

EAtHC11-09.1C



National Report 11th EAtHC Meeting

Technical Activities

25th November 2010

(...) Develop activities related to marine sciences and technologies ...



Environmental Support to Naval Operations

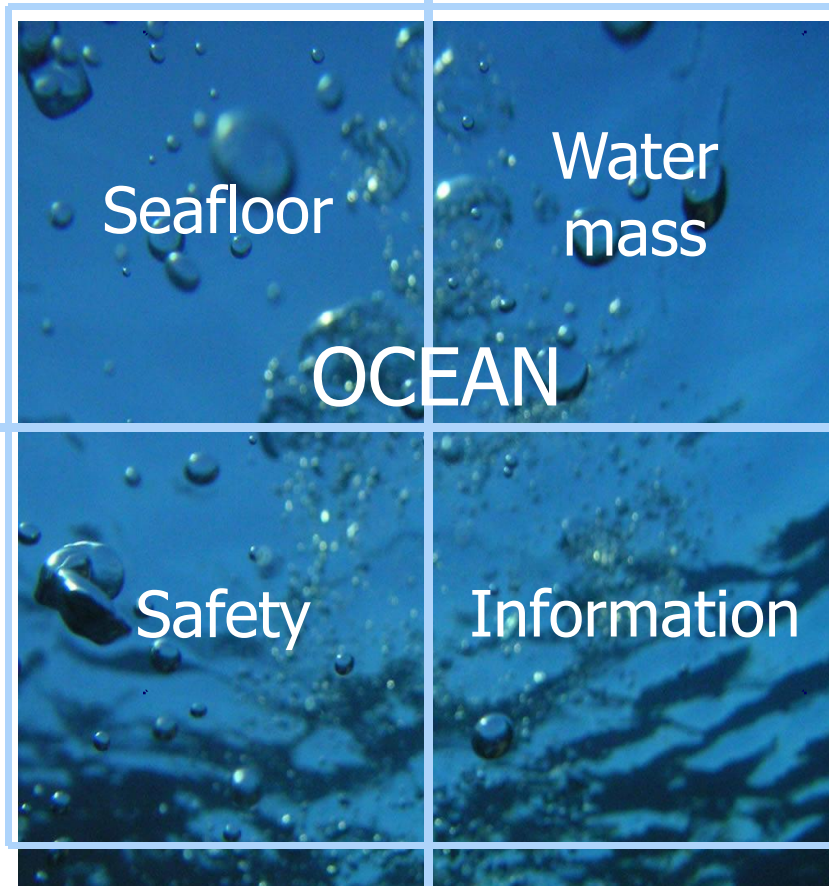
Public Service

R&D

National & International Cooperation

Provision of Services

Hydrography
Marine Geology



Oceanography
Chemistry & Pollution

Navigation

Technical and
Scientific Data

Physical Oceanography, Chemistry and Marine Geology

Base Environmental Characterization

Environmental Monitoring

Operational Forecast

Applied scientific Research



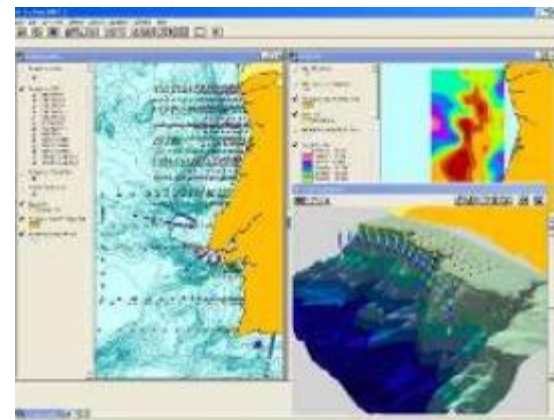
Data Centre

GIS Support to:

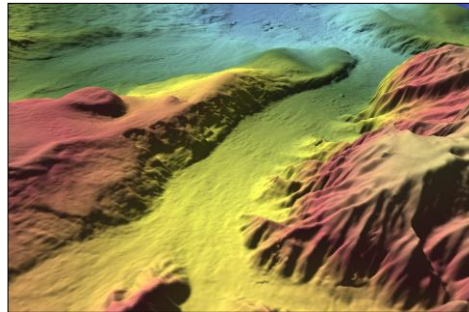
- R&D activities
- Naval operations

Technical and scientific
data bases

IDAMAR

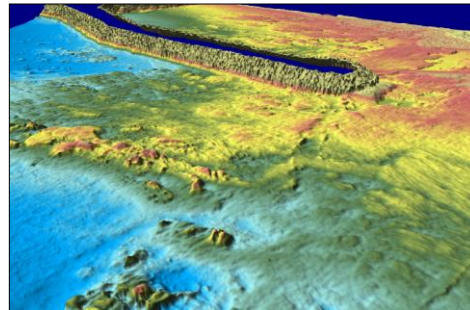


Hydrographic Surveys – Multibeam systems



Deep waters (2 systems) > 200m

Shallow /medium waters < 2000 m

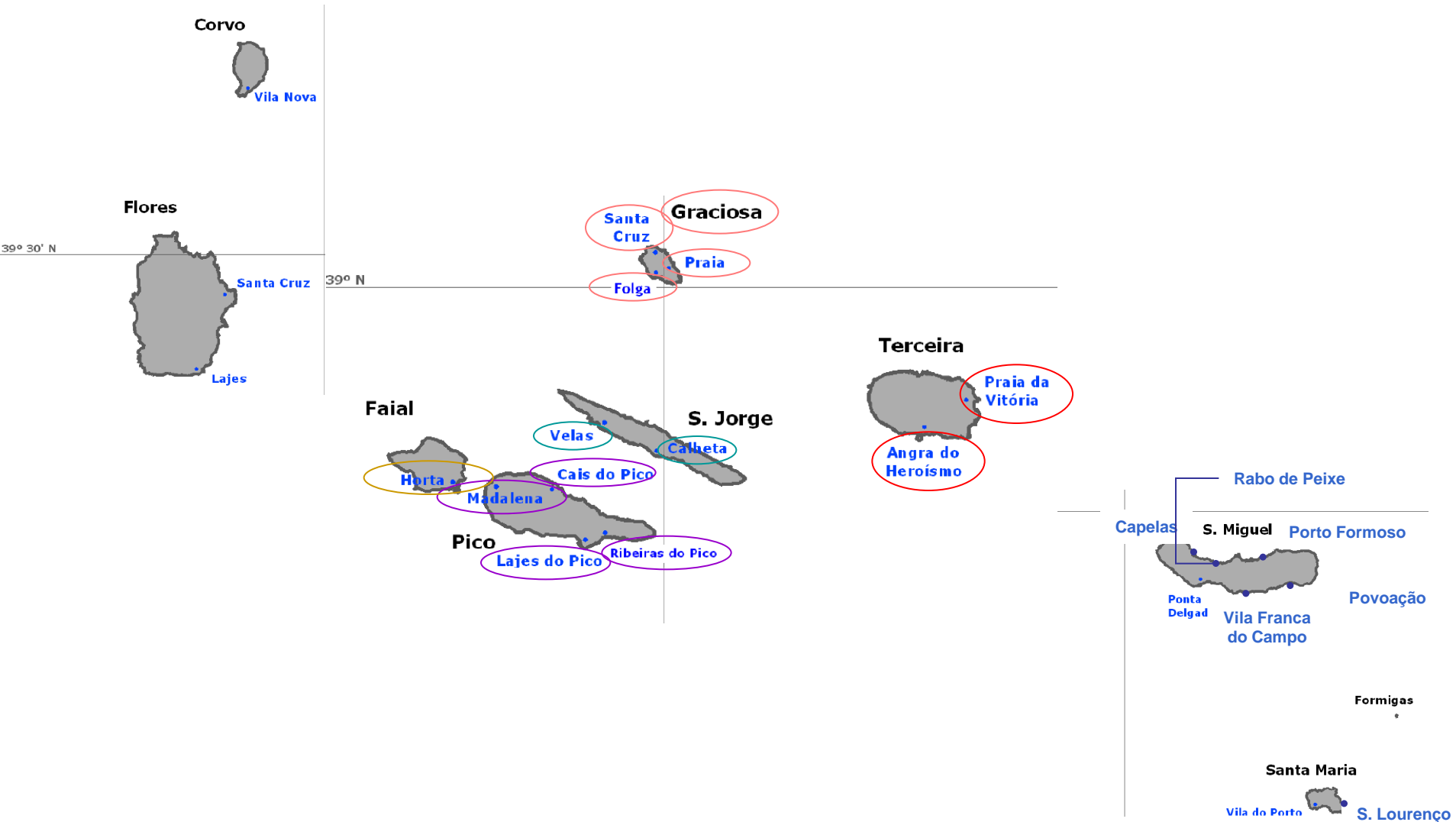


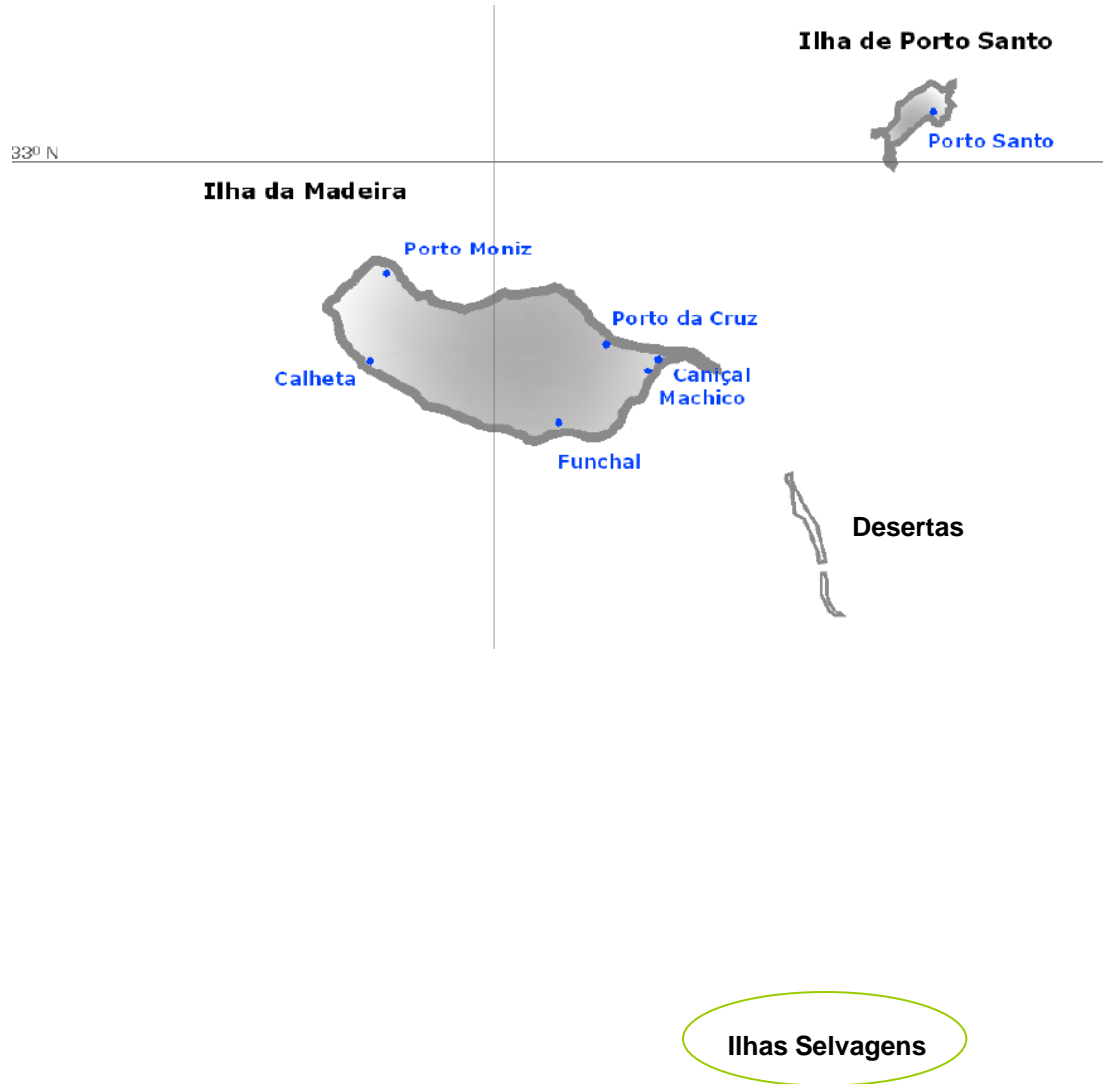
Shallow waters (2 portable systems)
< 120m (high resolution)



Status of Hydrographic Surveys (C-55) (update 2010)

		A	B	C
Portugal (Continental Portugal)	depths < 200 m	100	0	0
	depths > 200 m	99 (98)	0	1 (2)
Portugal (Madeira Archipelago)	depths < 200 m	65 (62)	0	35 (38)
	depths > 200 m	66	1	33
Portugal (Açores Archipelago)	depths < 200 m	54 (53)	46	0 (1)
	depths > 200 m	55 (18)	1	44 (81)





20P9C

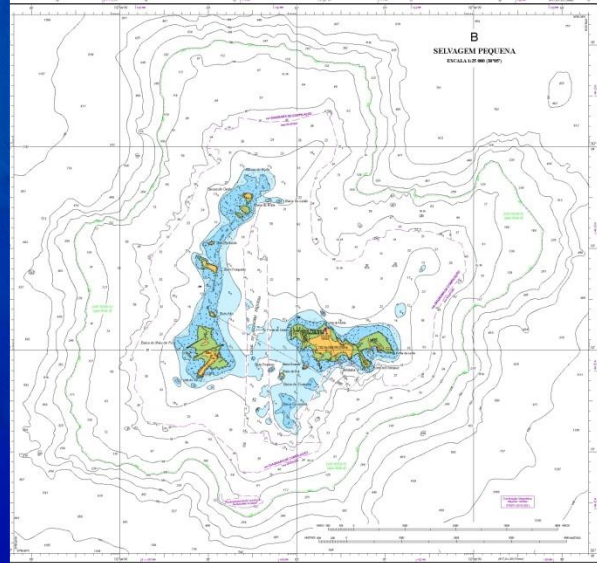
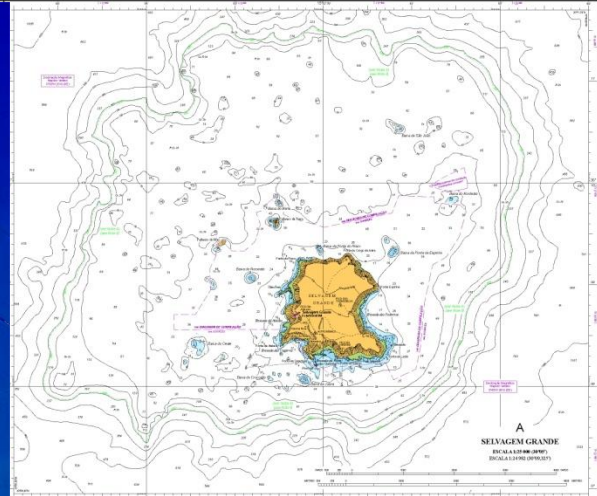
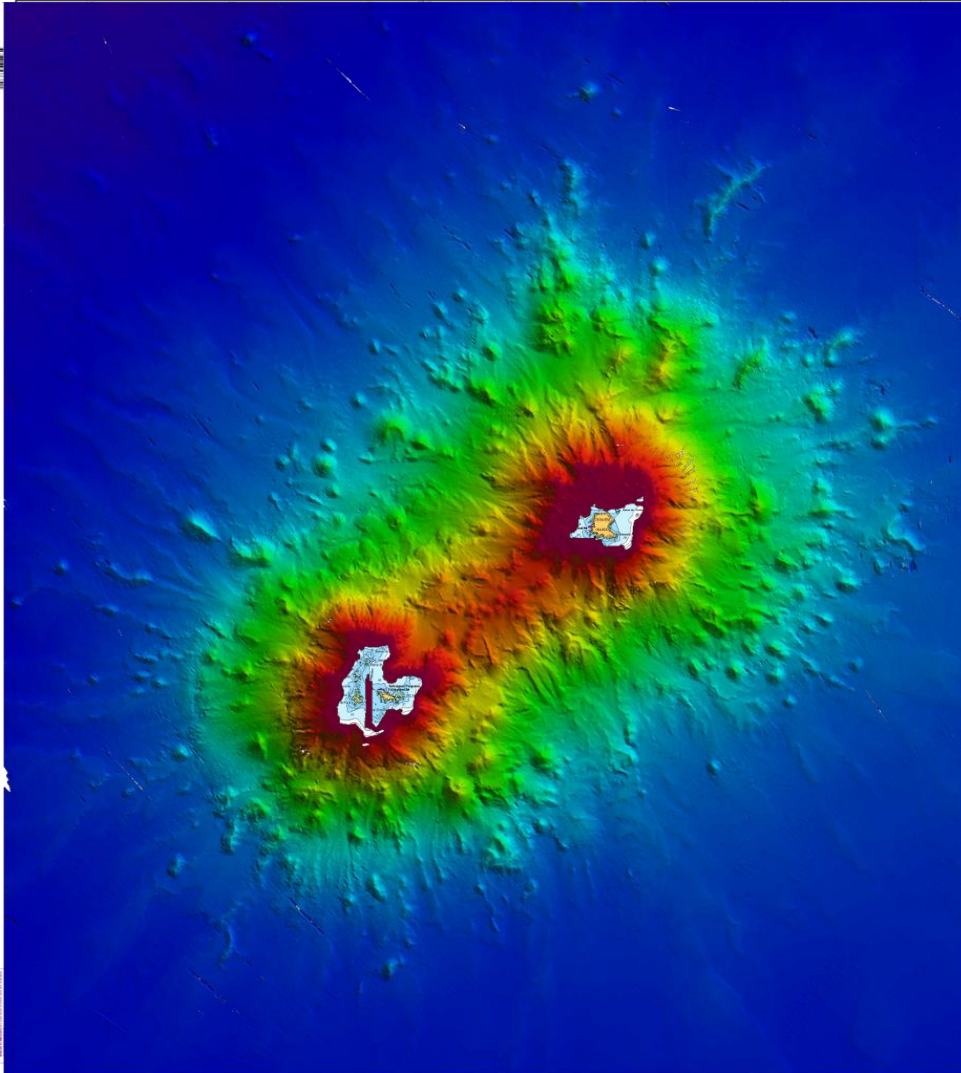
SISTEMA GEODÉSICO
WGS 84

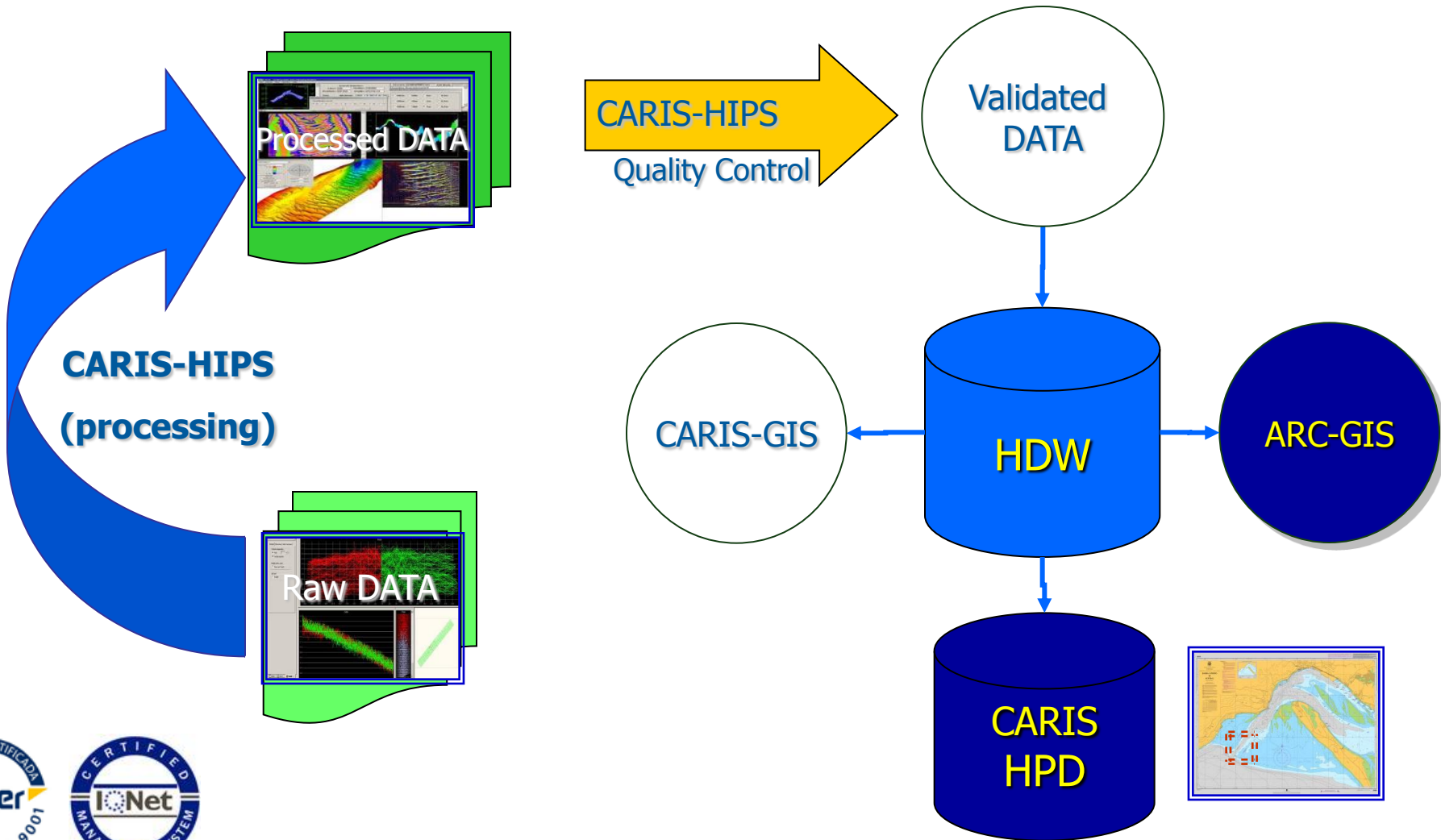
Este sistema geodésico foi adotado para a elaboração deste trabalho, sendo que as coordenadas geográficas são dadas em graus, minutos e segundos decimais.

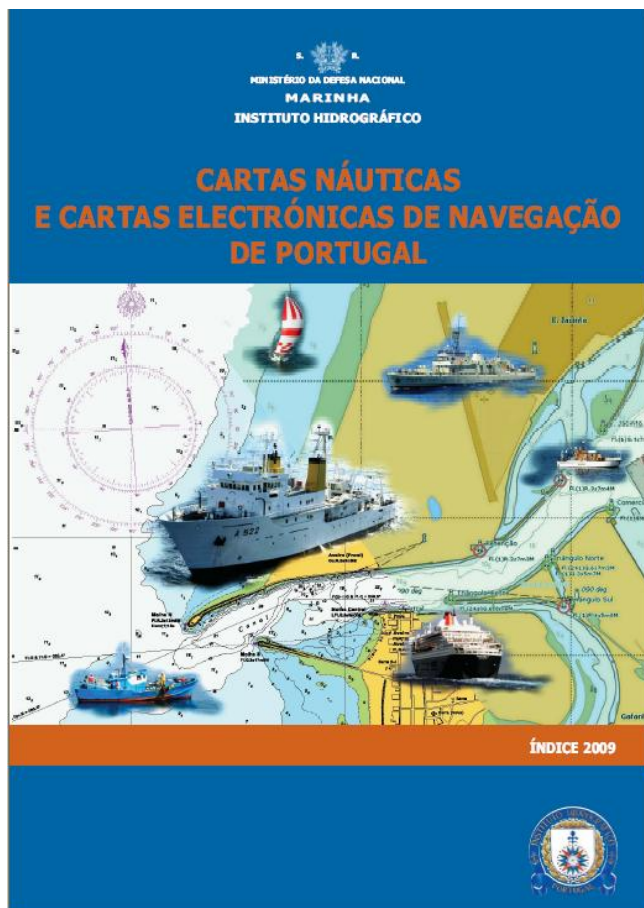
As alturas e profundidades são dadas em metros, sendo que as alturas são dadas em relação ao nível médio das águas do mar e as profundidades em relação ao nível médio das águas do mar.

As profundidades são dadas em metros, sendo que as profundidades são dadas em relação ao nível médio das águas do mar.

Este trabalho foi elaborado com base nos dados coletados durante as operações de hidrografia realizadas no âmbito do projeto de modernização da cartografia náutica da Armada Portuguesa.







NC: 85

Oceanic, costal, approach & harbour series – 55

Leisure series – 12

Fishery series – 6

Instruction series – 1

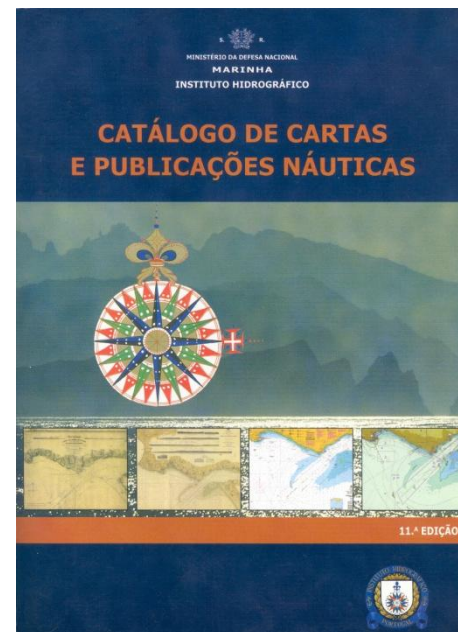
Military series - 2

Bathymetric series – 3

Sedimentological series – 8

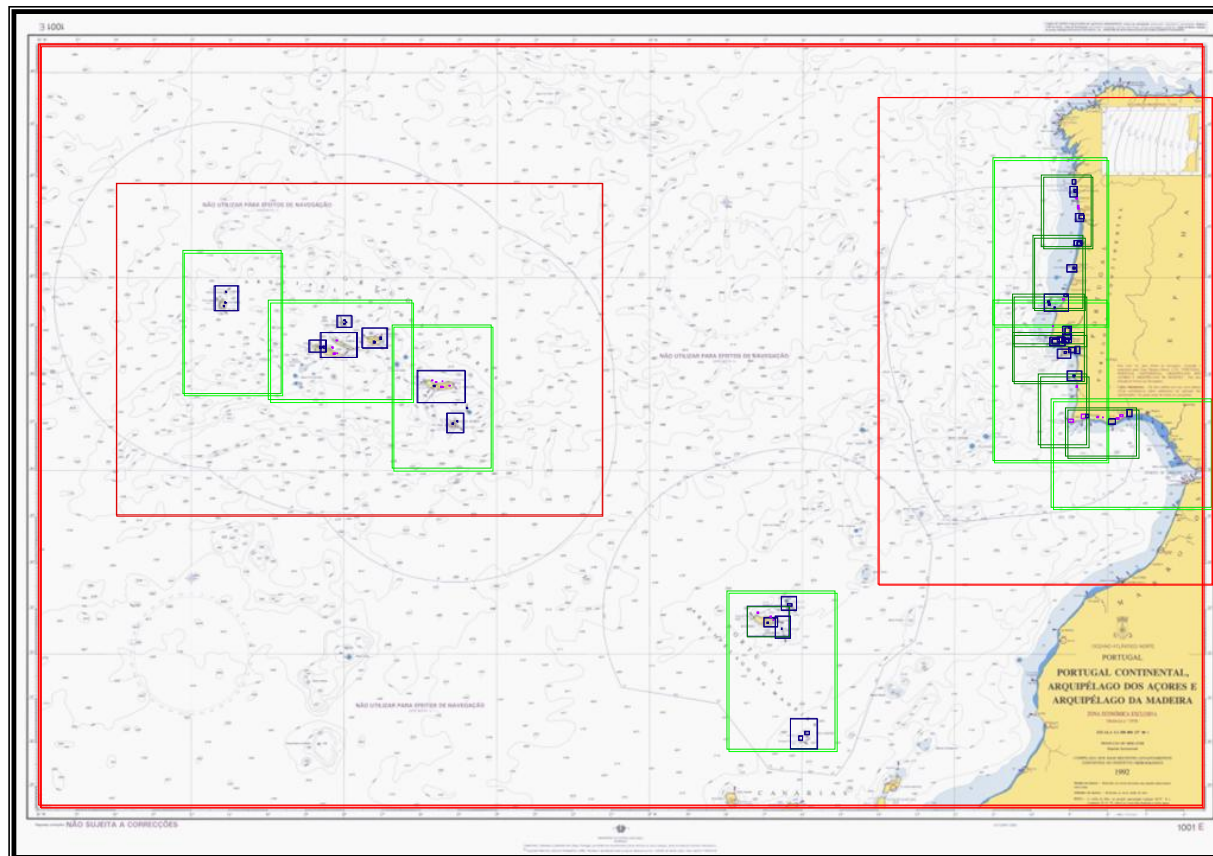
ENC: 76

Available through IC-ENC



National scheme

Medium Scale



Nautical Charts:

- NC Production (New Eds.): 24 (11th Meeting)
26 (10th Meeting)
- Migration to WGS 84 (56%);

Electronic Navigational Charts:

- ENC Production (New Eds.): 41 (11th Meeting)
35 (10th Meeting)

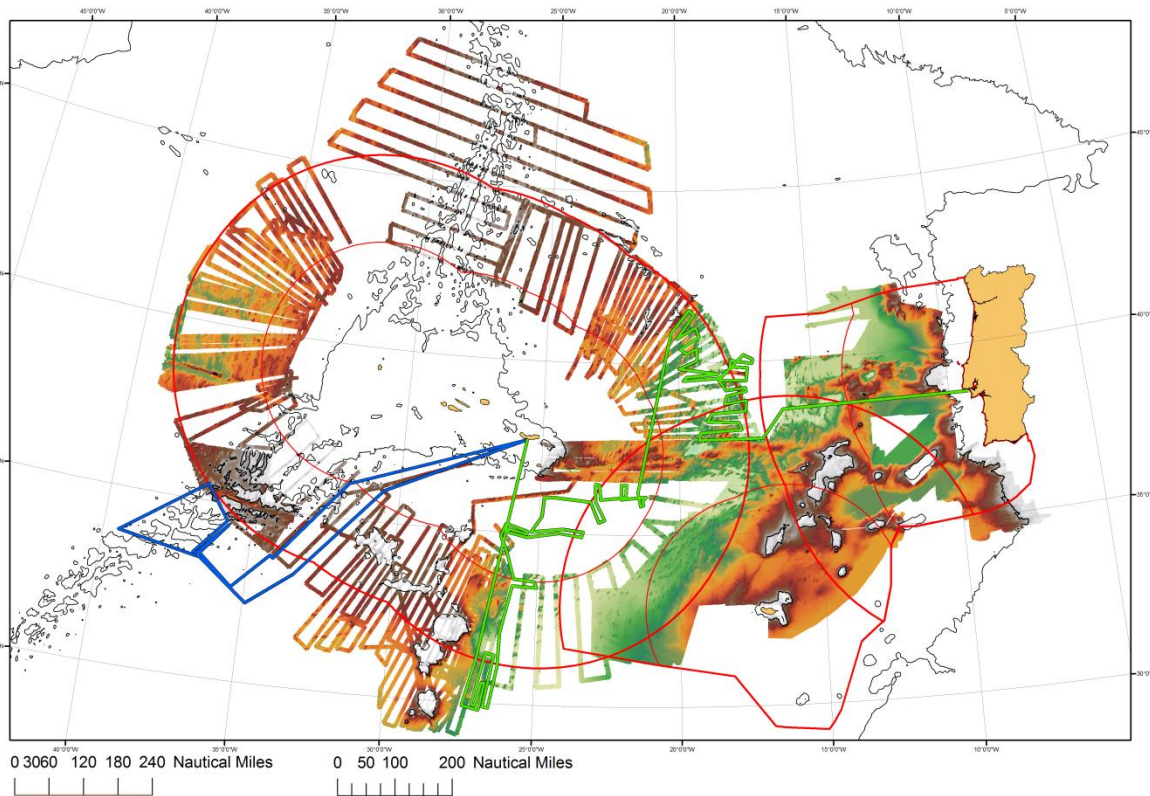
Completion of ENC coverage and NC Folio in 2010.



2010:

78% of PT cartographic folio is available on PoD;

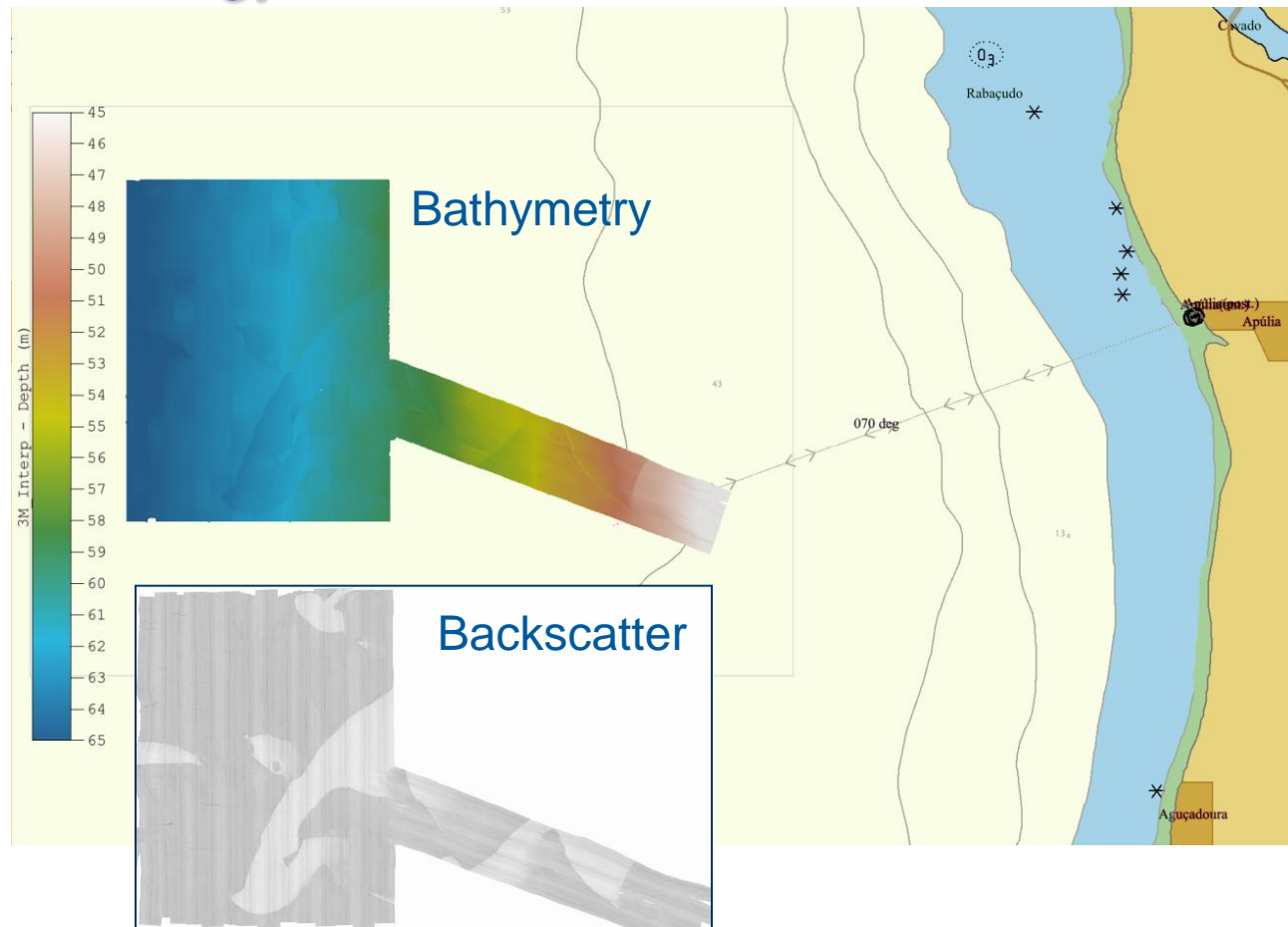
Continental Shelf Extension



Portugal submitted the proposal of extension of the continental shelf to the CLCS on May 2009.

1 000 days of surveys on board Hydrographic ships, **(1,8 Million Km²)**.

Wave energy: base environmental characterization

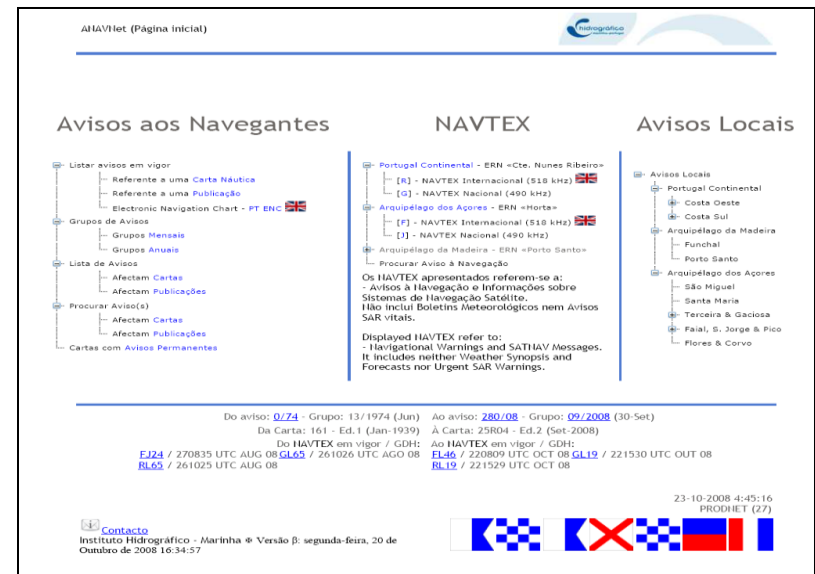
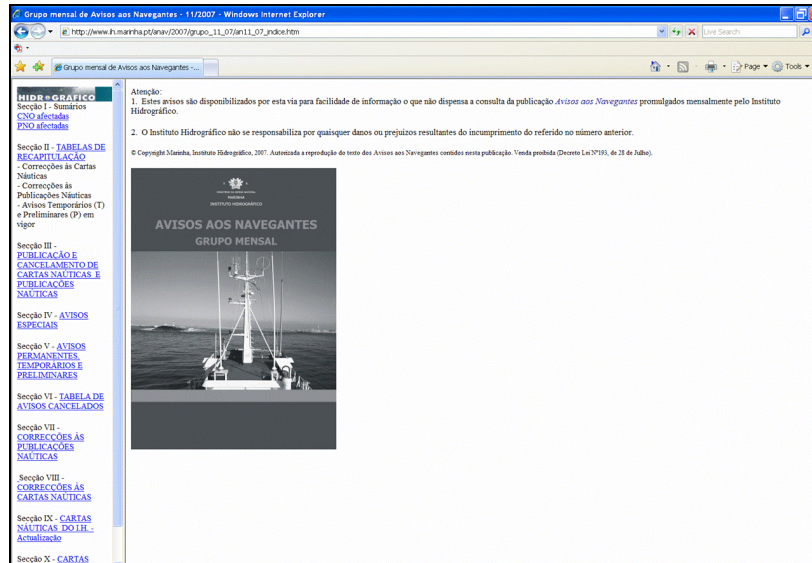


- Nautical Publications;
- Navigation Methods;
- Notices to Mariners;
- Coastal Navigational Warnings.



1999 released in IHPT official website **NtM** as a single PDF file;

2007/2008 released in IHPT official website a **NtM** service – the ANAVnet.



School of Hydrography and Oceanography

- Hydrography course (IHO Cat. A);
- Hydrography course (IHO Cat. B).

The courses are taught in Portuguese.

IHPT followed up the cooperation with Cape Verde (framed by Bilateral Agreement);

- ✓ 7 Hydrographic Surveys (2009 - 2010);

(Completion of harbor surveys, initiated 2005)

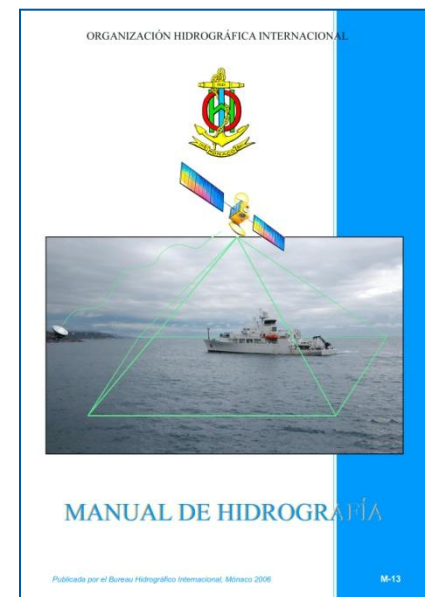
- *NC “Porto Grande” (DEC 2008);*
- *NC “Palmeira and Sta. Maria (Sal) and Sal-rei (Boavista)” (JUN 2009).*

1st Hydrographic Engineering Conference (80 papers & 140 participants)

This event will take place every two years at IHPT.



IHO Manual on Hydrography Portuguese version





- ▶ [Página inicial](#)
- ▶ [Produtos](#)
- ▶ [Cedência Dados](#)
- ▶ [I & D](#)
- ▶ [Serviços](#)
- ▶ [O Instituto](#)
- ▶ [História](#)
- ▶ [Formação](#)
- ▶ [Concursos](#)
- ▶ [Documentação](#)

Pesquisas frequentes

[hidrografia](#) [oceanografia](#)
[informação](#) [lisboa](#)
[download](#) [porto](#) [marinha](#)
[cartografia](#) [maré](#) [dados](#)
[investigação](#) [cartas](#)
[navegação](#) [previsão](#)
[portugal](#) [hidrográfico](#)
[marés](#) [avisos](#) [agitação](#)
[instituto](#) [maritima](#)

júnior

Técnico-Científico

Previsão de Marés

Lisboa

Porto de Lisboa, 23 de Novembro

Dom, 2008-11-23 05:44	1.27	Baixa-mar
Dom, 2008-11-23 12:15	3.39	Preia-mar
Dom, 2008-11-23 18:14	1.12	Baixa-mar
Seg, 2008-11-24 00:42	3.39	Preia-mar
Seg, 2008-11-24 06:33	1.14	Baixa-mar
Seg, 2008-11-24 13:02	3.44	Preia-mar

Hora Legal de **Inverno** (UTC)

- ▶ [Leixões](#)
- ▶ [Aveiro](#)
- ▶ [Sines](#)
- ▶ [Funchal](#)
- ▶ [Ponta Delgada](#)

Bóias Ondógrafo

Leixões

Boia da Leixões, 23 de Novembro

Data: **2008-11-23 12:00**

Altura significativa	1.92	m
Altura máxima	2.99	m
Período médio	5.2	s
Período máximo observado	11.7	s
Direção da ondulação	NNW	
Temperatura da água	13.4	°C

Hora Legal de **Inverno** (UTC)

- ▶ [Sines](#)
- ▶ [Faro](#)
- ▶ [Funchal](#)
- ▶ [Caniçal](#)

Previsão Operacional

20081122 06:00

Atlântico Norte
Atlântico Sul
Portugal Continental
Arquipélago Madeira

Altura significativa (m). Resultados para o Oceano Atlântico obtidos com o modelo WW3 (Wavewatch III).

0 2 4 6 8 10

Dados Espectrais
23.11.2008
[+ Ver Mais](#)

Comparação com Bóias
23.11.2008
[+ Ver Mais](#)

Avisos aos Navegantes

Portugal Continental

Portugal Continental, 23 de Novembro < A >
GA89 / 211338 UTC NOV 08 / Nav.Warning 1960/08
Em Vigor
PORTUGAL-PORTUGAL CONTINENTAL
-COSTA OESTE
EMBARCAÇÃO PESCA AFUNDADA NA POSICAO 38 26.4N/009 03.74W (WGS84), RETIRADA
ANAV 1881/08 CANCELADO
NNNN
Cancel date: 23-Nov-2008

- ▶ [Arquipélago dos Açores](#)
- ▶ [Arquipélago da Madeira](#)

Últimas Cartas Publicadas

Cartas 25R04 e 25R05
30.11.1999
[+ Ler Mais](#)

Novidades

Novo Produto: SICMO
30.11.1999
[+ Ler Mais](#)



hidrográfico

marinha • portugal