



# ***BRAZILIAN NATIONAL REPORT***

***Brazilian Navy  
Directorate of Hydrography and Navigation/BR***

***MACHC 18-03D***

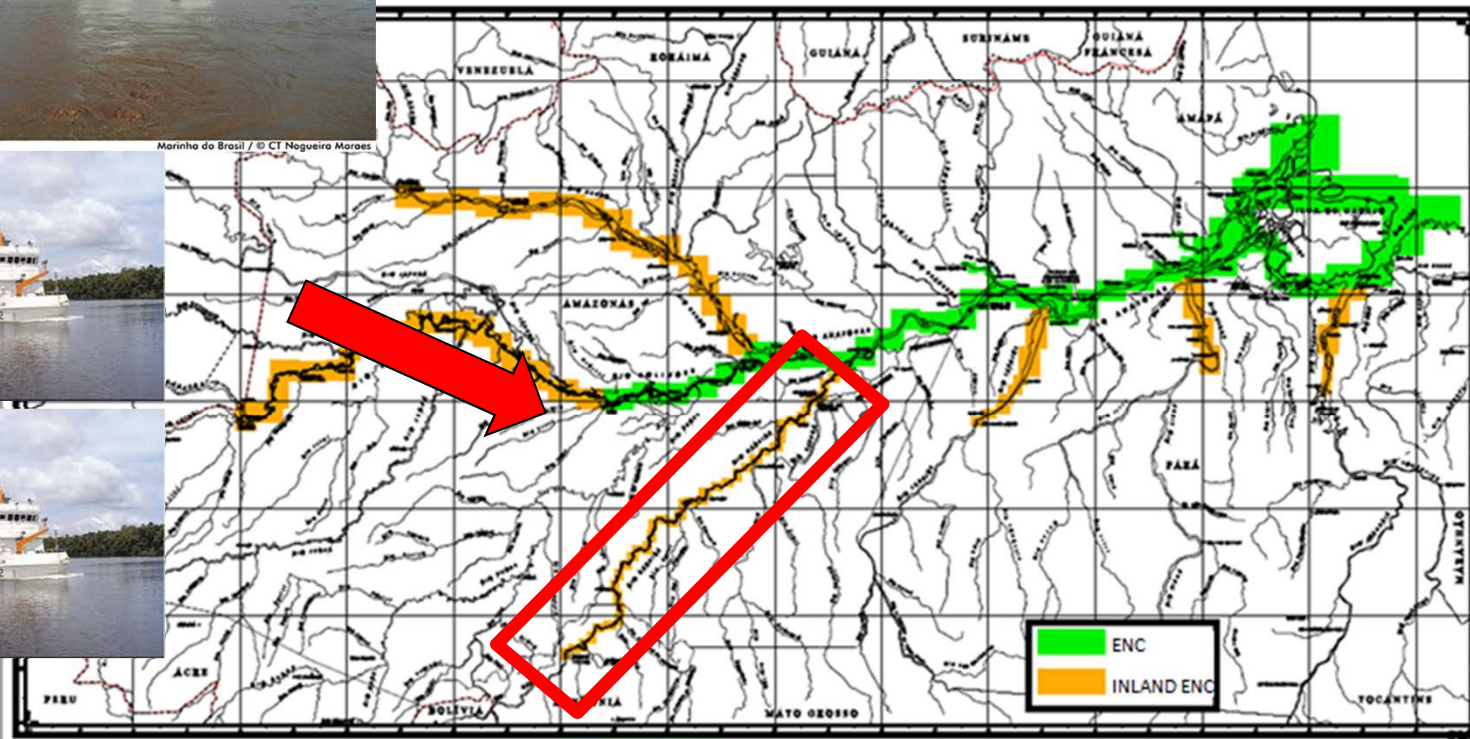




# SURVEYS



Madeira River: approximately 3,250 km (2,020 mi) long, accounting for about 15% of the water in the Amazon basin.



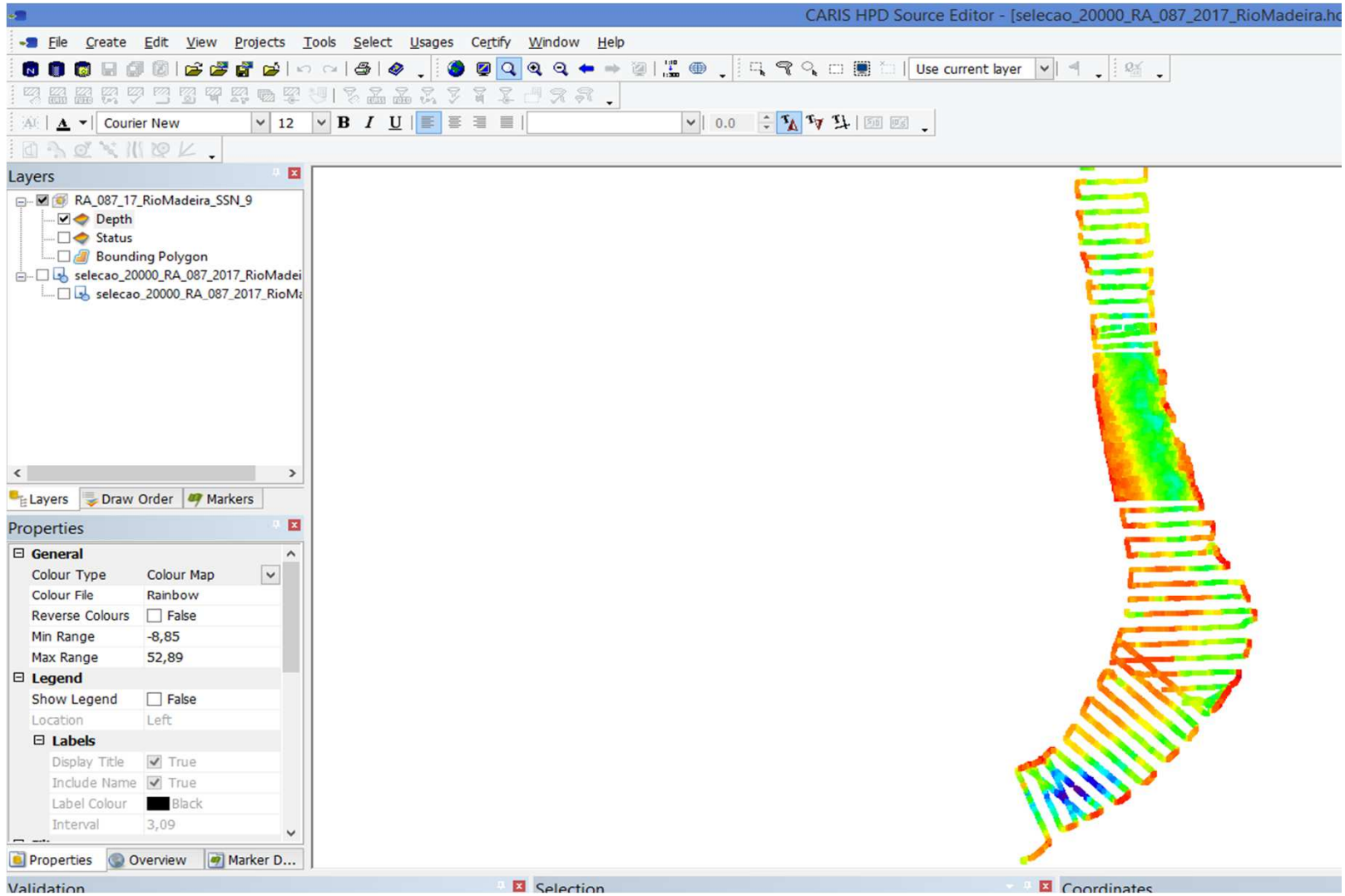


# SURVEYS

The screenshot displays the CARIS HPD Source Editor interface. The main window shows a map with a survey track colored in a rainbow gradient, indicating depth or elevation data. The track starts at the bottom left and moves generally upwards and to the right, with several loops and turns. The interface includes a menu bar (File, Create, Edit, View, Projects, Tools, Select, Usages, Certify, Window, Help), a toolbar, and a text editor area with 'Courier New' font and size 12. On the left, there is a 'Layers' panel with a tree view showing multiple 'Band 1' and 'HMD' layers (HMD14\_1 to HMD18\_1). Below it is the 'Properties' panel with sections for 'General' (Colour Type: Colour Map, Colour File: Rainbow, Reverse Colours: False, Min Range: -8,85, Max Range: 52,89), 'Legend' (Show Legend: False, Location: Left), and 'Labels' (Display Title: True, Include Name: True, Label Colour: Black, Interval: 0,00). At the bottom, there are 'Validation' and 'Coordinates' panels. The 'Validation' panel has a table with columns: Longitude, Latitude, Shoal (m), Dataset... The 'Coordinates' panel is empty. The status bar at the bottom shows 'Ready', 'Selected: 0 (Custom)', '1:793814 07:57,8582025 063-51,144516W', and system information: 'POR 11:19 PTR2 10/11/2017'.



# SURVEYS





# BR INT CHARTS

INTernational Chart Web Catalogue MANUAL DOWNLOAD Manager km | NM | CHART SEARCH  
Please see base map disclaimer / Voir aver

**CHART SEARCH**

INT No

**SEARCH Option**

INT Region  CHART Scale

Prod. Nation

Pub Year

Status

**CHART List** 6 Item

- ▶407:Northeast Coast of ...
- ▶4071:De Cayenne ao Cabo ...
- ▶4194:Do Cabo Orange à Po...
- ▶4195:Da Ponta Tucumã à P...
- ▶4196:Do Cabo Norte ao Ca...
- ▶4197:Do Cabo Maguari à P...





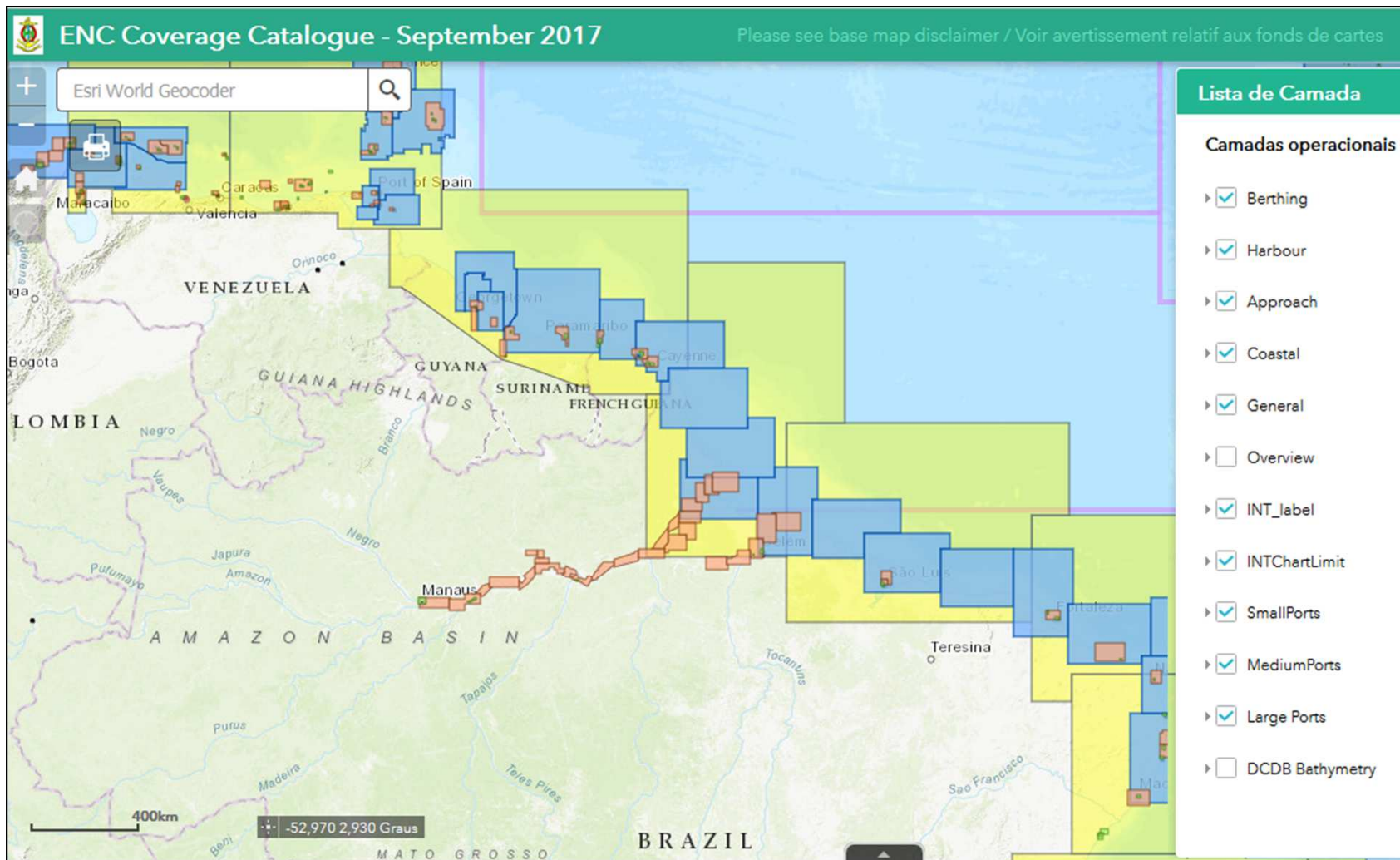
# BR INT CHARTS

NatChart Number	INT TITLE / TITRE	Scale	1 <sup>st</sup> Ed	NewEdition Year	Printer Nation	Producing Status	Print format
10	Northeast Coast of South America - Costa Nordeste da América do Sul	3.500.000	1975	1999	FR GB	Produced	A0, A0
21010	De Cayenne ao Cabo GurUpi	1.000.000	2010			Produced	
21100	Do Cabo Orange à Ponta Tucumã	300.000	2009			Produced	
21200	Da Ponta Tucumã à Ponta Guará	300.000	2011			Produced	
21300	Do Cabo Norte ao Cabo Maguari	300.000	2013			Produced	
21400	Do Cabo Maguari à Ponta Boíuçucanga	300.000	2012			Produced	

The nautical charts are maintained updated fortnightly by Notice to Mariners disseminated by DHN/BR.

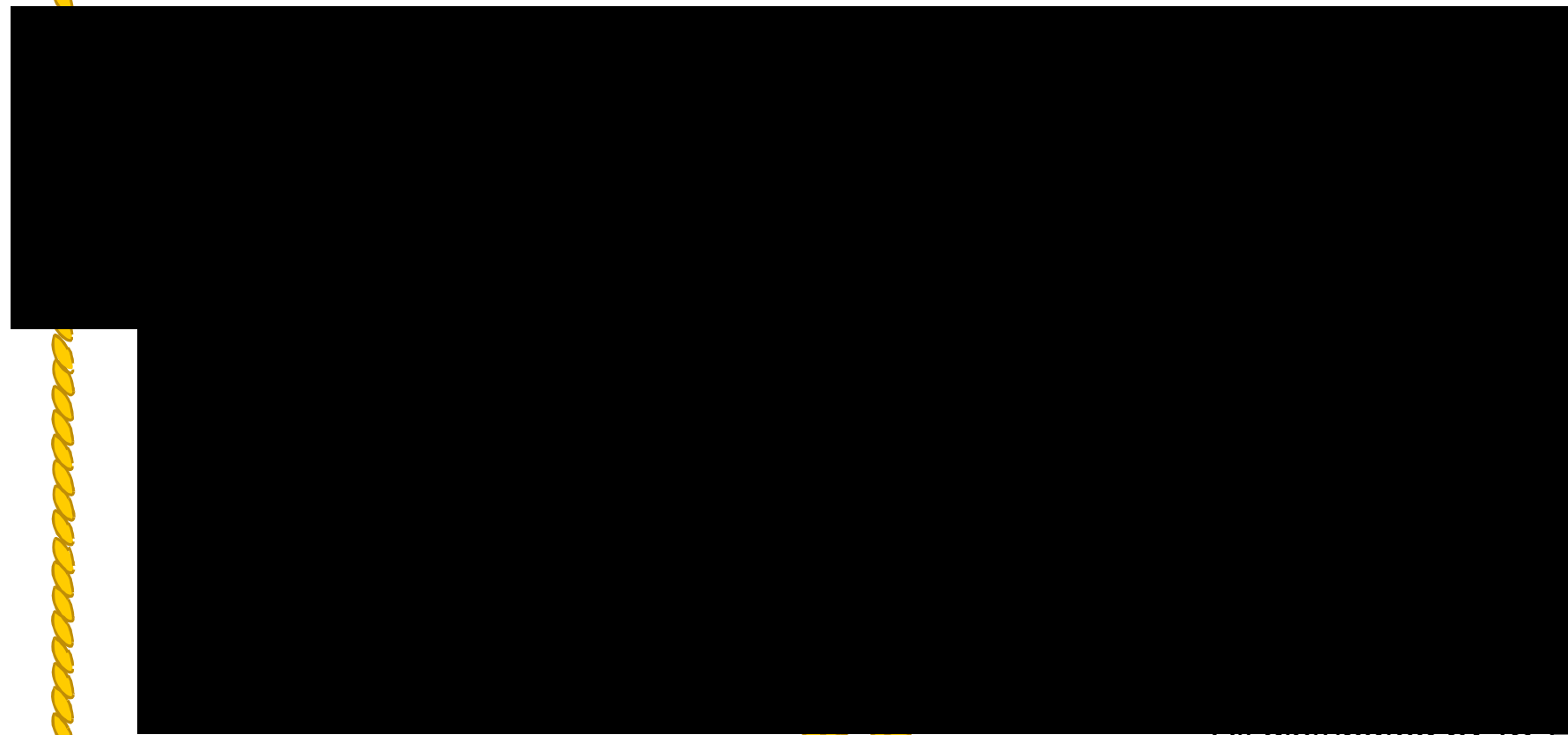


# BR ENC CHARTS (53)





# BR ENC CHARTS UB2/3



All distributed by IHO-ENC.







# BR ENC CHARTS UB4

CELL NUM	TITLE	CEL NUM	TITLE
BR4 00011	Arquipélago de São Pedro e São Paulo	BR4 04415	Da Ilha Jacitara ao Lago Aracuã
BR4 00221	Barra Norte do Rio Amazonas	BR4 04418	Do Lago Aracuã ao Rio Trombetas
BR4 00202	Da Ilha Bailique a Ponta do Capinal	BR4 04031	Da Ilha de Matari a Manaus
BR4 00203	Da Ponta do Capinal às Ilhas Pedreira	BR4 41011	Da Ilha Mangabal à Ilha do Comandaí
BR4 00204	Das Ilhas Pedreira à Ilha de Santana	BR4 41012	Da Ilha dos Porcos à Ilha Gde de Taiacuí
BR4 00242	Da Ilha dos Porcos à Ilha de Santana	BR4 41021	De Ilha do Sarapoí a Almeirim
BR4 00243	Da Ilha Ituquara à Ilha dos Porcos	BR4 41022	De Almeirim a Prainha
BR4 00244	De Gurupá à Ilha Ituquara	BR4 41031	Da ilha do Mouraba a Costa do Ituquí
BR4 00302	De Salinópolis ao Canal do Espadarte (NE)	BR4 41032	Da Costa do Ituquí a Ilha do Meio
BR4 00303	Do Baixo do Espadarte à Boca do Vigia	BR4 41041	Da Ilha do Meio à Ilha de Santa Rita
BR4 00304	De Mosqueiro a Abaetuba	BR4 41042	Da Ilha de Santa Rita a Parintins
BR4 00305	Da Ilha do Capim à Ilha da Conceição	BR4 41051	De Parintins a Costa do Giba
BR4 00306	Da Ilha da Conceição aos Estreitos	BR4 41052	Da Costa do Giba a Itacoatiara
BR4 00315	Da Boca do Vigia a Mosqueiro	BR4 41061	De Itacoatiara à Ilha da Grande Eva
BR4 04026	Da Ponta dos Mundurucus à Parintins	BR4 41062	Da Ilha da Grande Eva a Manaus
BR4 04028	Da Ponta dos Mundurucus à Ilha Panumã	BR4 41031	Da ilha do Mouraba a Costa do Ituquí
BR4 04029	Da Ilha Panumã a Itacoatiara	BR4 41032	Da Costa do Ituquí a Ilha do Meio
BR4 04411	Da Foz do Rio Trombetas à Ilha Jacitara		

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# BR ENC CHARTS UB5/6

CELL NUM	TITLE
BR5 04110	Porto de Manaus
BR5 41031	Santarém
BR5 00206	Porto de Santana
BR5 00320	Porto de Belém
BR5 00321	Porto de Vila do Conde
BR5 4026A	Paraná do Mocambo
BR5 4029B	Terminal Graneleiro
BR5 4029C	Terminal de Itacoatiara
BR6 4032A	Plano A Porto de Manaus
BR6 4032B	Plano B Porto Chibatão
BR6 4032C	Plano C Terminais da Reman

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# MAIN ACHIEVEMENTS

The screenshot shows the website [www.boletimaomar.org.br](http://www.boletimaomar.org.br) in a browser. The page features a background image of a sailboat on the ocean at sunset. The main heading is "Boletim ao MAR". Below it, the text reads: "Chega de surpresas com o mar. Baixe o novo aplicativo BOLETIM AO MAR e receba diariamente informativos meteorológicos sobre as condições do mar e informações náuticas sobre as condições de navegação." At the bottom left, there are icons for Apple and Android. On the right side of the page, there is a "Curta Nosso: Curtir" button. In the foreground, three smartphones are displayed, showing the mobile app interface. The left phone shows a map of Brazil with a red area indicating a weather alert. The middle phone shows a menu with options: INICIO, MAU TEMPO, METEOROMARINHA, RADIO NAUTICO, CARTAS SINOTICA, NAVEGANTES, METEOGRAMA, and MANTIDO POR. The right phone shows a grid of icons for MAU TEMPO, METEOROMARINHA, RADIO NAUTICO, METEOGRAMAS, CARTAS SINOTICAS, and AVISO AO NAVEGANTES.



# MAIN ACHIEVEMENTS

- 1<sup>st</sup> birthday of Latin America (LA) RENC Group:
  - The regional IC-ENC Office in Brazil became operational on June 21<sup>st</sup> 2016. The main reason for the existence of the regional office is to provide a personalized support to the Latin-American Hydrographic Services in order to better serve their needs regarding the production and validation of ENC's. Not only LA ENC's were validated here, as part of IC-ENC's global operating model, countries like Russia, Italy, Denmark, England, Pakistan, Netherlands, Germany, United States, Spain, Portugal and others had the ENC's validated by the Office.



# MAIN ACHIEVEMENTS

- 1<sup>st</sup> birthday of Latin America (LA) RENC Group:
  - During this first year were validated 862 updates, 382 new editions and 173 new cells by our validators.





# CAPACITY BUILDING

- CB:

COURSE	DESCRIPTION	DURATION
C-Esp-HN	Aims to qualify the student to be a technician in Hydrography and Navigation issues.	42 weeks
C-Ap-HN	Aims to increase the capability of the student to be a technician in Hydrography and Navigation.	35 weeks
CAHO (IHO Cat."A")	Aims to provide the student with the capability to plan, to conduct and to execute the activities related with the Hydrographic Service.	50 weeks

- Bathymetry training course using RTK technology (02/06OCT). Participants (17): Argentina (2), Brazil (11), Colombia (1), Mexico (1) and Uruguay (2).



## **UPDATE ON C-55**

- C-55 templates updated in NOV2017;

## **UPDATE ON S-11**

- INTToGIS scheme updated. DHN-BR counts on two passwords (as INT Chart Coordinator for Region C and NHS). From JAN2018 the Coordinator will be Lt. Cdr. Freire, from DHN/BR.



# MAIN CHALLENGES

- Importance of different sources of data (DHN + civilian + **CSB**);
- Need to optimize data collection, processing and archiving, volume of data reaching Tb);
- Need to qualify people for data processing and analysing. Use of BATHY + HPD is well implemented;
- Need to readequate the Cartography work for the future coming (the role of paper charts, I-ENC and the growth of the ENC coverage).



# ***THANK YOU***

***For further informations,  
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