





Status of Inland ENCs in Europe

Bernd Birkhuber
European Inland ECDIS expert group

European inland waterways







Inland ENCs and Inland ECDIS in Europe

-  IEHG is currently only dealing with the standardization of Inland ENC
-  The European countries have also developed a common standard for chart viewers
-  The standard is based on the maritime S-52 standard for Electronic Chart Display and Information Systems (ECDIS)
-  The European “Inland ECDIS standard” contains the Product Specification for Inland ENC and the Performance Standard and test procedures for Inland ECDIS applications





Legal Status of Inland ENC's in Europe

Inland ECDIS Standard Edition 2.0

-  Adopted as mandatory regulation for the river Rhine by the Central Commission for Navigation on the Rhine (CCNR) in 2006, all amendments of the EG until version 1.2.2 have been adopted, too
-  Adopted as recommendation for all inland waterways by the Economic Commission for Europe of the United Nations (UNECE) in 2007
-  Adopted as recommendation for the river Danube by the Danube Commission in 2008
-  The European Union planned to publish a binding regulation, but had internal problems (missing human resources)

Legal Status of Inland ENCs in Europe





Inland ECDIS Standard Edition 2.3 (latest edition)

-  Adopted and published by the Central Commission for Navigation on the Rhine (CCNR)
-  Adopted and published by the Economic Commission for Europe of the United Nations (UNECE)
-  The Danube Commission recommends to use always the latest version which is published by UNECE
-  The European Union has published this version as a binding Commission Regulation; IENCs have to be produced within 30 months after the publication for all inland waterways of the European Union of class Va and above (suited for vessels/convoys with a length of more than 85 m)

Commission Regulation

| Country | class | coverage | minimum content | updates | published | available for free | used version of standard |
|--------------------|--------------|--------------|-----------------|--|-------------------|---|--------------------------------|
| Austria | Va + | full (330) | yes | yes | yes | www.doris.bmvit.gv.at | 2.1 |
| Belgium (Flanders) | IV - Va + | full (472) | yes | 2013-2014 All charts will be updated | yes | http://ris.vlaanderen.be/html_nl/vaarkaarten/index.html www.vts-scheldt.net | 2.0 / 2.1 / 2.3 |
| Bulgaria | Va + | full | | | yes | www.appd-bg.org | 2.1 |
| Switzerland | Va + | full (Rhine) | | | yes | www.portofbasel.ch | 2.0 |
| Czech Rep. | IV | full (305) | yes | yes | yes | www.lavdis.cz | 2.0 |
| Germany | Va + | 3554/4000 km | yes | yes, every 4 years, and in special cases | yes | www.elwis.de , free webviewer http://wsvmapserv.wsv.bund.de/ol_lenc/ | 1.02, mostly 2.1 |
| France | Va + | 400 km | | | yes | www.vnf.fr/ecdis/ | 2.1 |
| Croatia | IV + | full | yes | planned for 2013 | yes | www.crup.hr | 2.1 |
| Hungary | Va + | full (379) | | | Yes(edition 2007) | www.pannonris.hu | 1.02, 2.1 in preparation |
| Luxemburg | Va + | | | | yes | no | 1.02 |
| Netherlands | IV + | 1700/2000 | no | planned (to 2.3) | yes | www.vaarweginformatie.nl | 2.1 (bathymetry added in 1.02) |
| Poland | Va + | full (100) | yes | update to 2.3 | planned | Not decided yet | 2.1 / 2.3 |
| Romania | Va + | full (1167) | yes | yes (monthly) | yes | www.afdj.ro /not free for Black Sea Canal | 2.1 |
| Serbia | Va + | full | | | yes | www.plovput.rs | 2.1 |
| Slovakia | Va + | full | | | under disc. | yes | 1.02 |
| Ukraine | Va + | full | | | yes | no | 1.02 and 2.1 |

Implementation of Inland ENCs in Europe

-  More than 11000 vessels equipped with Inland ENCs (6000 commercial vessels)
-  Three certified applications for navigation mode (with radar overlay, > 820 in use)
-  All applications are compatible with edition 2.0 and 2.1
-  Adaptation to edition 2.3 partly done, partly in preparation

Questions ?

More Information at: <http://www.ris.eu>

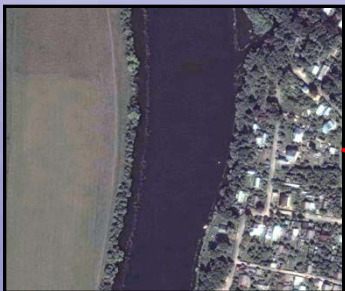
ВНУТРЕННИЕ ВОДНЫЕ ПУТИ РОССИЙСКОЙ ФЕДЕРАЦИИ



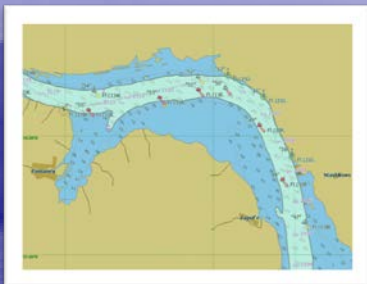
According to Federal Task Program on implementation of GLONASS on transport, 26 000 km of inland waterways were surveyed, equipped and covered with Inland ENC.



Survey data



Geodetic/Topo/Space data



Inland paper charts data

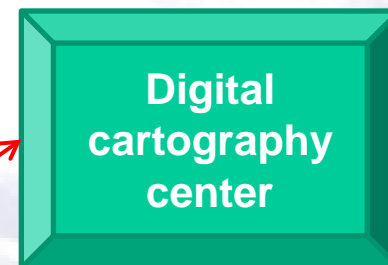


Descriptive data



Inland ENC creation\update

Inland ENC validation



Inland ENC



Inland ENC trial

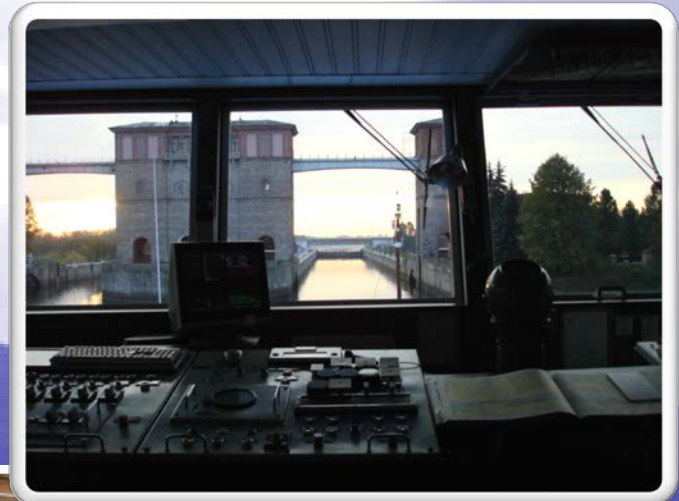




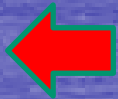
Inland ENC validation



Inland ENC trial



Inland ENC distribution



Do you have questions?