



VENEZUELA NATIONAL REPORT

13th MACHC MEETING



Observatorio Naval "Juan Manuel Cagigal" – Caracas

Capitán de Navío LUIS PIBERNAT MORALES
Servicio de Hidrografía y Navegación



UNITS DISTRIBUTION





VENEZUELA AIDS TO NAVIGATION SYSTEM

SEÑAL	EHPF	EHPC	DHN	EHPAM	EHPO	TOTAL
FAROS	21	15	25	55	03	119
BOYAS	06	04	04	18	01	33
RACONES	01	01	04	08	-	14
ENFILACIÓN	-	-	02	-	-	02
TOTALES	28	20	35	81	04	168

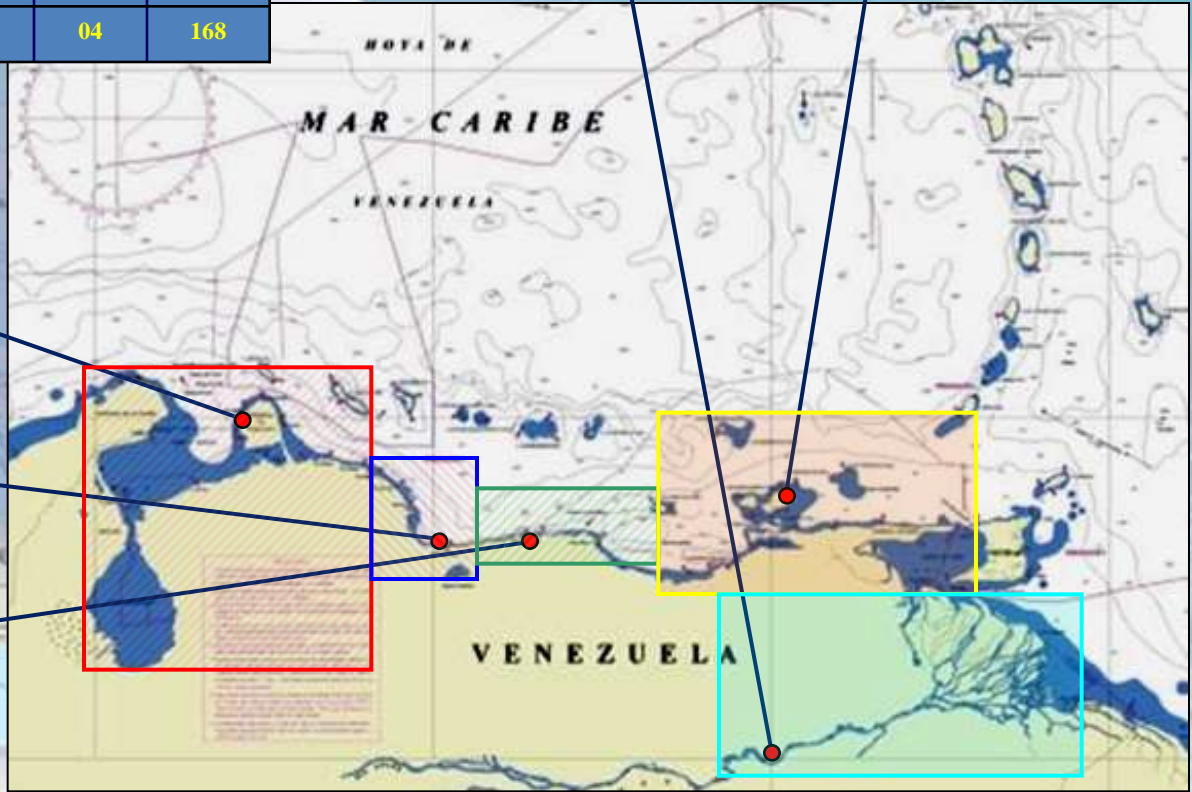
Estación Hidrográfica de Puerto Ordaz (EHPO)

Estación Hidrográfica de Pampatar (EHPAM)

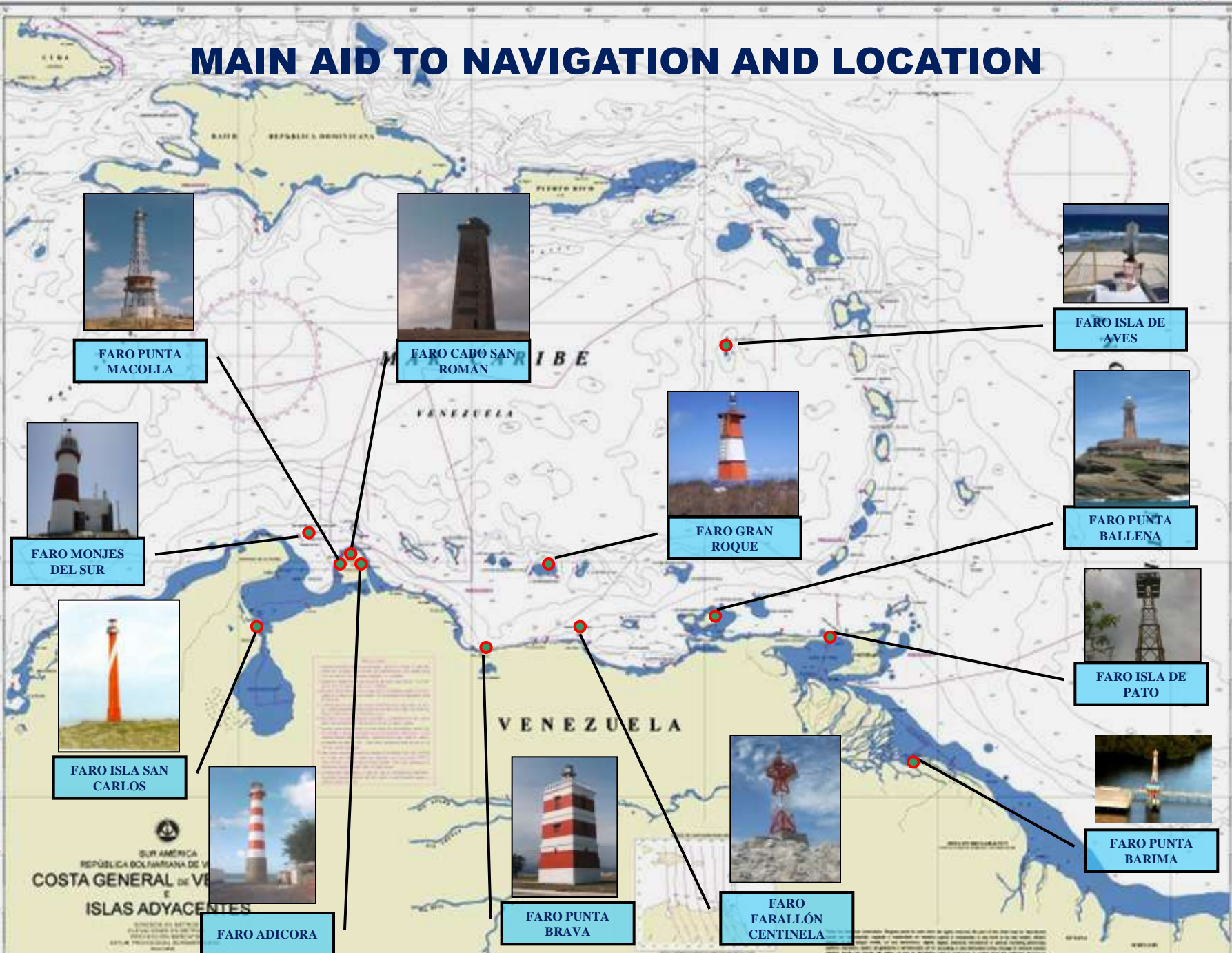
Estación Hidrográfica de Punto Fijo (EHPF)

Estación Hidrográfica de Puerto Cabello (EHPC)

Servicio de Hidrografía y Navegación (DHN)



MAIN AID TO NAVIGATION AND LOCATION



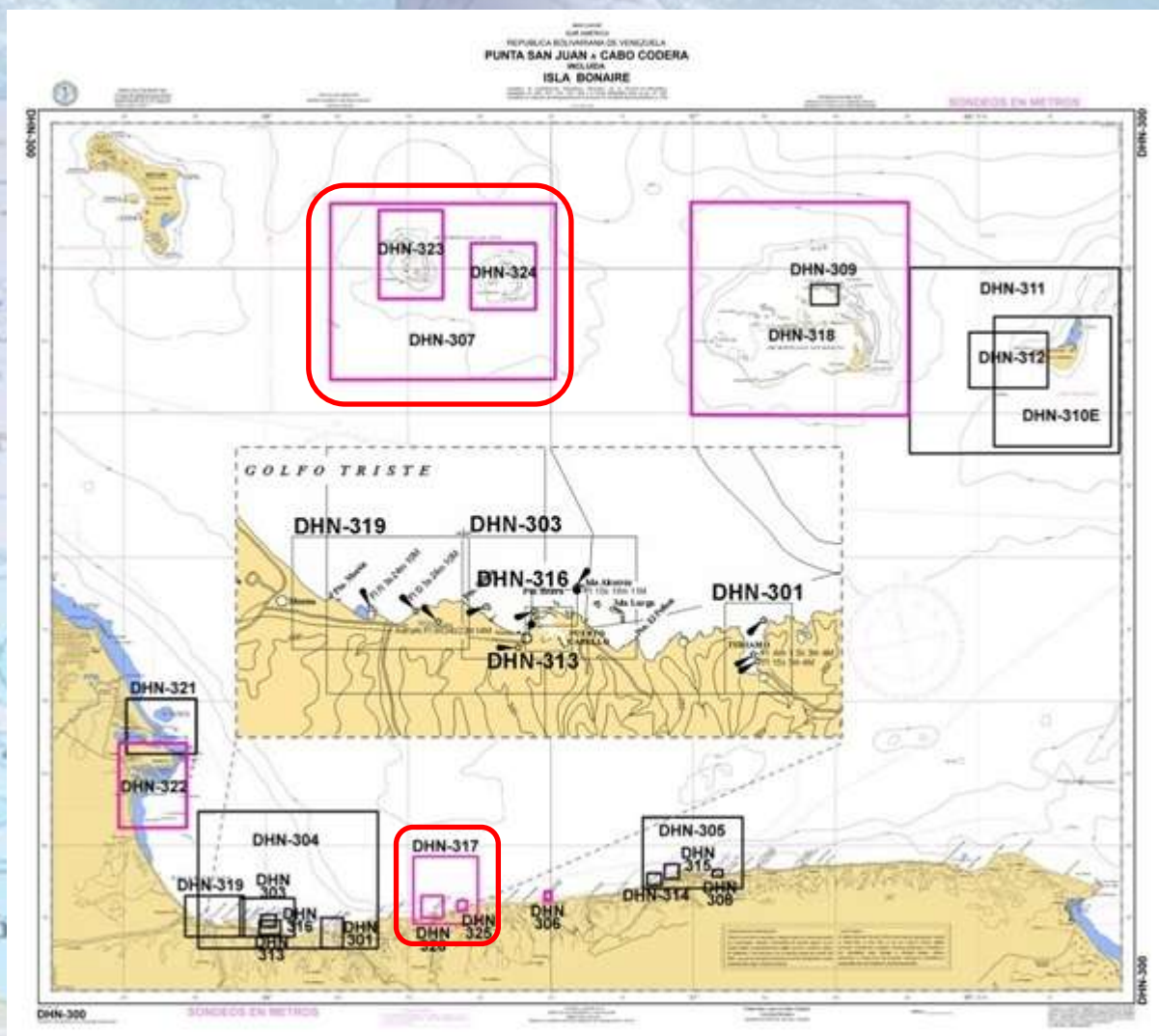
DHIN-002

DHIN-002

DHIN-002



SURVEYS



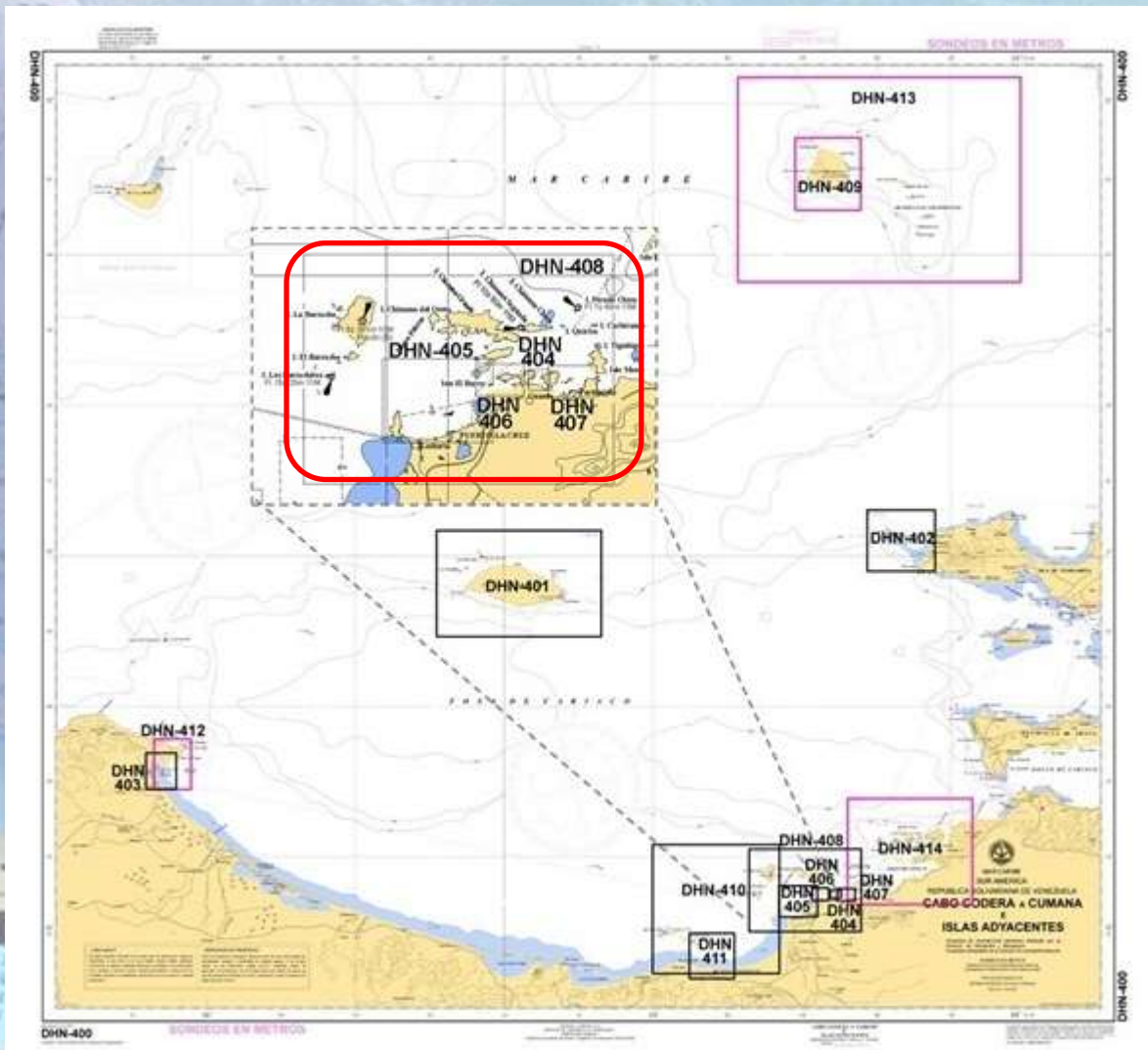
**Hydrographic
Survey in the
Aves Archipelago.**

**Hydro-
Oceanographic
Survey in Choroní.**



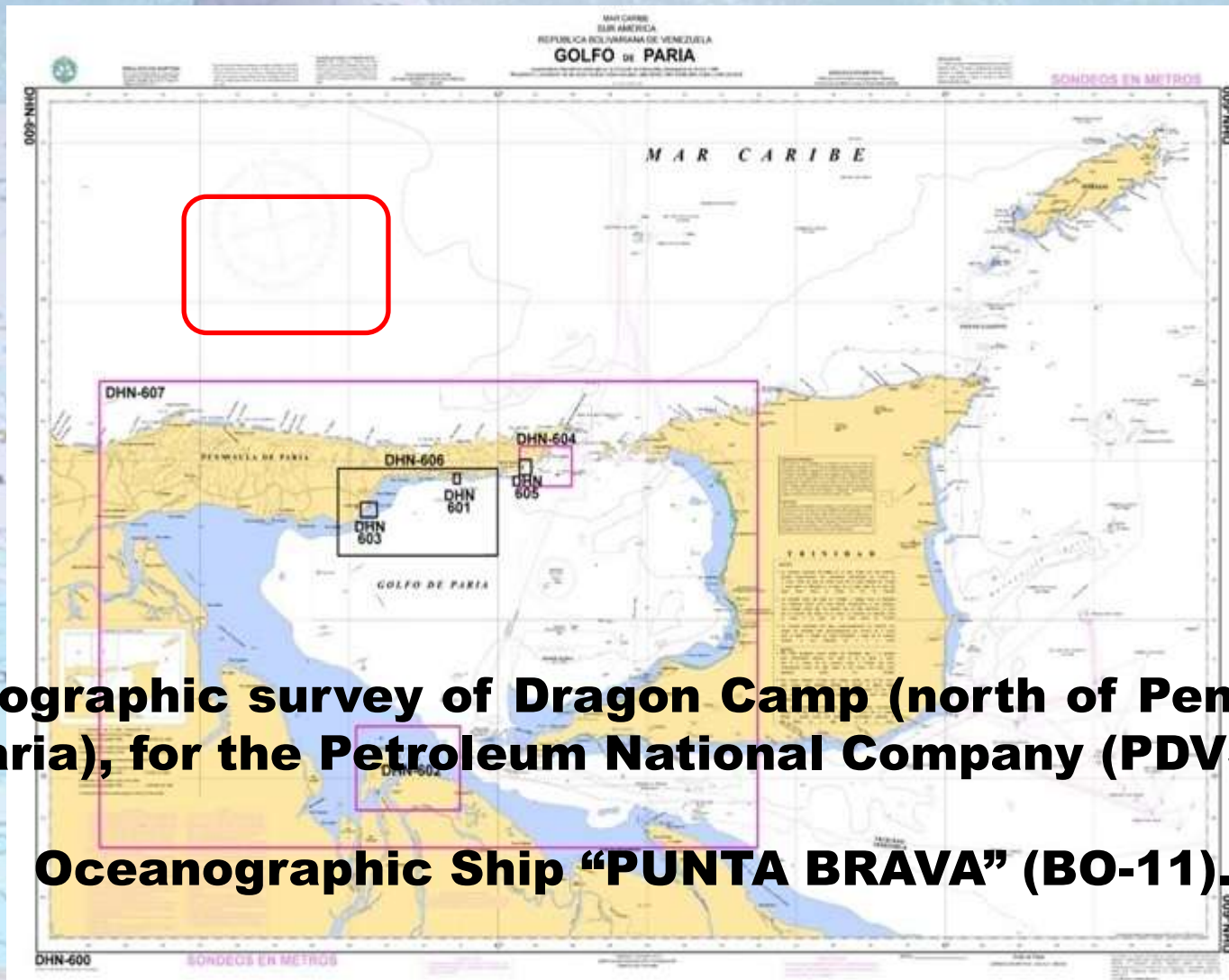
SURVEYS

**Update Nautical Chart
“APROXIMACIÓN
PUERTO LA
CRUZ” (DHN-408).**





SURVEYS

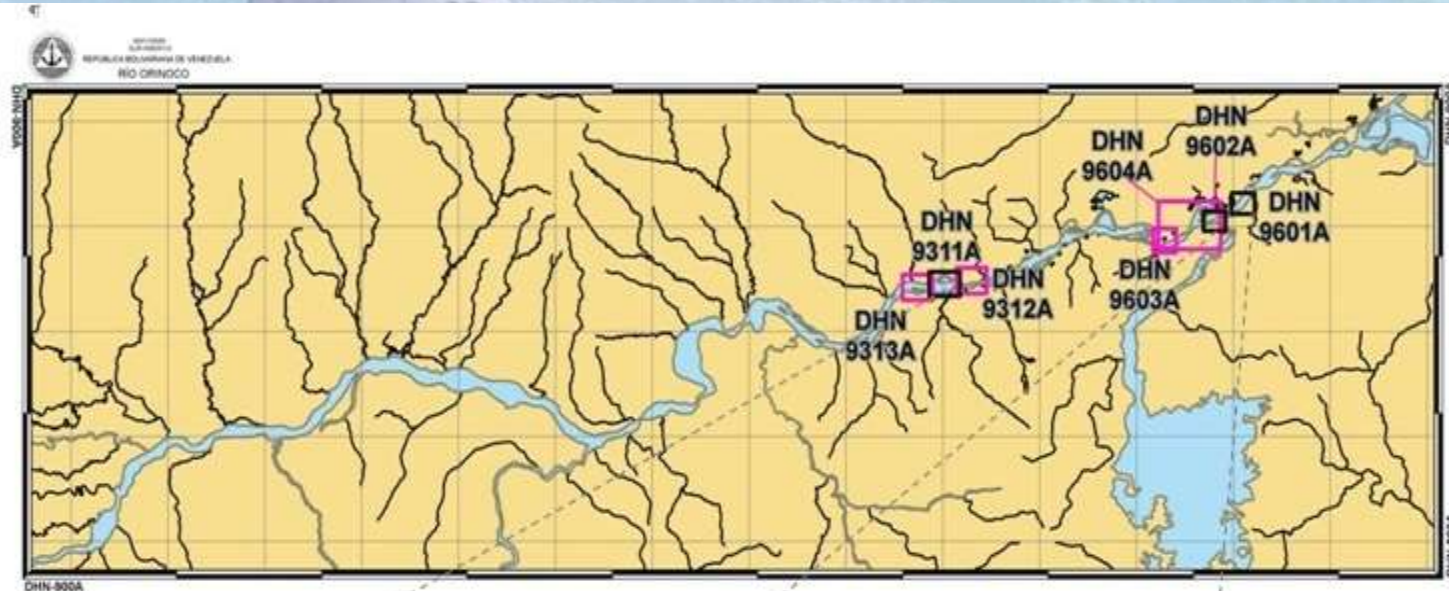


Hydrographic survey of Dragon Camp (north of Peninsula of Paria), for the Petroleum National Company (PDVSA).

Oceanographic Ship "PUNTA BRAVA" (BO-11).

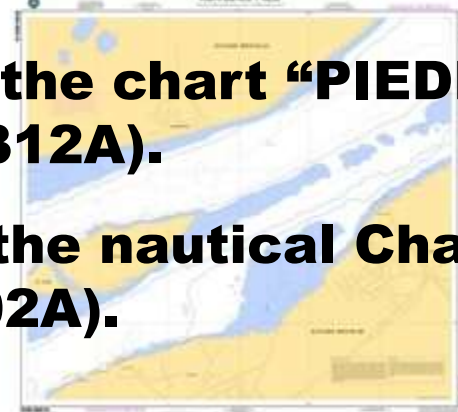
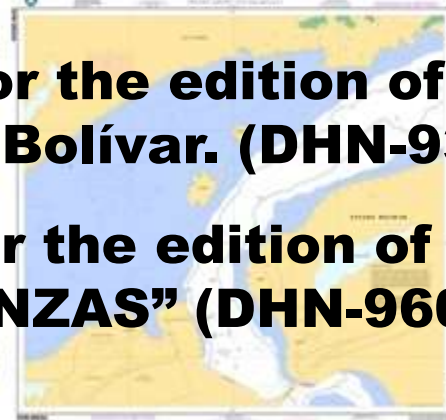
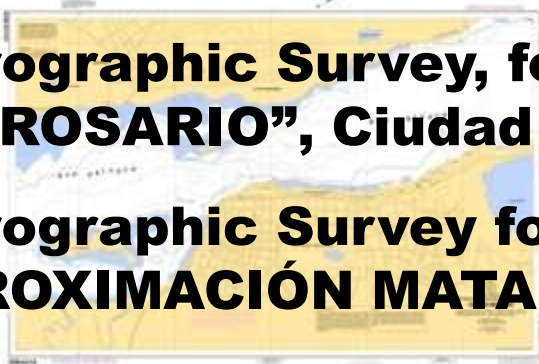


SURVEYS



Hydrographic Survey, for the edition of the chart “PIEDRA DEL ROSARIO”, Ciudad Bolívar. (DHN-9312A).

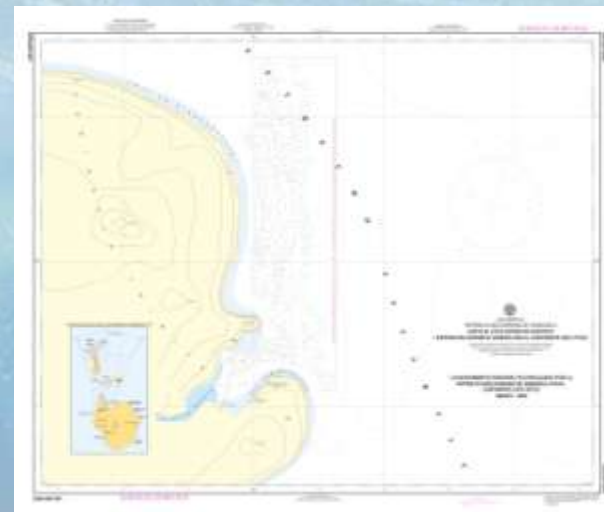
Hydrographic Survey for the edition of the nautical Chart “APROXIMACIÓN MATANZAS” (DHN-9602A).





CHARTING STATUS

- ✓ 93 Paper Charts / 33 ENC (distributed by IC-ENC).
- ✓ 10 INT Charts under responsibility.
- ✓ Special Products by request Venezuela Navy.
- ✓ 02 Antarctic Charts (CHA) / Pending 1 in with Ecuador.



ENC VE400505



Carta en papel DHN-505

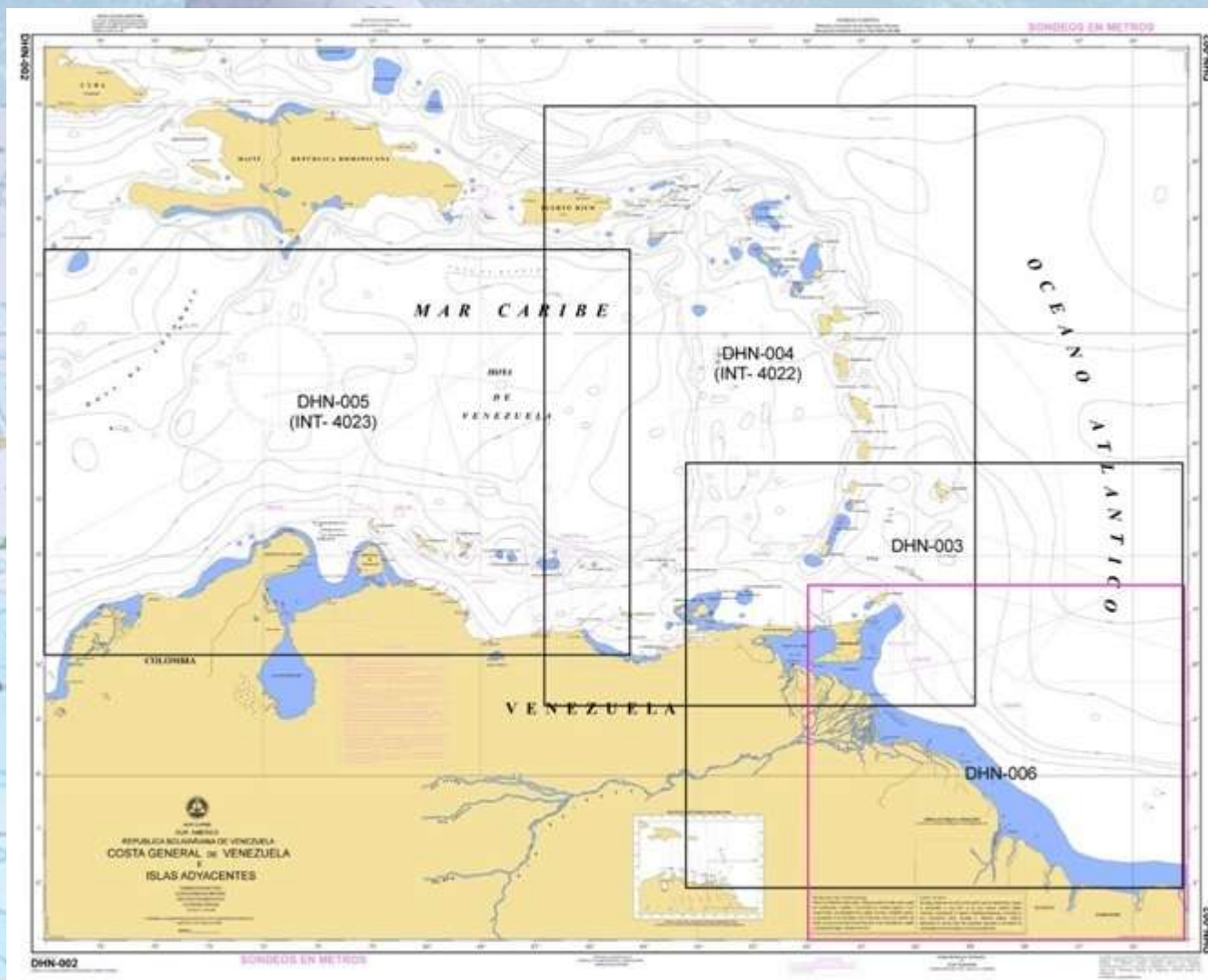




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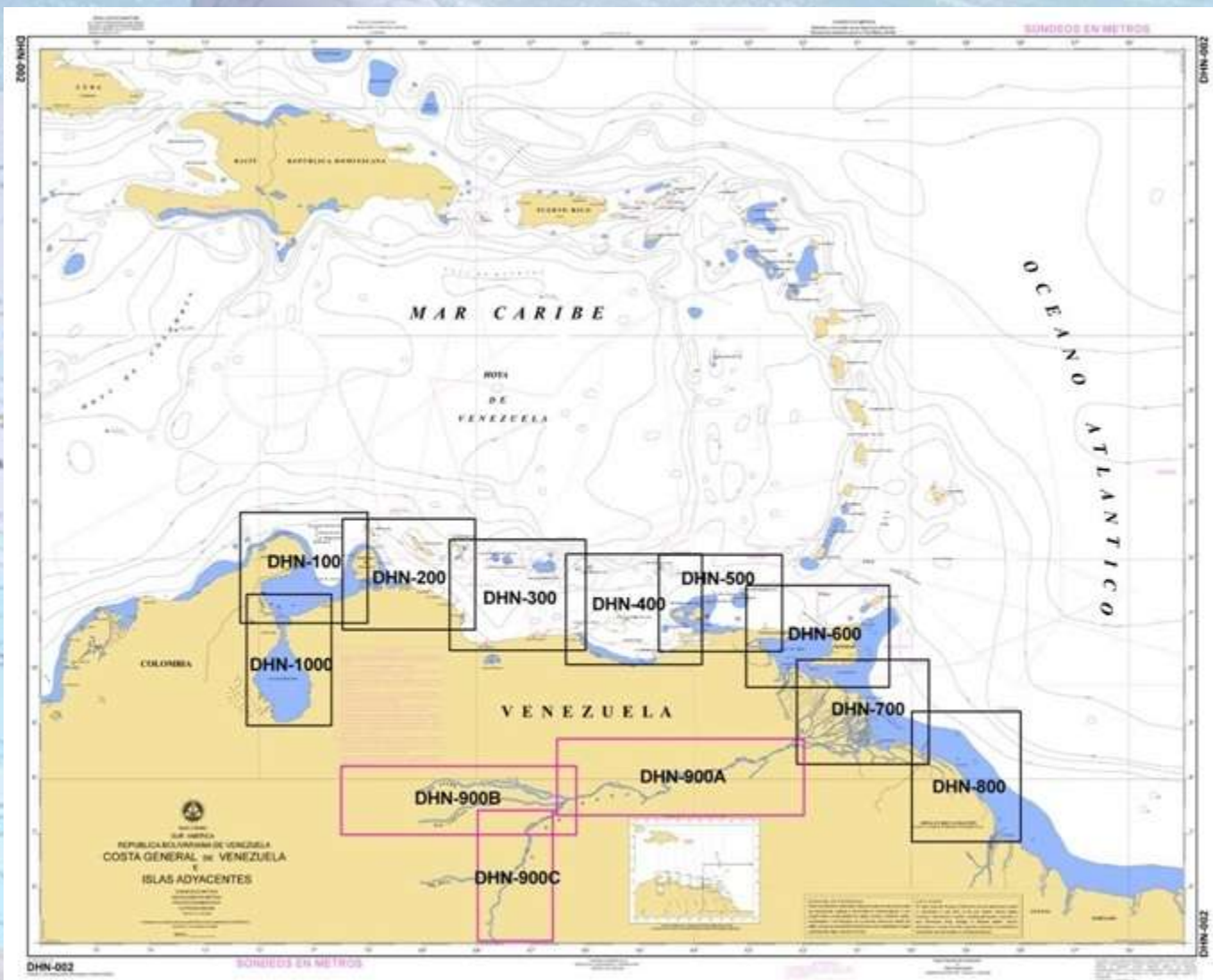


SURVEYS





SURVEYS





NEW CHARTS AND UPDATES

3.1) There were published the following new paper charts:

- DHN-108 “Monjes del Sur”.
- DHN-515 “Punta de Piedras”.
- DHN-608 “Aproximación a Pedernales”.
- DHN-1601 “Portulano de la Ceiba”.
- DHN-9603A “Bauxilum”.

3.2) There were updated the following paper charts:

- DHN-303 “Aproximación a Puerto Cabello” (4th Edition).
- DHN-304 “Punta Morón a Ensenada de Cata” (2nd Edition).
- DHN-404 “Puerto de Guanta” (2nd Edition).
- DHN-405 “Bahía de Pozuelo” (2nd Edition).
- DHN-406 “Bahía de Bergantín” (2nd Edition).
- DHN-407 “Bahía de Pertigalete” (2nd Edition).
- DHN-508 “Golfo de Cariaco” (3rd Edition).
- DHN-1002 “Canal de Maracaibo Boya EM-Isla Zapara” (3rd Edition).
- DHN-1003 “Canal Isla Zapara-Maracaibo” (3rd Edition).



NEW CHARTS AND UPDATES

3.4) ENC cells (in validation process / ready for distribution January13):

VE300100 Golfo de Venezuela (defined M COVR between Venezuela and Colombia on October 2012).

VE300600 Cabo Tres Puntas a Golfo de Paria.

VE400201 Aproximación al Muaco.

VE400304 Punta Morón a Ensenada de Cata.

VE400305 Aproximación al Puerto de La Guaira.

VE400402 Robledal.

VE400505 Canal de Margarita.

VE500202 Portulano de Muaco.

VE500302 Isla de Aves.

VE500308 Puerto de la Guaira.

VE500315 Portulano de Catia la Mar.

VE500501 Pampatar.

VE500502 Bahía de Porlamar.

VE500504 Portulano del Guamache.

VE500511 Portulano de Juan Griego.

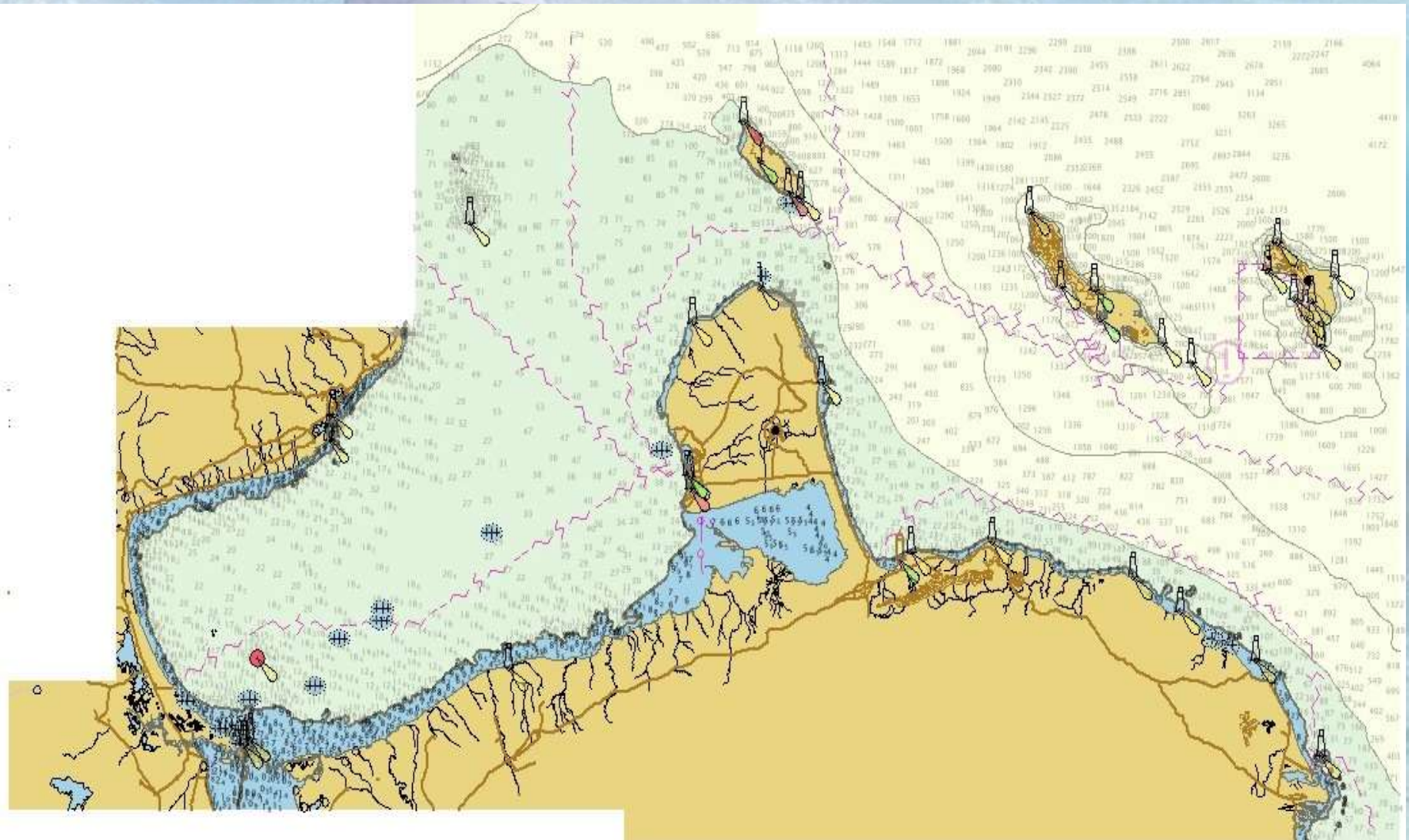
VE500601 Portulano de Macuro.

VE500603 Portulano de Guiria.

VE501301 Maracaibo.



NEW CHARTS AND UPDATES





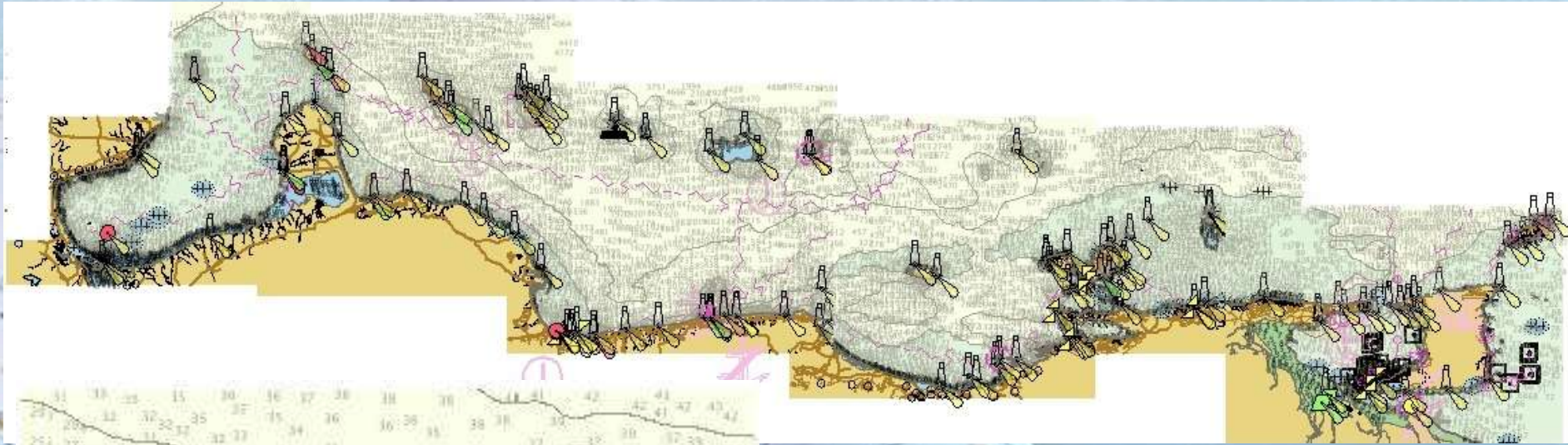
NEW CHARTS AND UPDATES

3.3) ENC cells (in validation process / ready for distribution March13):

- VE300200 Punta Cardón a Tucacas.
- VE300300 Punta San Juan a Cabo Codera.
- VE300400 Cabo Codera a Cumana.
- VE300500 Cumaná a Cabo Tres Puntas.
- VE301000 Lago de Maracaibo.
- VE400102 Aproximación a Bahía de Las Piedras.
- VE400408 Punta Morón a Ensenada De Cata.
- VE400410 Aproximación al Criogénico de José.
- VE401002 Canal de Maracaibo Boya EM-Isla Zapara.
- VE401003 Canal Isla Zapara-Maracaibo.
- VE401004 Canal de Maracaibo Tramo Interior Maracaibo-La Salina.
- VE500104 Portulano Bahía de Amuay.
- VE500105 Portulano de las Piedras.
- VE500106 Portulano de Punta Cardón.
- VE500405 Bahía de Pozuelo.
- VE500406 Bahía de Bergantín.
- VE500407 Bahía de Pertigalete.
- VE500411 Portulano Criogénico de José.
- VE501302 Portulano de Puerto Miranda.
- VE501401 Portulano de Bajo Grande.
- VE501402 Portulano de la Salina.

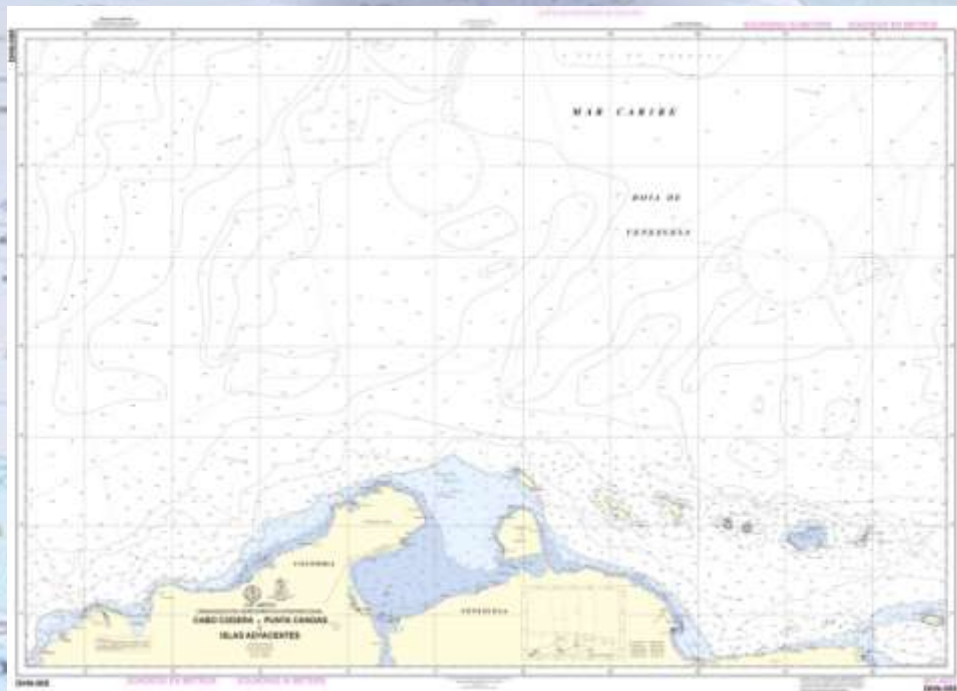


NEW CHARTS AND UPDATES

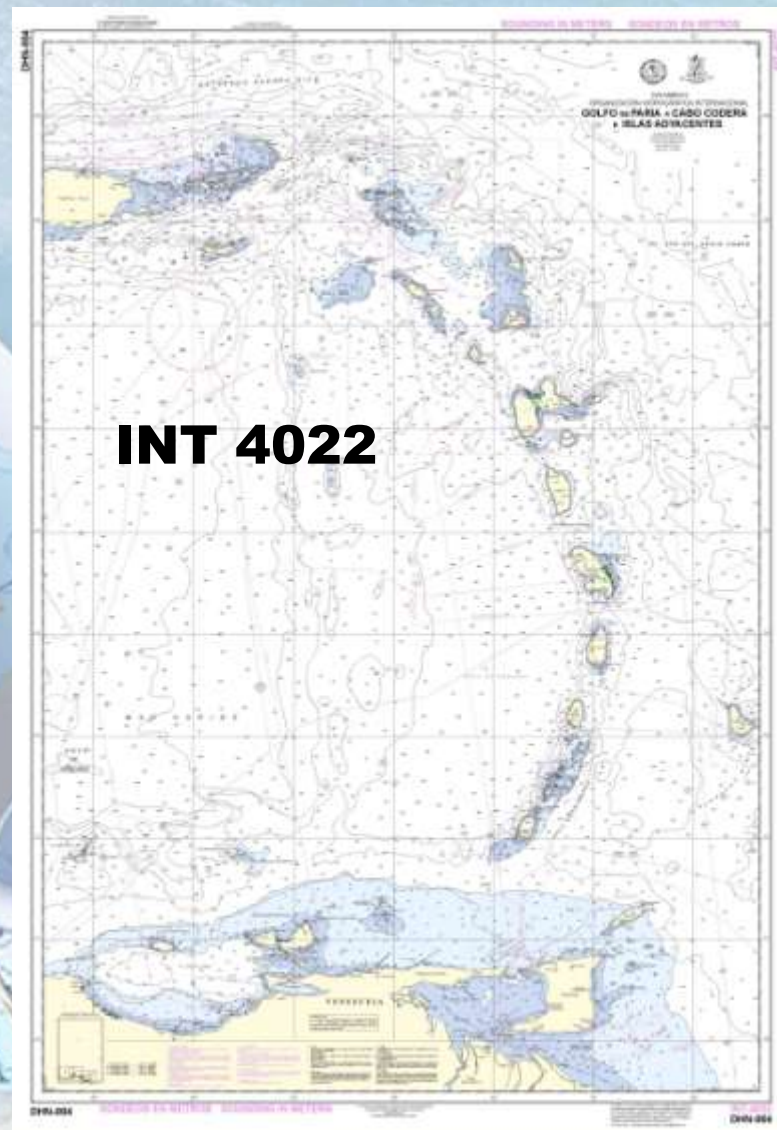




NEW CHARTS AND UPDATES



INT 4023



INT 4022



NEW CHARTS AND UPDATES



INT 4112



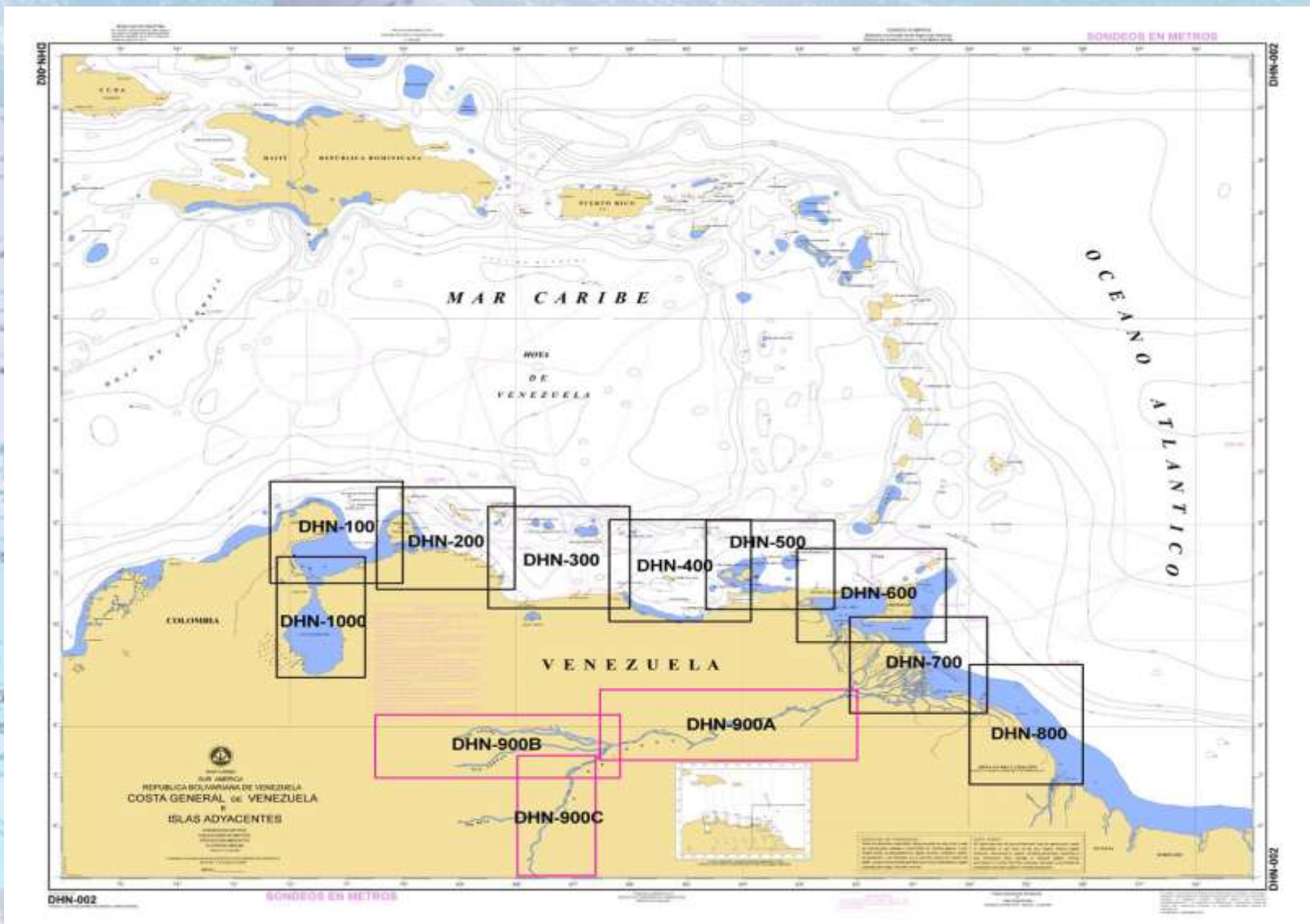
INT 4110



INT 4108



NAUTICAL CHARTS CATALOG

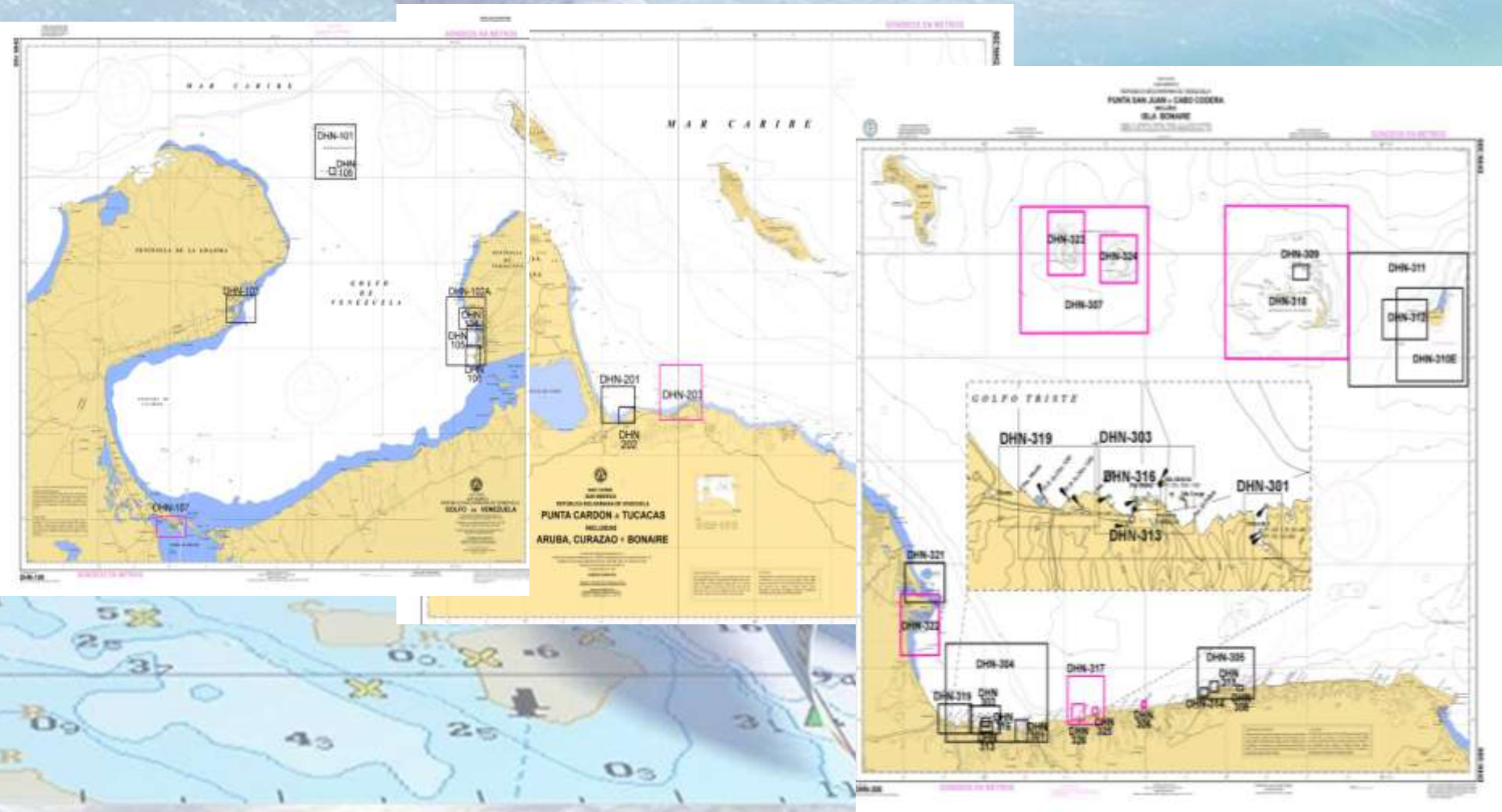




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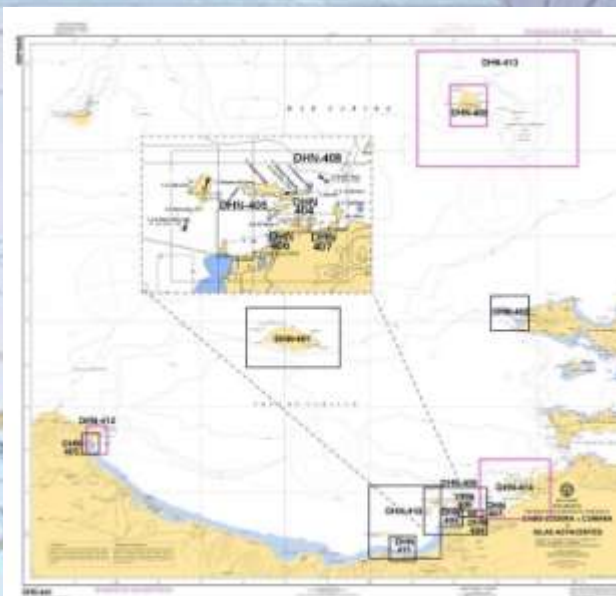


NAUTICAL CHARTS CATALOG





NAUTICAL CHARTS CATALOG





NEW PUBLICATIONS AND UPDATES

4.1) New Publications:

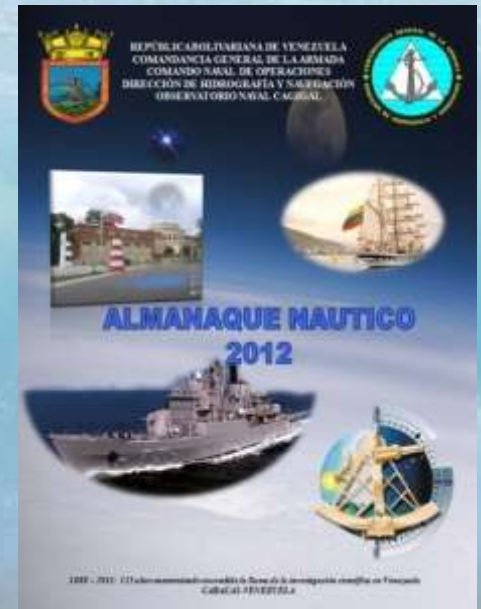
- 2013 Nautical Almanac.

4.2) Updated Publications:

- Nautical Charts Catalog (2nd Edition – January 2012).

4.3) Publications in revision for updating:

- List of Light and Buoys (2nd Edition – February 2013).
- Venezuela Sailing Directions (2nd Edition – July 2013).





C-55

1. HYDROGRAPHIC SURVEYING

6.1 Status of hydrographic survey of all navigable waters, including internal waters, out to the limits of the EEZ:

Coverage of the hydrographic surveys, 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.

	A	B	C
Depths < 200m	65	25	10
Depths > 200m	100	0	0



C-55

2. NAUTICAL CHARTING

6.2 Status of nautical charting within the limits of the EEZ

Coverage of charts published by your organization, where:

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 ENCs meeting the standards in S-57.

Purpose/Scale	A		B		C
	<u>INT</u>	National series	<u>INT</u>	National series	
Offshore passage / Small	100	100	N/A	N/A	80
Landfall and Coastal passage / Medium	100	100	N/A	N/A	60
Approaches and Ports / Large	0	80	N/A	N/A	45



CAPACITY BUILDING

a) Training needed:

- **Multibeam Workshop.**
- **Hydrographic Surveys on Rivers.**
- **ENC's production.**

b) Training and courses offered:

- **Master Degree on Hydrography (2 years - Venezuelan Navy Postgraduate School).**
- **Hydrographic Survey Course (2 weeks – DHN – increasing understanding and operation of hydrographic equipment).**
- **Hydrometeorology Course (2 months – DHN – training program for assistance personnel employed in hydrographic, meteorological, oceanographic or signaling operation / 3 levels (basic / medium / advanced)).**



OCEANOGRAPHIC ACTIVITIES

- ✓ **Biological Base Line Survey on four ports (Puerto Cabello, Amuay, Criogenico de José and Ferrominera – Orinoco River) for Ballast Water National Program (Venezuela Globallast) requested by INEA.**
- ✓ **Fifth Research Campaign on Aves Island (Isla de Aves) with participation several research and educational institutes of Venezuela (IVIC, UCV, UMC, USB, INTEVEP, Environment Minister, Foreign Affairs Minister).**
- ✓ **Installation of 4 METOC Buoys in Los Testigos, La Tortuga, Los Monjes and north of Peninsula of Paria.**
- ✓ **Development of database for the National Oceanographic Data Center (CENDOC).**



OTHER ACTIVITIES

- ✓ **DHN has 7 meteorological stations under responsibility along coast and islands, in the following locations: Punto Fijo, Los Monjes, Puerto Cabello, Isla de Aves, La Guaira, Carupano and Caracas. In 2009 was created National Metrology and Meteorology Institute (INAMEH) responsible for handle all the meteorological information. They have network of almost 150 meteorological stations distributed across our country.**
- ✓ **Geospatial studies are conducted by National Aerospace Agency (ABAE) that control 2 satellites launched for Venezuela (Simon Bolivar 2010 – Communications and Francisco de Miranda 2012 – Environmental Studies).**



OTHER ACTIVITIES

- ✓ **Disaster prevention is under responsibility of National Civil Protection and Disaster Management Direction (Dirección Nacional de Protección Civil y Administración de Desastres) and Tsunamis – Earthquake Network is under responsibility of the Venezuelan Foundation for Seismological Research (FUNVISIS).**
- ✓ **Tide network is operated by Venezuelan Geographic Institute “Simon Bolivar” (IVGSB) who is responsible to produce prediction tide tables.**



**¡THANKS FOR YOUR
ATTENTION!**