



INLAND ENC HARMONIZATION GROUP

CHATSO 10 - 2016



**Inland ENC
Harmonization Group**



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- The 13th Annual Meeting of the Inland ENC Harmonization Group occurred in Nanjing, China, from 13-15 OCT 2015. DHN/BR took part on the event, represented by CF(T) Flávia.
- Also took part in the meeting representatives from China, Europe and United States. Stakeholders also attended – CARIS, ESRI, IIC Technologies Inc., Laurel Technologies Company, SuperMap Co. Ltd. and Tinnos Inc.





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- Activities:
 - Election of the Chair and Core Group of IEHG for the coming year;
 - The representatives from the participant countries presented the updates of their IENC production and utilization;
 - Stakeholders presented applications for IENC;
 - The updates for the bathymetric IENC were presented, as the Product Specification (edition 2.4) for bathymetric Inland ENCs, Feature Catalogue and test cells (APR2015);
 - A review of the Product Specification for Inland ENCs (edition 2.4 – APR2014), as it's minimum requirements, was presented and accepted by the representatives;





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- China presented change requests for the their waterways IENC;
- Bathymetric Inland ENC: Europe developed a Product Spec within a Research and Development project of the European Union. The product provide the possibility to produce updates of depth in IENCs from the survey data in a very efficient and fast way;
- Accuracy information in Inland ENCs: at the 9th meeting, IEHG came to the conclusion that it is quite difficult for the user to find the information on the accuracy of different objects in the Inland ENC. IEHG discussed how to improve the information;





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- IEHG has decided to align the Product Specification for Inland ENCs with S-101 and IHO has reserved the code S-401 for this future Product Spec. The European project River Information Services Corridor Management (CoRISMa) is currently drafting the first proposals and presented the documents;



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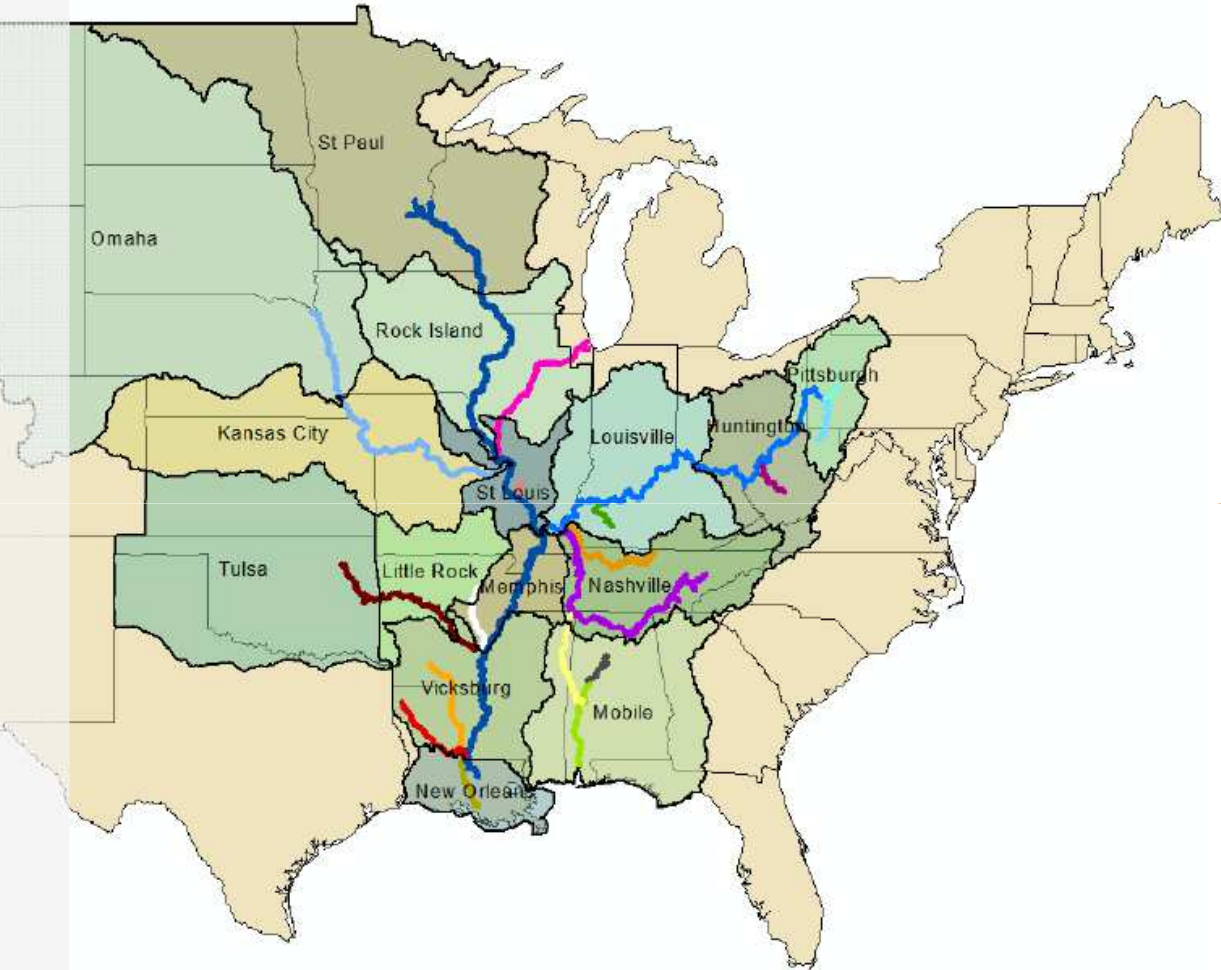


- Knowledge gained:
 - USA:
 - The US Army Corps of Engineers (USACE) is responsible for the production of IENC in US rivers. There is a government program that supports the activities related to the electronic river cartography (IENC Program). 85% of the surveys done by private companies, 15% done by USACE.
 - Presently there are no mandatory carriage requirements for electronic charts on US Inland waterways. Despite this fact, 99% of commercial push boats voluntarily have ECS on-board. Depending on the waterway, between 65-80% of vessels are voluntarily using AIS.



Inland Waterways in the USA

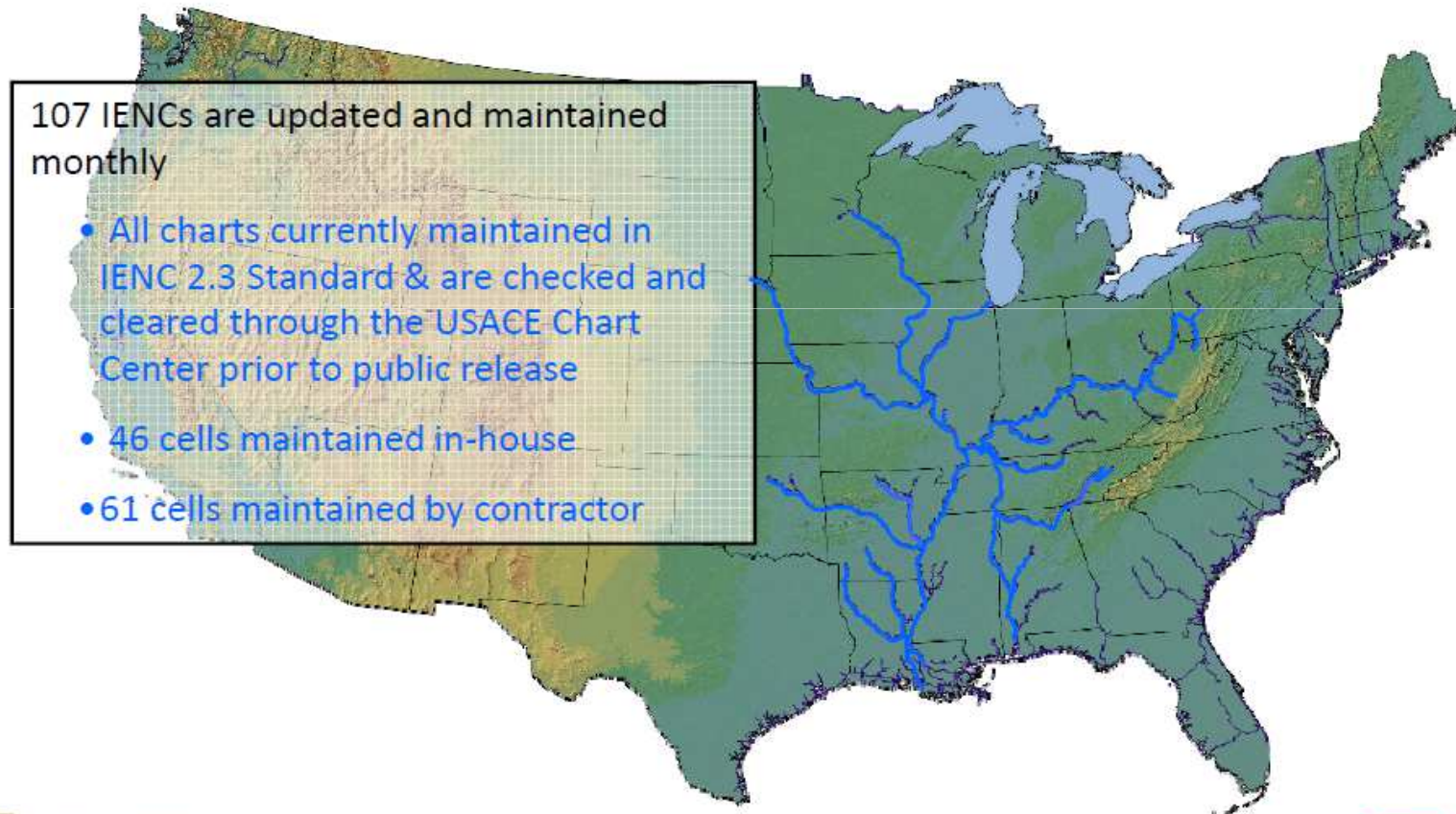
- Allegheny – 72 km
- Arkansas – 716 km
- Atchafalaya – 190 km
- Black Warrior – 378 km
- Cumberland – 613 km
- Green – 174 km
- Illinois – 542 km
- Kanawha – 146 km
- Kaskaskia – 58 km
- Mississippi – 2545 km
- Missouri – 1180 km
- Mobile / Tombigbee – 349 km
- Monongahela – 208 km
- Ohio – 1579 km
- Ouachita – 565 km
- Red – 381 km
- Tennessee – 1231 km
- Tenn-Tom Waterway – 349 km
- White – 394 km



Status of IENC Production in the USA

<http://www.agc.army.mil/echarts/>

7,260 mi (11,684 km) of inland waterways are scheduled for Inland ENC coverage



Implementation of Inland ENC's in the USA

River / Waterway	Miles	Kilometers	Inland ENC 2.3 (converted Jan. 2015)
Allegheny River	45	72	Published
Arkansas River	445	716	Published
Atchafalaya River	118	190	Published
Black Warrior River	235	378	Published
Cumberland River	381	613	Published
Green River	108	174	Published
Illinois Waterway	337	542	Published
Kanawha River	91	146	Published
Kaskaskia River	36	58	Published
Lower Mississippi River	715	1,151	Published
Missouri River	733	1,180	Published
Mobile / Tombigbee Rivers	217	349	Published
Monongahela River	129	208	Published
Ohio River	981	1,579	Published
Ouachita River	351	565	Published
Red River	237	381	Published
Tennessee River	765	1,231	Published
Tennessee-Tombigbee Waterway	225	362	Published
Upper Mississippi River	866	1,394	Published
White River	245	394	Published
Total	7,260	11,684	



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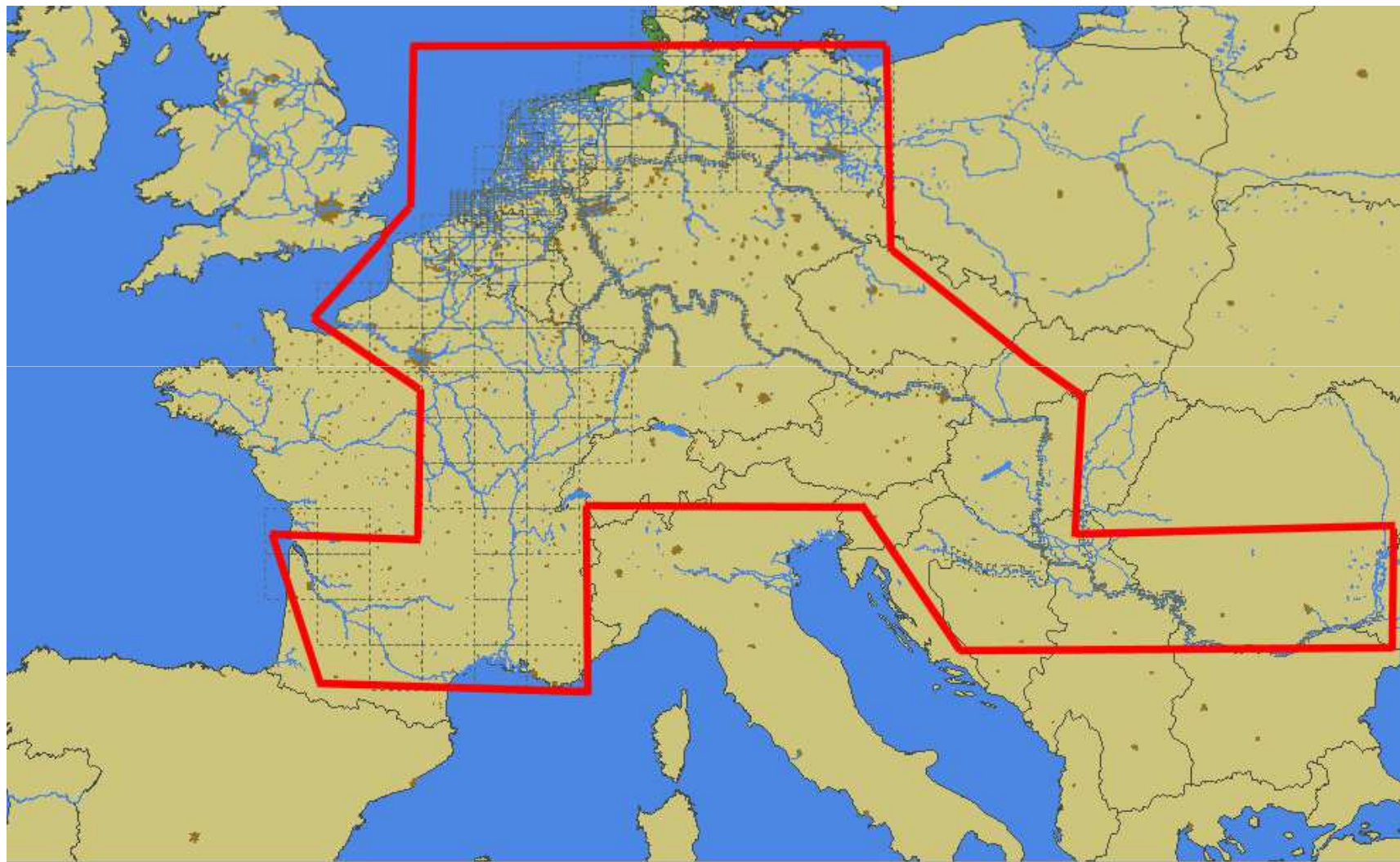


- Knowledge gained:
 - Europe:
 - The Comissions of Danube and Rhine (CCNR and Danube Commission) are the institutions that establish technical specifications for the production and utilization of IENC. 16 countries participate in the commissions.
 - More than 10.000 km of waterways are covered by IENC, with more than 11.000 ships equipped with Inland ECDIS.
 - The European countries have also developed a common standard for chart viewers for use in Europeans waterways.





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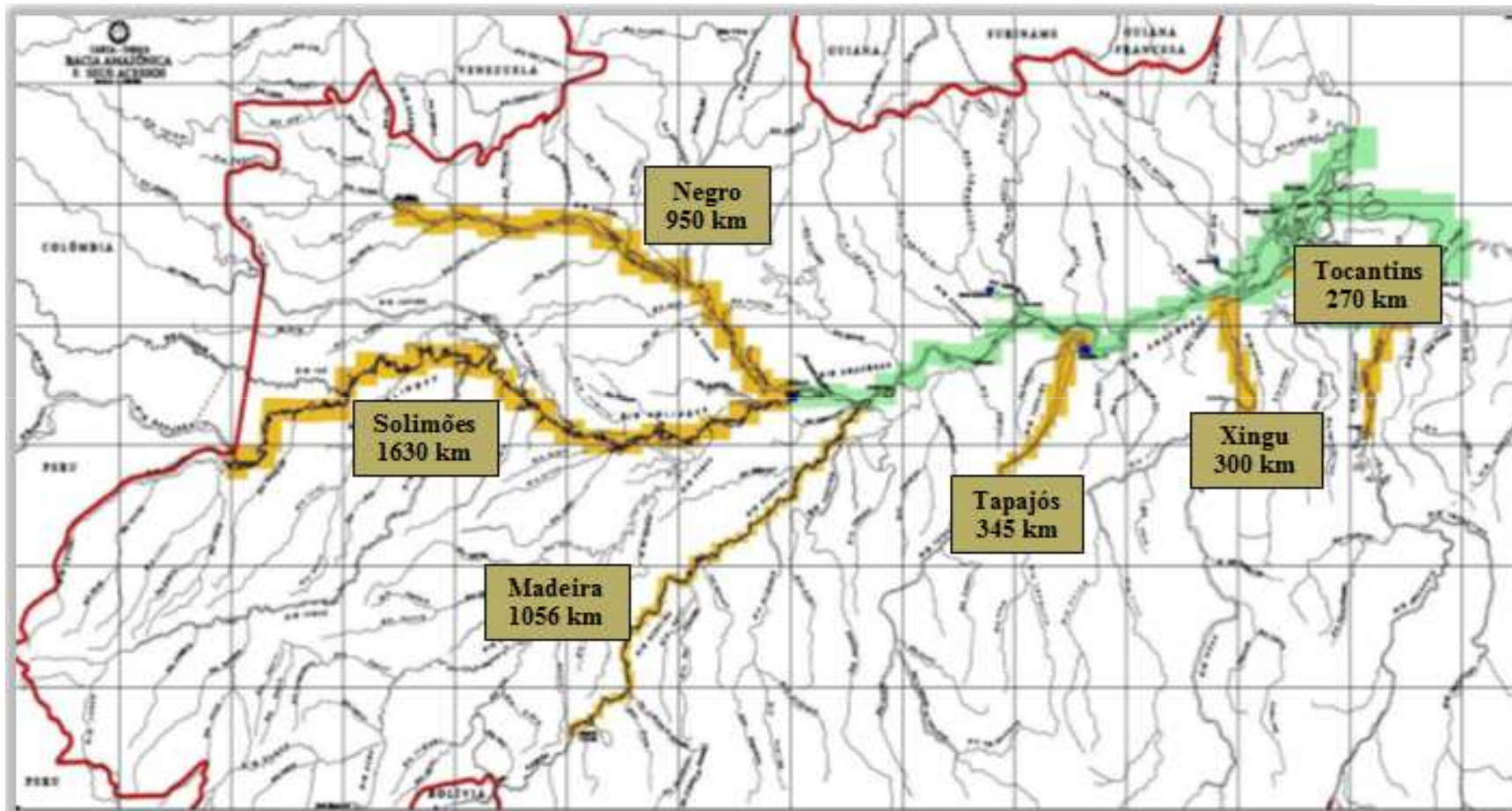


- Knowledge gained:
 - Brasil:
 - Directorate of Hydrography and Navigation (DHN) defines guidelines and authorizes the establishment, modifications or permanent cancellation of aids to navigation; also produces official nautical charts for maritime and inland waters.
 - The 3rd Nautical Cartographic Plan establishes the places to be covered by IENC (next slides).
 - IENCs are now being tested in Paraná-Paraguai waterway by Navy and civilian navigators.





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Approximately 4500 km





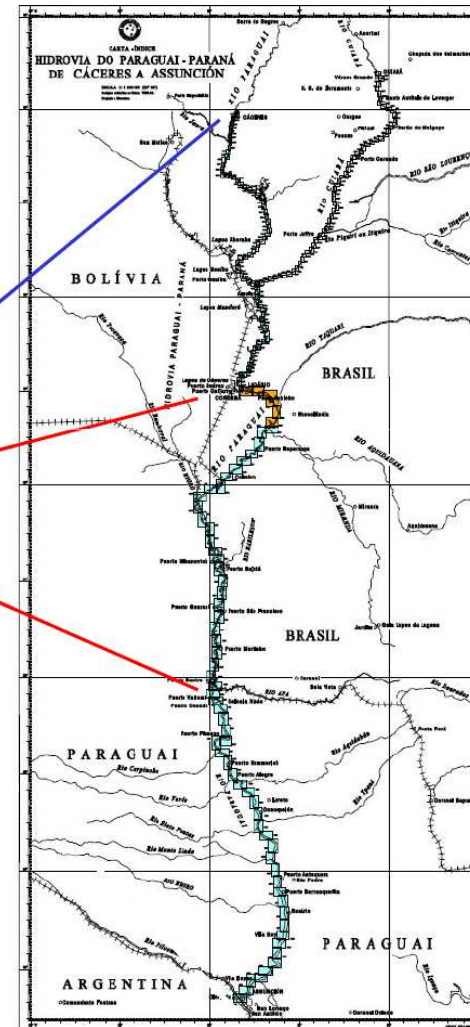
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Paraguay River
Inland ENCs available for
tests

Part of Brazilian section – 600km

Paraguay River
(Cáceres – Asunción)
• Brazilian section – 1278 km



GRACIAS!

The screenshot displays a maritime navigation software interface. On the left, there is a 'Browser' window with a table of objects and an 'Inspector' window with detailed information. On the right, a chart shows the Canal of Ghent-Terneuzen with various navigational markers and a red arrow pointing to a specific location.

Description	Acronym	Cellname
Navigational system of m...	m_nsys	BE7GT017.000
Navigational system of m...	m_nsys	BE7GT017.000
Dredged area	DRGARE	BE7GT017.000
Coverage	M_COVR	BE7GT017.000
Communication area	comare	BE7GT017.000
Communication area	comare	BE7GT017.000
Communication area	comare	BE7GT017.000
Caution area	CTNARE	BE7GT017.000
Caution area	CTNARE	BE7GT017.000

12 objects

Inspector

< open

Meldingsplicht binnenvaart op kanaal 11.

Er geldt een algemene uitbasterplicht op kanaal 11 voor al wie over een marifoon beschikt.

Meldingsplicht:

- Binnenvaart breder dan 16m moet zich melden t.h.v. de semaforen (cf. art. 39 van het scheepvaartreglement voor het Kanaal Gent-Terneuzen)
- Binnenvaart hoger dan 9m40 moet zich melden t.h.v. de semaforen (voor het bekomen van een brugopening)
- Binnenvaart, breedte < 16m en/of hoogte < 9m40: geen meldingsplicht

Reporting obligation on channel 11.

General listening watch on channel 11 for all keepers of VHF

Obligation to report:

- Inland Vessels with width > 16m are obliged to report amounting the semaphores (cf. art 39 of the shipping rules for Canal Ghent-Terneuzen)
- Inland Vessels with height > 9m40 are obliged to report amounting the semaphores (in order to obtain bridge opening)
- Inland Vessels, width < 16m and/or height < 9m40: no obligation to report

Kanaal Gent-Terneuzen

51 11.9572 N 003 48.2399 E | 1-1616

