



Inland ENC: Status of legal and practical implementation in Brazil

7th IEHG, September 2009



Legal implementation in Brazil

- Directorate of Hydrography and Navigation (DHN), the Brazilian National Hydrographic Service is responsible for:
 - Defining guidelines and authorizing the establishment, modifications or permanently cancellation of aids to navigation;
 - producing official nautical charts for maritime and inland waters;



DHN participation in IEHG

- 2007 – DHN joined IEHG
- 2008 – studied IENC specifications
- 2009 – CRs to IENC products specifications to make them complied with Brazilian complementary navigational aids for inland waterways



Brazilian Inland waters Notice Marks





Brazilian proposals to Inland ENC specifications

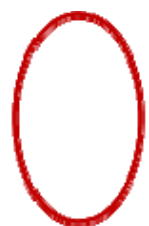
Amends or insertions on following items:

- CR_B_SORDAT
- CR_B_SORIND
- CR_C_1_3
- CR_O_1_10
- CR_O_2_5
- CR_O_3_1
- CR_PROD_SPEC_DATA SET FILES
- CR_Annexes



Production

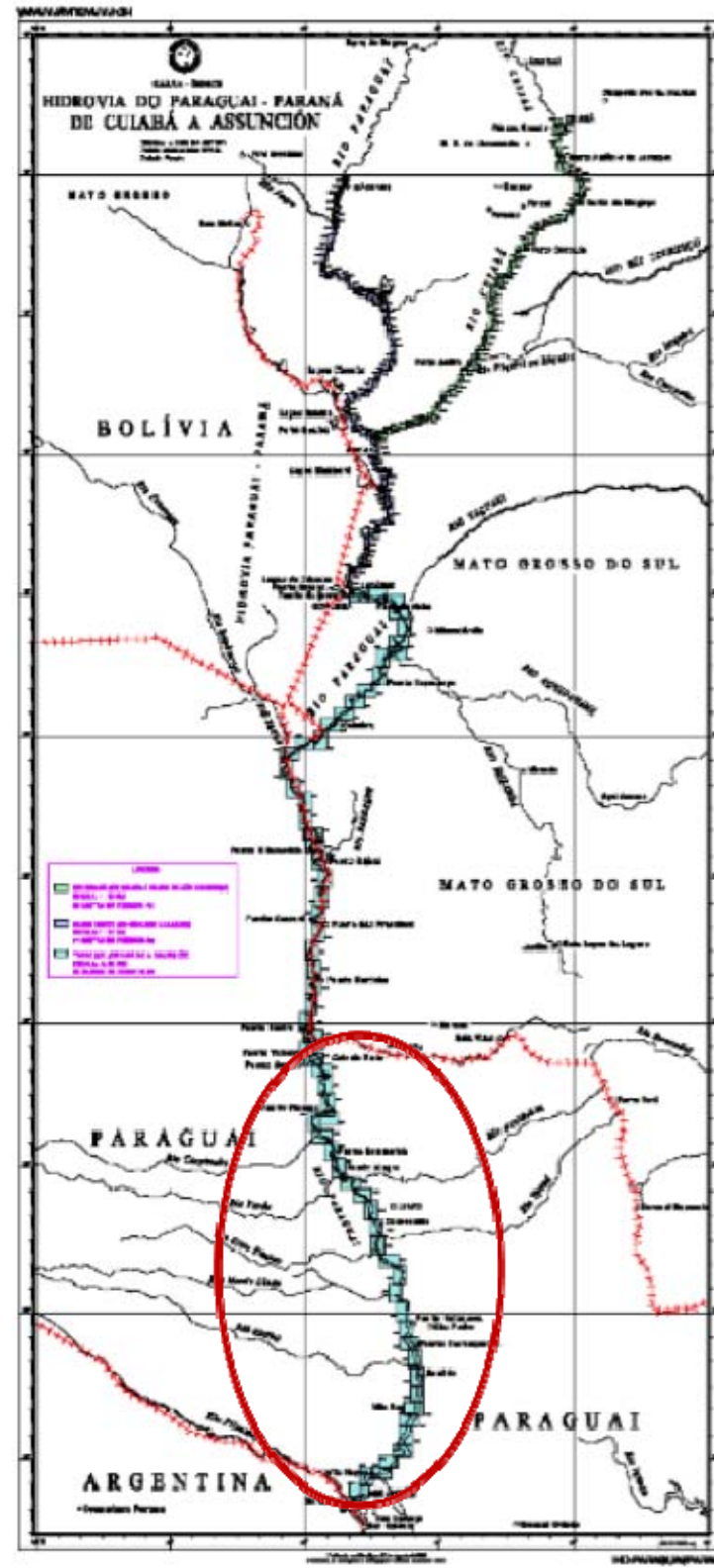
S-57 capture of **Paraguai River** data, based on regular chart production - aprox. 1.890 km



Expected for 2009 – Paraguayan section

DHN produces charts from Asunción to Apa river mouth.

IENC coverage of Brazilian waterways depending on new version of product specifications and paper chart production – Expected for 2010/2013





Future tasks related to rivers

○ **Tietê-Paraná Waterway**

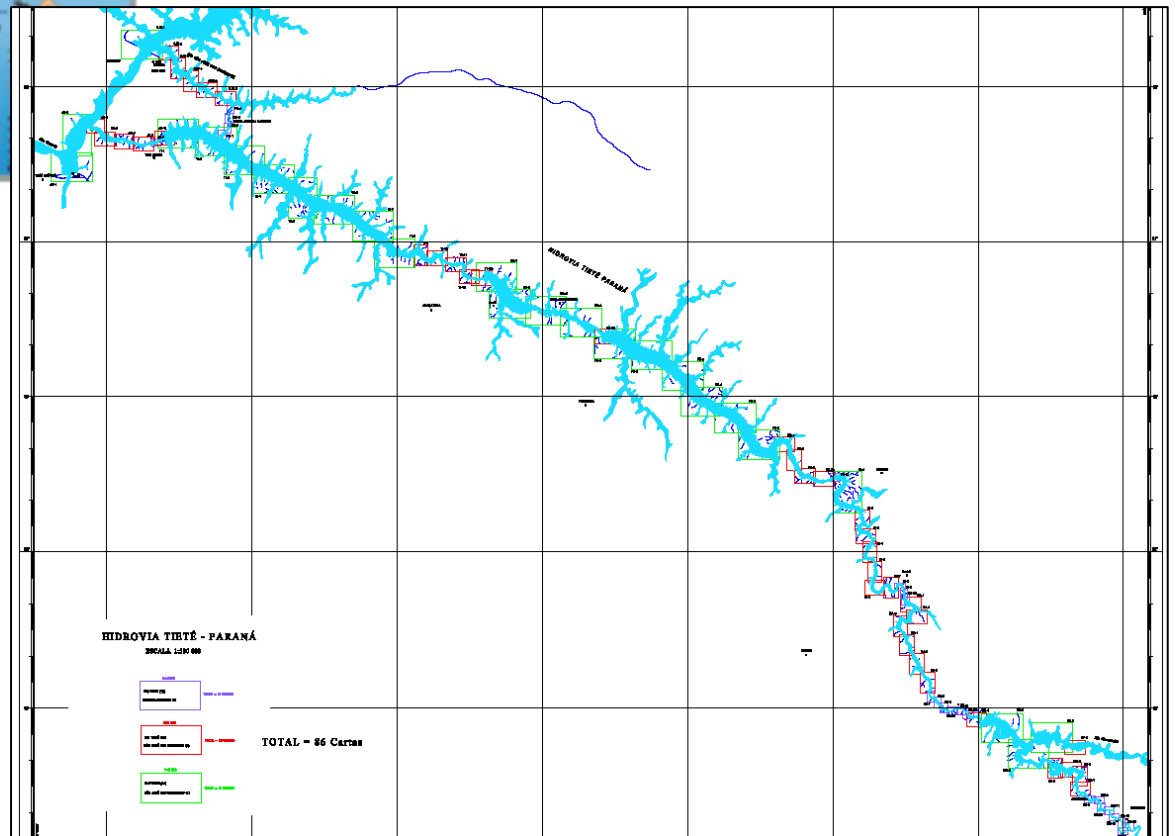
- 2009 / 2011 - new editions of paper charts

○ **Amazon Basin**

- 2009 - cartographic scheme reformulation
- 2010 - 2013 - resurveying and chart production

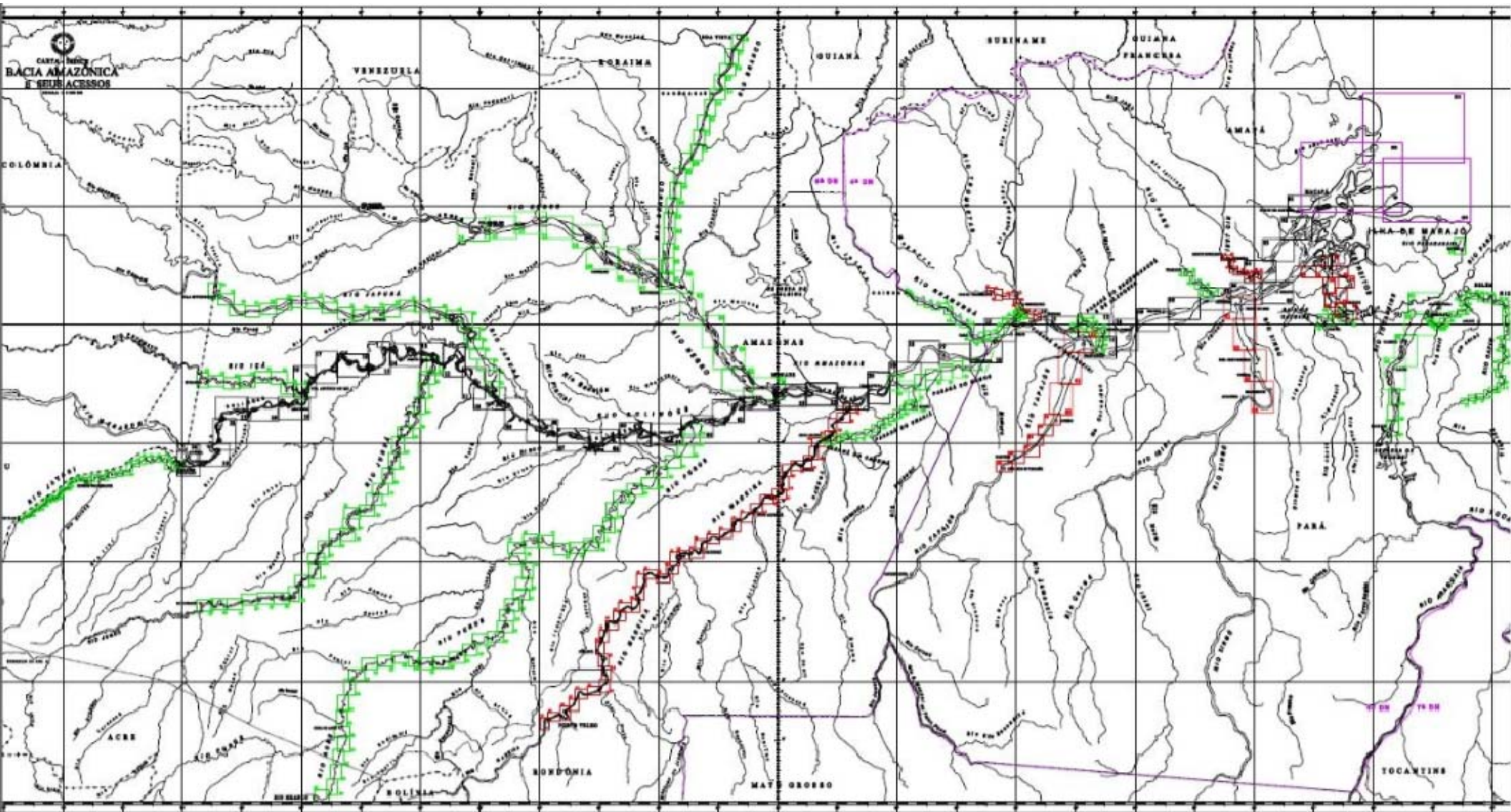


Tietê-Paraná Waterway





Amazon Basin – New scheme





Thanks...

Contacts:

Cdr. Emir Ordacgi Caldeira
Brazilian Navy Hydrographic Centre
Superintendence of Safety of Navigation
e-mail: ordacgi@chm.mar.mil.br
tel.: +55 21 2189 3020

Lt.Cdr. Flávia Mandarino
Brazilian Navy Hydrographic Centre
Division of Cartography
e-mail: flavia@chm.mar.mil.br
tel.: +55 21 2189 3084