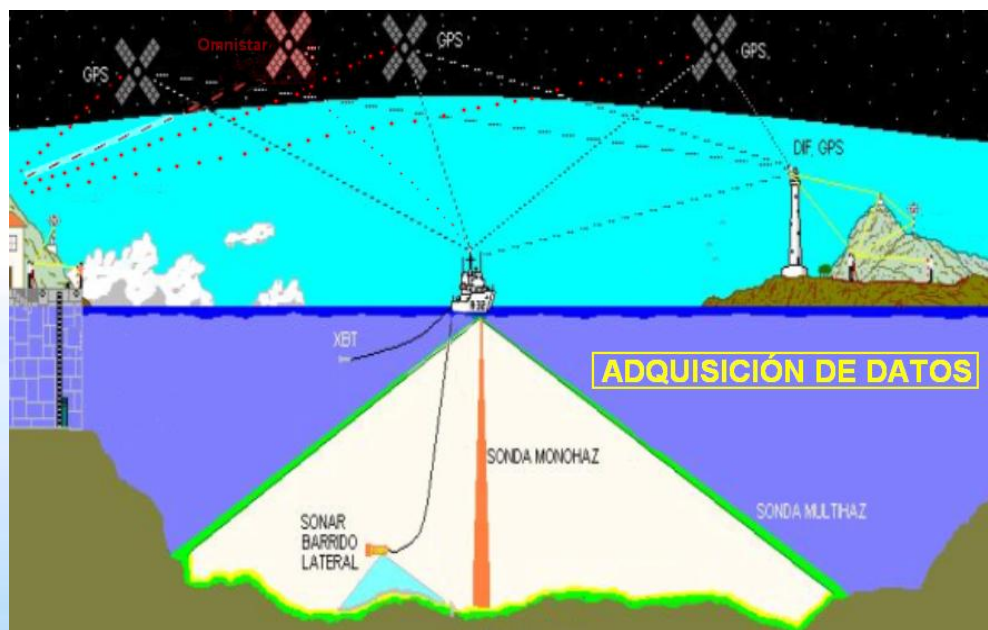
GUIDELINES

- ✓ SURVEYS
- ✓ NEW CHARTS AND UPDATES
- ✓ NEW PUBLICATIONS AND UPDATES
- ✓ MARITIME SAFETY INFORMATION (MSI)
- ✓ S-55. REGION G
- ✓ CAPACITY BUILDING
- ✓ OCEANOGRAPHICS ACTIVITIES
- ✓ OTHERS ACTIVITIES



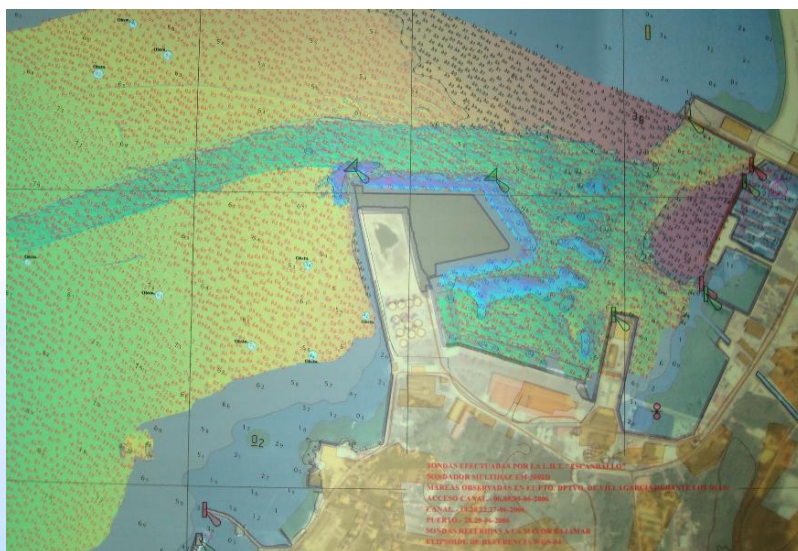
SURVEYS

- In order to update our bathymetry covering the Atlantic Ocean, this IHM has scheduled and carried out sixteen surveys in the last two years using our hydrographic vessels



SURVEYS

- This IHM continued the plan to survey all main ports and their approach channels using hydrographic survey launches (HSL) 12 metres long, fitted multibeam echosounders for shallow waters



SURVEYS

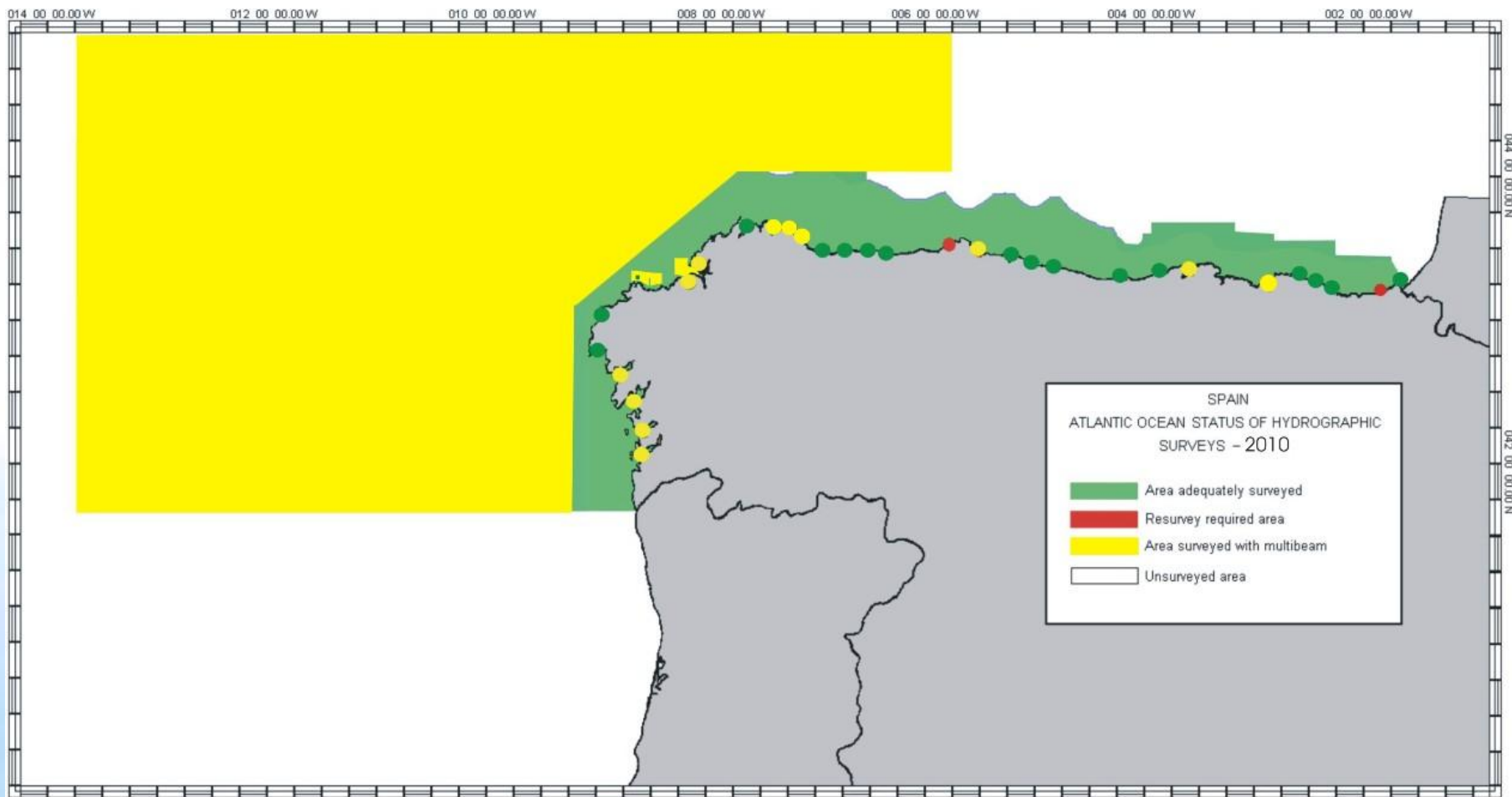
- This IHM has also been surveying the Spanish EEZ once a year since 1995. These surveys are carried out by a hydrographic team onboard Oceanographic Research Vessel (ORV) "Hespérides"





SURVEYS

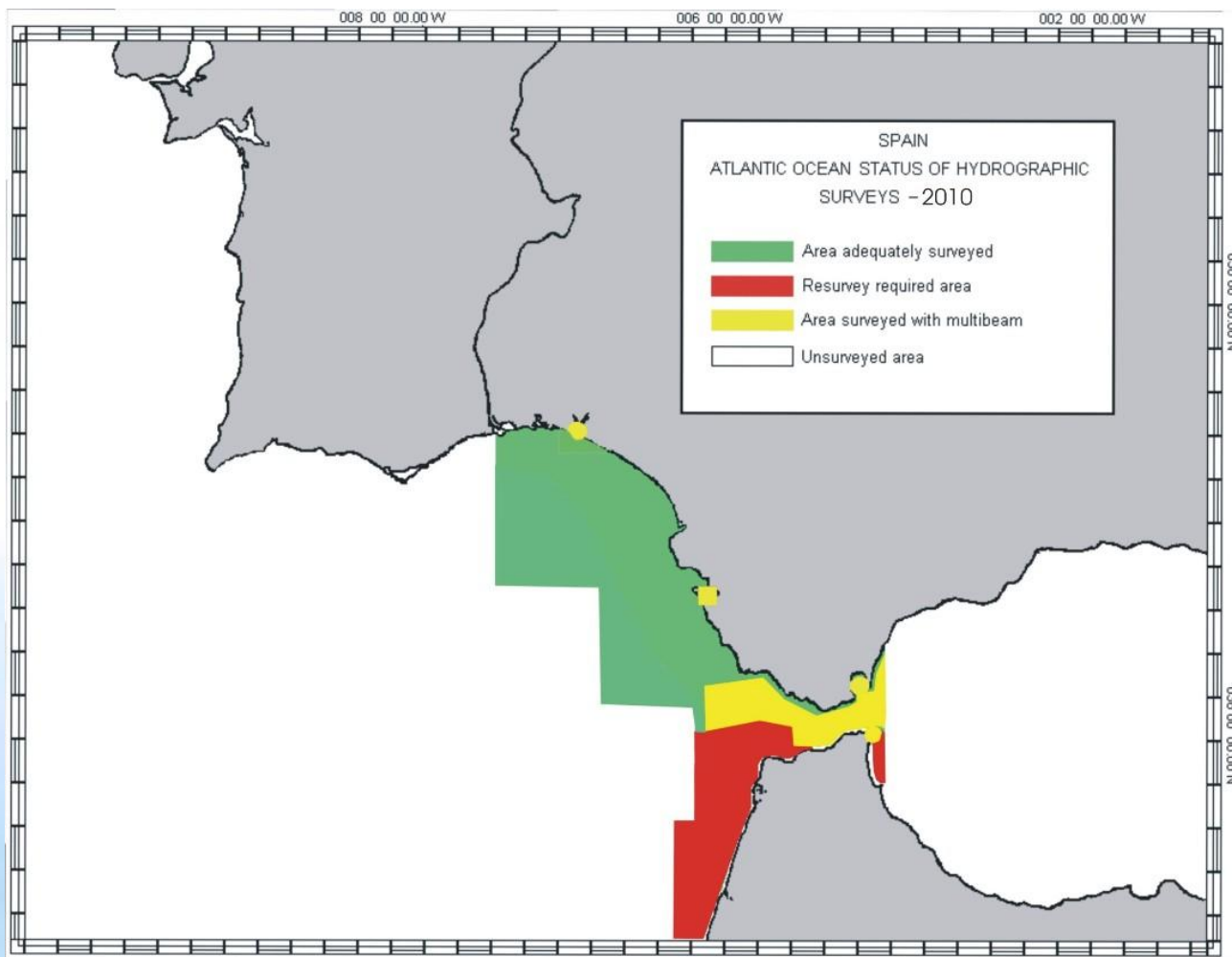
Coverage and quality of bathymetric surveys in N of Iberian Peninsula





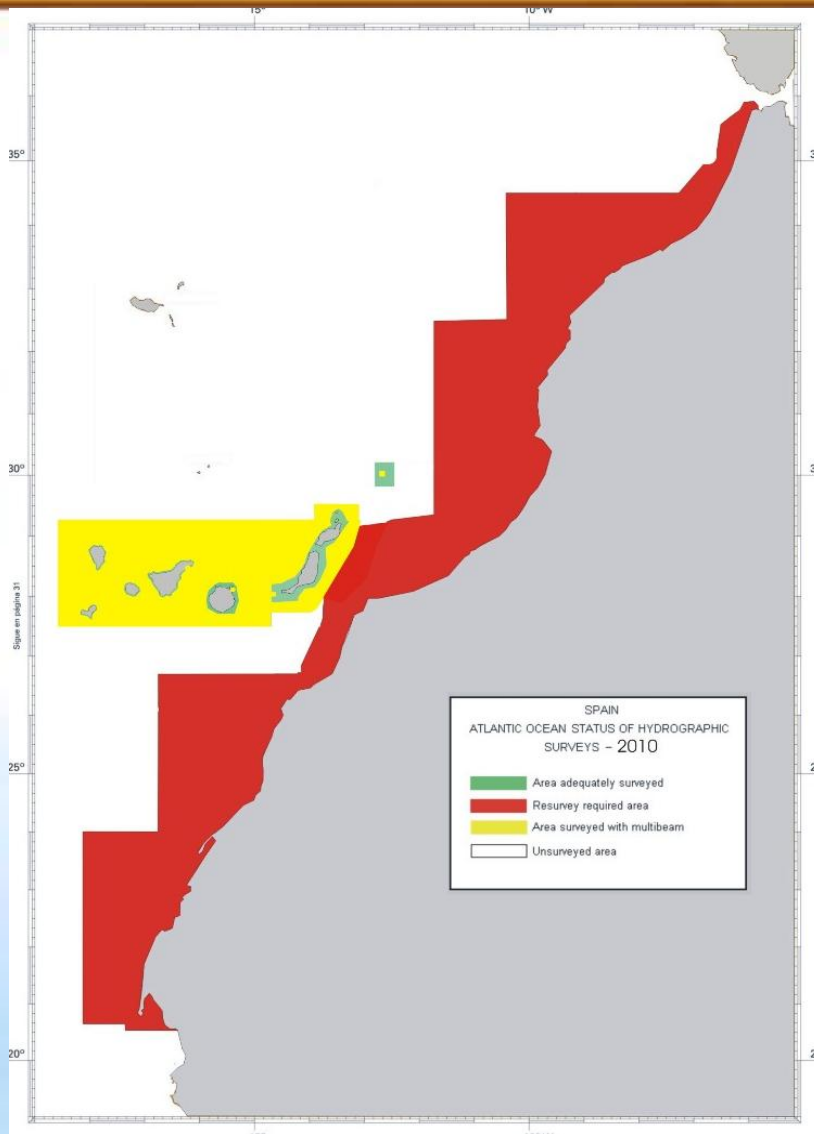
SURVEYS

Coverage and quality of bathymetric surveys in SW of Iberian Peninsula





SURVEYS



Coverage and quality of
bathymetric surveys in
Canary islands and
African Coast





SURVEYS: new techs and ships

- 2 Malaspina class were fitted (2004 and 2007) with **multibeam echosounders for deep waters** (5000 m), but currently the 30 meters depth contour line has been established as the starting line for multibeam echosounder surveying.
- One of them use a **long-range high-resolution synthetic aperture sonarSide Scan Sonar.**
- There are currently two projects under development to build **newer vessels**; one of them is to replace the medium size survey vessels, and the other is to build a oceanographic / hydrographic vessel which is being developed and it is scheduled for delivery for 2016.



Malaspina class



Antares class



LHT



BIO





NEW CHARTS AND UPDATES

Up to date, Spain has produced 61 ENC's covering the area of this commission (out of an overall figure of 115 ENC's produced), which can be classified according to their navigational purpose as follows:

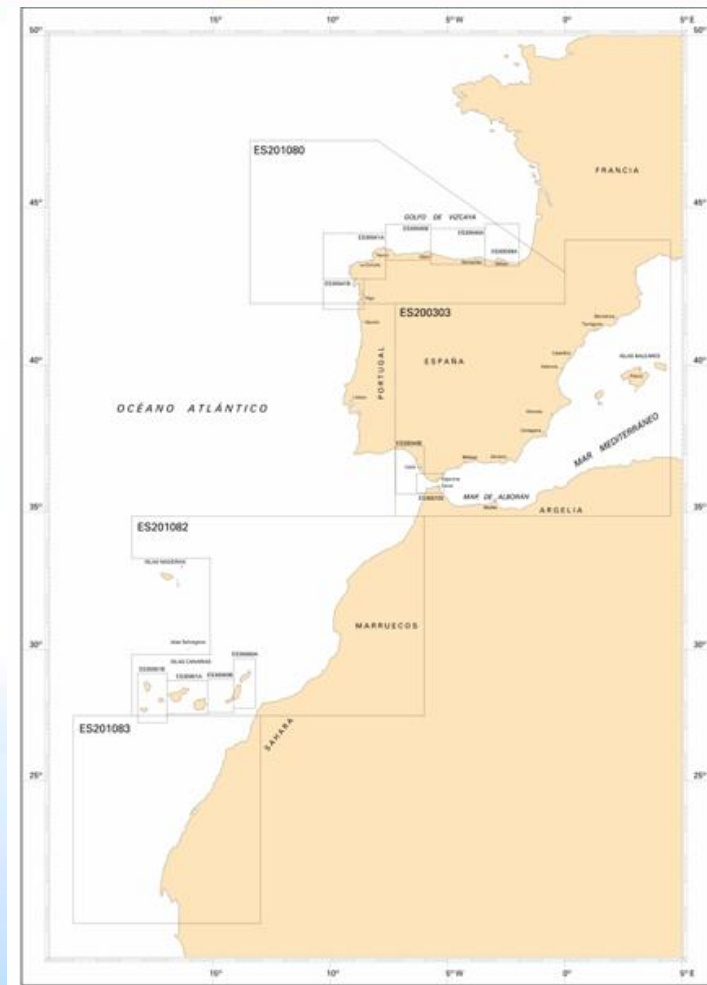
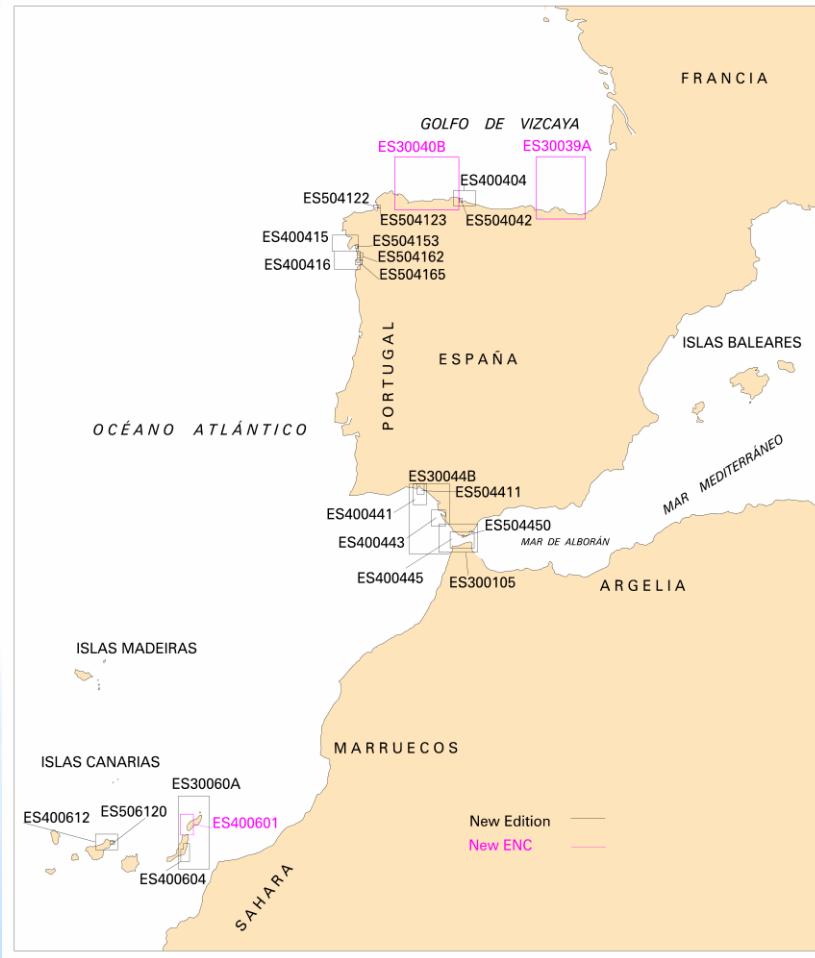
Purpose 2	Purpose 3	Purpose 4	Purpose 5
General	Coastal	Approaches	Harbour
4	11	19	27

Since the last conference and within the area of this commission, 3 new ENC's, 20 new editions and 377 updates have been produced.





NEW CHARTS AND UPDATES

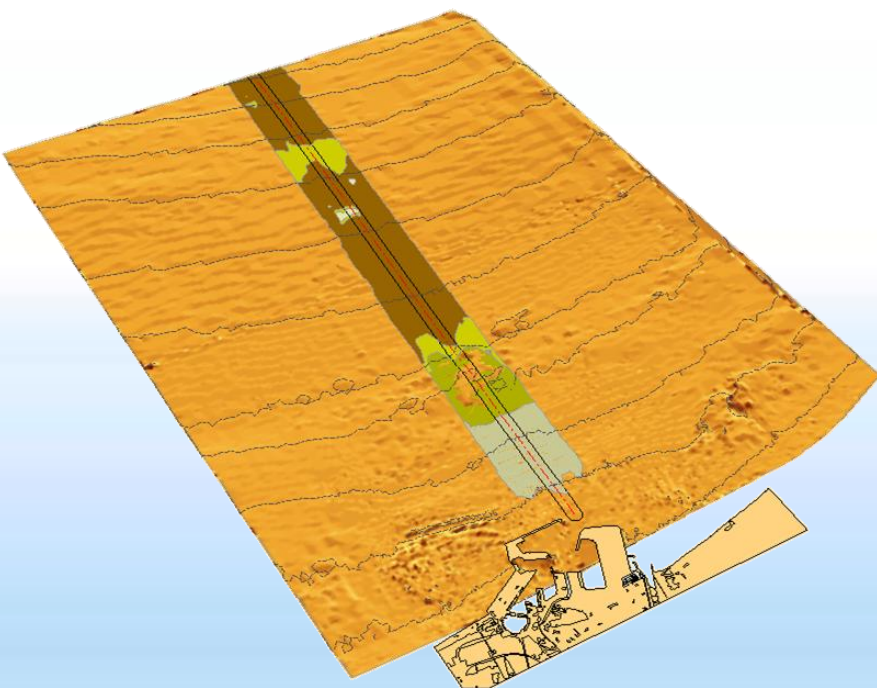


New ENC Cells and full coverage at small and medium scale (purposes 2 and 3)



NEW CHARTS AND UPDATES

- Since the last Meeting, INT charts published covering areas of the Commission are 9.
- Since the last Meeting, national paper charts published covering areas of the Commission are 19.

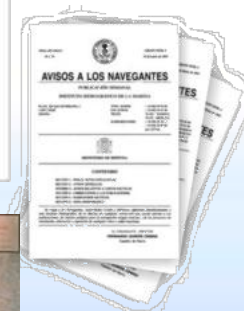
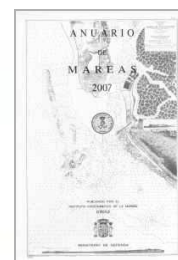




NEW PUBLICATIONS AND UPDATES

Updates I

- International Regulations for the Preventing Collisions at Sea COLREGs (1972), 2009 edition.
- List of lights and fog signals, part I, 2010 edition. Coasts of Spain and Portugal on the Atlantic Ocean, Africa West Coast from Cabo Espartel to Cabo Verde including Dakar, Islas Azores, Madeira, Selvagens, Canarias and Cabo Verde.
- List of lights and fog signals, part II, 2010 edition. Gibraltar Strait, Balearic Islands and Mediterranean coasts of Spain, Morocco and Algeria.

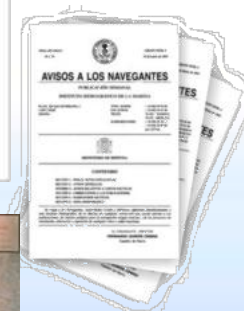




NEW PUBLICATIONS AND UPDATES

Updates II

- Sailing Directions no 3 volume I, 2010 edition. Mediterranean Coasts, including: N & S Coasts of the Straits of Gibraltar, and Eastern Coast of Spain from Punta Europa to the French border.
- Supplement no 1 to Sailing Directions no 2 volume I, 2009 edition. Costa NW Coast of Spain, from Estaca de Bares to Río Miño
- Supplement no 1 to Sailing Directions no 4, 2009 edition. W Coast of Africa, from cabo Espartel to cabo Verde, including Dakar, Islas Açores, Madeira, Selvagens, Canarias and Cabo Verde.





MSI

Co-ordinator: SASEMAR (Spanish National Agency for Maritime Search and Rescue Operations, Ministry of Public Works) is the national Co-ordinator for coastal and local radio navigational warnings. The National Salvage Co-ordination Centre (CNCS) is located in Madrid.

Means: NAVTEX Stations, MF and VHF Stations.

Spanish NAVTEX stations broadcasting in the NAVAREA II region are the following: La Coruña, Tarifa and Las Palmas. They broadcast in English and Spanish over 518 and 490 KHz frequencies respectively.





MSI

Any information considered by IHM as relevant for vessels in transit to the NAVAREA II Region and French coastal waters, is submitted via FAX to SHOM (NAVAREA II Zone Co-ordinator);

Spain is the NAVAREA III Coordinator

SAR Organisation

Co-ordinator: SASEMAR through its National Centre (CNCS) and its Area, Regional and Local Centres.

Means: NAVTEX stations and communication stations at SASEMAR Centres, as well as coastal MF and VHF stations.





S-55. REGION G

Survey coverage, where:

A = percentage which is adequately surveyed.

B = percentage which requires re-survey at larger scale or to modern standards.

C = percentage which has never been systematically surveyed.

SPAIN	A	B	C
Dephts > 200 mts	94	6	0
Dephts > 200 mts	45	0	55
Canary islands (Spain)			
Dephts > 200 mts	95	5	0
Dephts > 200 mts	44	0	56





S-55. REGION G

Status of nautical charting within the limits of the EEZ

A = percentage covered by INT series, or a paper chart series meeting the standards in M-4.

B = percentage covered by Raster Navigational Charts (RNCs) meeting the standards in S-61.

C = percentage covered by ENC's meeting the standards in S-57.

SPAIN	A	B	C
Doffshore passage/ small	100	0	100
Dlandfall and coastal passage/ medium	100	0	100
Approches and ports/ large	100	0	50
Canary islands (Spain)			
Doffshore passage/ small	100	0	100
Dlandfall and coastal passage/ medium	100	0	100
Approches and ports/ large	100	0	50





S-55. REGION G

NAVIGATIONAL INFORMATION (S-53)

ALL SERVICE: LOCAL WARNINGS, COASTAL WARNINGS, NAVAREA WARNINGS, PORT INFORMATION.

GMDSS IMPLEMENTATION

ALL SERVICE: MASTER PLAN, AREA A1, AREA A2, AREA A3, NAVTEX, SafetyNET





CAPACITY BUILDING

The Spanish Hydrographic Office offers both Level A and Level B IHO/FIG/ICA Hydrography Courses. These courses are 8 month long and are taught in Spanish.

A list with the attendees to these courses follows:

Level A Course:

Period 2010-2011

1 Officer from Argentina and 1 Officer from Honduras

Period 2009-2010

1 Officer from Dominican Republic, 1 Officer from Morocco
and 1 Officer from Tunisia

Period 2008-2009

1 Officer from Argentina and 1 Officer from Uruguay





CAPACITY BUILDING

Level B Course:

Period 2010-2011

1 Chief petty officers Dominican Republic Navy

Period 2008-2009

1 Chief petty officers Dominican Republic Navy

Countries willing to have students attending these courses should contact the Spanish Ministry of Foreign Affairs through their respective Embassies in Spain or Spanish HO.





CAPACITY BUILDING. OFFERS

Spain is open to study all possibilities of cooperation with the CB Coordinator and all countries about Capacity Building:

- Technical assistance (spanish and English) in Spain, and in other countries.
- Hydrographic, cartography and oceanographics courses (accomodation incl.)
- Surveys with vessels or Launches (fitted with multibeam echosounder).
- Cartography assistance and distribution.

Contact with the Spanish Ministry of Foreign Affairs through their respective Embassies in Spain or the Spanish HO.





OCEANOGRAPHIC ACTIVITIES

A database containing tidal data for all ports and harbours in the peninsula and islands is being produced.

Long-term evolution of tidal parameters is being studied, using data from the network of permanent tide gauges.

Software for current analysis and prediction based on data from current meters Doppler Nortek is being developed.

All information regarding bottom quality is being digitised and geo-referenced.





OTHERS ACTIVITIES. MDSI PROGRESS

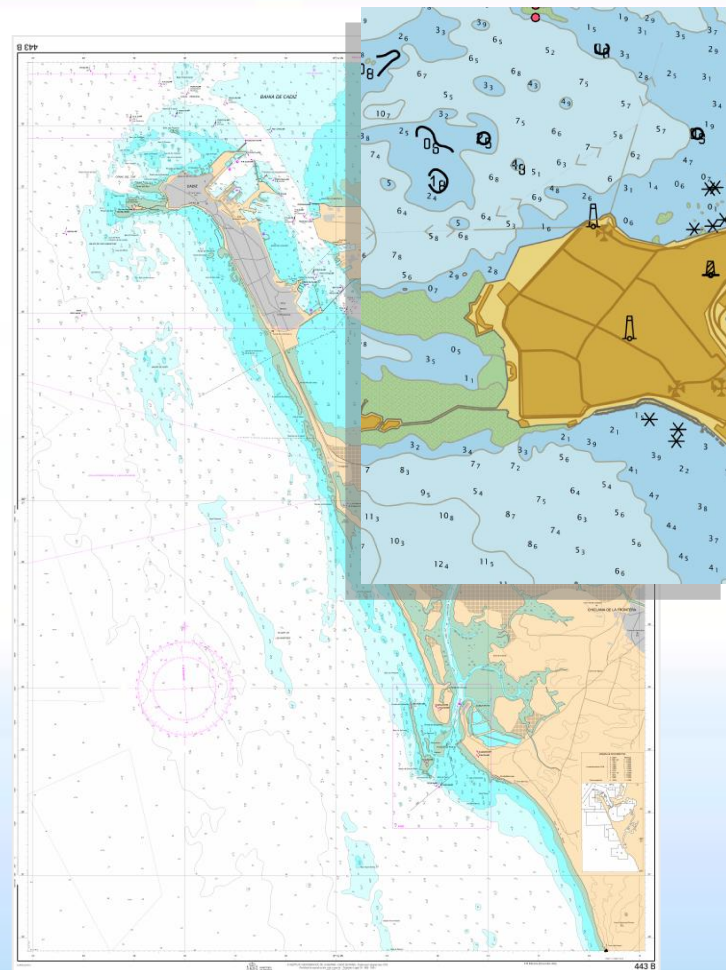
- Within SDI's, this IHM is a participant in the GT-IDEE (Working Group on Infrastructure of Spatial Data of Spain), tasked with the integration via internet of geographic data, metadata, services and information produced in Spain, to help users locate, identify, select and access such resources via the IDEE geoportal (<http://www.idee.es>).
- Also, the Spanish Central Archive of Cartography (Instituto Geográfico Nacional) has been provided with digital information, including the Spanish coastline at scale 1:50000.



CARTOGRAPHIC PRODUCTION



1503 Casa y Tribunal de Contratación de Sevilla



2010 IHM Cádiz



INSTITUTO HIDROGRÁFICO DE LA MARINA



**THANKS FOR YOUR
PATIENT AND ATTENTION
More information in Spanish NR.**

