

**Inland ENC Harmonization Group
6th Annual Meeting
University of New Hampshire, USA**

October 8th – 10th 2008

Minutes of meeting

Participants:

Name	Affiliation
Lee Alexander	UNH
Michael Bergmann	Jeppesen Marine
Bernd Birkhuber	Ministry of Transport, Austria
Juan Carballini	Cledir SA
Dale Dodson	USACE
Ricardo Freire	CHM, Brazil
Chris Hudson	IIC Technologies
Peter Kluytenaar	Serendipity, Netherlands
Denise LaDue	USACE, USA
Flavia Mandarino	DHN, Brazil
Carlos M. Albuquerque	DHN, Brazil
Gustavo Puente	CARIS
Eric Rottmann	SevenCs
Ralph Scheid	USACE, USA
Ludwig Steinhuber	WSD Sud, Germany
Angel Terry	Jeppesen Marine
Kevin Twombly	ESRI

Vladimir Sekachev, Russia, could not take part due to other obligations, but provided a status report regarding inland ENCs in Russia before the meeting.

1. Welcome, Introductions of Participants
2. Organizational details (Lee Alexander)
3. Enlargement of the Core Group of IEHG
 - Tony Niles from the USACE has been replaced by Denise LaDue from the USACE as Co-Chair
 - Carlos Augusto Medeiros de Albuquerque will serve as Vice Chair and informed the IEHG, that the Inter-governmental commission for Rio Paraguay-Paraná (Argentina, Uruguay, Paraguay, Bolivia, Brazil) was presented the Inland ENC Harmonization subject during its last meeting. This matter will be discussed at the next meeting of the Adviser Naval Group (a subcommittee of Inter-governmental commission for Rio Paraguay-Paraná, composed by Hydrographic Services of Argentina, Uruguay, Paraguay, Bolivia, and Brazil) and the next SWAtHC meeting in March 2009..

- Carlos Albuquerque nominated Angel Terry, Jeppesen Marine, as Technical Coordinator for South America.

4. Status of legal and practical implementation in:

North America – Denise LaDue [Status_report_US.ppt]

- any new IENCs are now being produced based on IENC Product Spec 2.1
- existing IENCs will be “upgraded” during next two years.
- IENCs are updated monthly

Europe – Bernd Birkhuber [Status_report_Europe.ppt]

- The Inland ENC Product Specification 2.0 has been adopted by the Central Commission for Navigation on the Rhine (CCNR), the Economic Commission for Europe of the United Nations (UNECE) and the Danube Commission (DC).
- The Inland ENC Product Specification 2.1 has been transmitted to the organizations mentioned above and to the European Union and is in the process of adoption/publication.

Russia – Vladimir Sekachev [Status_report_Russia.ppt] (Bernd Birkhuber gave on his behalf)

- Regulations are in preparation.
- More than 5000 km of inland waterways will be covered by the end of the year.

South America (Brazil) – Ricardo Freire presented a detailed comparison of S-57 and Inland ENCs. [IEHG HYDRO.ppt]

- three of the copied attributes use an enumeration value, that is also used in S-57, but with a different meaning.
- this does not cause problems for applications, because the copied attributes have different codes and are therefore treated as different attributes; the 6-letter-acronyms are not stored in the Inland ENCs.
- an “alignment” of these three values with S-57 would lead to a new version of the Inland ENC Product Specification without backward compatibility.
- IEHG agreed therefore to keep the enumerations as they are until the Feature Catalogue and the Product Specification are fully aligned with S-100.

Flavia Mandarino presented the Brazilian complementary river aids to navigation for Inland ENCs [Brazilian_river_aids.ppt]

- the proposals for amendments of the Inland ENC Encoding Guide were discussed under agenda point change requests.

5. Information on experiences with Inland ENCs and applications by participating private companies;

CARIS – Gustavo Puente [CARIS S57 Composer v2_0.ppt]

- Explained what is the S-57 Composer v2.0 implementation for IENC supporting the versions 2.0 and 2.1

ESRI – Kevin Twombly

- support 2.0 and 2.1 IENC in the ESRI Nautical Solution

SevenCs – Eric Rottmann

- support 2.0 in the ENC Tools and 2.1 in a test version, that is already used by USACE and will be published soon.

Cledir – Juan Carbillini [PP Pres] and [PP Pres] (from Nov 2007 Iquitos, Peru Fluvial Navigation Workshop)

IIC – Chris Hudson

- producing Inland ENCs for USACE.

Jeppesen Marine – Michael Bergmann

- are implementing 2.1
- ongoing discussions with OEMs re: newest kernel
- customers are interested in consistent and reliable data; if inland/river vessels are using ECS, they need reliable service;
- harmonization should involve both data content and services (e.g., availability and reliability of updates), but harmonization of services can be done on the level of regions
- customers are really not concerned about “official vs. un-official” data; they are more concerned about coverage, availability and reliability
- may need some type of certification standard on “supply chain” (process and data quality)

6. Status of development of S-100 and future alignment of Inland ENC Product Specification with S-100 [pp Pres & info paper]

Questions to Barrie Greenslade re: Registry/Register

- a) When should IEHG replace the copied “lower case” objects and attributes with “UPPERCASE” objects and attributes in accordance with S-100 in the Encoding Guide? The group decided to wait for now, because S-100 has not been adopted yet.
- b) There is a need to contact Barrie Greenslade, UKHO, on better means to correct Inland ENC Register such that it aligns with IENC 2.1 Prod Spec. It contains currently out-of-date information from 2003 (not what is in IENC Prod Spec 2.1) and would require considerable manual effort to update (>100 man hours). IEHG proposes that the existing IENC register entries be completely deleted, and then use XML file (containing 2.1 objects/attributes) to re-populate.
- c) If copied features are still being used (i.e., in an IENC Product Spec), can they really be superseded or retired?
- d) Should we begin work on an IEHG Portrayal Register? The group decided to wait for now, because IHO has not made available any specifications for the portrayal register until now.

Action: Denise and Peter will contact Barrie

7. Activities of the new IHO Workgroup on “Hydrography and Cartography for Inland Waters”, and coordination with IEHG

- Denise LaDue presented the report of HCIWWG to CHRIS on behalf of Wesley Cavalheiro (who was at the MACH meeting) [9 MACHC_HCIWWG Presentation_2008.ppt]
- IEHG agreed to apply for the status of an accredited Non-Governmental International Organization (NGIO) at IHO. This would provide the possibility to take part in all relevant working groups, committees and conferences of IHO as an observer to ensure full compatibility of maritime and inland standards and the usability of Inland ENC's in applications on maritime vessels; IEHG Core Group will draft the letter to IHO.

Action: Lee will provide example letter. Bernd and Denise will draft IEHG letter to IHO. Before being sent, it will be posted on IEHG website, and circulated to members and participants for comment.

8. Updates to the Encoding Guide and Product Spec
[see also discussions on www.openecdis.org]

Use of **NATSUR**

- formal CR will be provided

Action: Bernd has all necessary data

Use of Tidal Features

- formal CR will be provided

Action: Peter

Complex Attributes

- IEHG is interested in use, but it is too early to make changes.

Action: Include in IEHG Report to CHRIS20

Use of Bathymetric and Gridded Data

- too early to develop at this time. Wait for S-100.

Action: Monitor developments by TSMAD.

catbrt – category of berth

- useful, but not urgent; implement later by amendments to Feature Catalogue

Action: Peter will provide amendments to CR

CR L.3.2 – delete real-world picture (it is a virtual object)

- adopted

Action: Denise

G.4.1 and L.1.2

- SCAMIN values for US (only) will be changed

Action: Denise

G.3.4 – All values for CATCRN will be added

Action: Denise

G.4.5. – correction of typing error

Action: Denise

Need new attribute for CATOBS (Category of Obstruction) = 11 (**Ice Breaker**)

Action: Denise

Notice Marks vs. Day Marks

- use Day marks for leading signs. Include graphics as shown by Brazil (also photos); use notice marks for other signs, including new values for catnmk and marsys; change description of Notice Marks (O.3.1) in order to include Brazilian use of it.

Brazil's notice mark proposals

- the encoding of the various signs for Rio Paraquay/Parana and Brazilian inland waterways was accomplished. Formal CR will be prepared with support provided by Denise and Bernd.

Action: Flavia

Need to include value for attribute COLOUR = 11 (Orange)

Formal CR will be provided

Action: Flavia

Need to include attribute CATPLE (and values = 1,3,4) in PILPNT feature

- Formal CR will be provided

Action: Flavia

Need to include value for attribute CATSPM (Category of Special Purpose Mark) = 16
(Leading Mark)

Formal CR will be provided

Action: Flavia

Correction of dirimp attribute values 3 and 4 definitions

Action: Bernd and Flavia

Use of BCNISD and BOYISD

- formal CR will be provided

Action: Flavia

Dataset Name

Formal CR will be provided to accommodate Brazilian situation

Action: Flavia

9. Standardized format for the transmission of water level information
see [water level report.ppt] and discussion at www.openecdis.org

- documents for proposal for standard are posted on OEF, and will become a new Annex of the IENC Encoding Guide

10. Future operation of:

- a) Open ECDIS Forum (OEF) website
- S-57 Producer Codes Register is being transferred to IHO website; will be a link between OEF website (www.openecdis.org) and IHO website.
 - IEHG web-based Discussion Forum will be “retired”; will be available as archive for one year

Action: Lee Alexander

- b) IENC.openecdis.org website
- e-mail based Forums will be available for Change Requests and general discussions.

EG Change Requests:

Subscription: <http://www.ienc.openecdis.org/cgi-bin/mailman/listinfo/egcr>

Archive: <http://ienc.openecdis.org/pipermail/egcr>

General discussions:

Subscription: <http://www.ienc.openecdis.org/cgi-bin/mailman/listinfo/ienc>

Archive: <http://ienc.openecdis.org/pipermail/ienc/>

Action: Eric Rottmann

11. Presentation on e-Navigation [get PP and Chart of Future videos] Lee Alexander

12. Next meeting

Vienna, Austria

Smart Rivers '21 conference (13-16 September 2009)

IEHG 7 – 16-18 Sept 2009 (Wed – Fri)

Issues/Suggestions, that have been discussed at the meeting without formal conclusions:

1. Would it be useful to put an “expiration date” into an IENC?
 - would inform users to keep in mind that new/more recent information is available
 - but, is this a responsibility of providers or users?
 - what is an appropriate time period?
2. River charts (www.rivercharts.info/forums), by David Webster provides a lot of feedback on Inland ENC's in the US
3. In USA rivers: could frequently changing river/waterway buoys be published as RIOs?
4. Should there be a standardized “System” IENC format?
 - Is this something that IEHG should issue guidance? So far IEHG is only dealing with the data standard, not with standards for applications.
 - Should IEHG make a statement re: need for (or benefits of) compliance the ISO Database Standard? (i.e., compliance with data quality standards)
 - What about other formats that are not based on IHO S-57/IENC Product Spec? (e.g., TX-97, CM-93).
 - This is a topic that needs further consideration
5. Waterway codes
 - each country can decide (on its own) what character code to use
 - they are listed at the ienc.openecdis.org
6. What type of electronic chart equipment use IENC data?
 - Inland ECDIS
 - Inland ECDIS in ECS mode
 - ECS
 - impacts of type approval, carriage requirements, regulations, etc.
7. Co-production of IENCs and paper charts (one database → multiple products)
8. MIO and RIOs what level of involvement should IEHG have?
 - data focus for now, but also that supplemental info is increasingly important
9. Potential future IENC Product Spec: “Fluvial ENC” for very fast changing rivers
 - minimum content (location/depth of channel, river bank, date, etc.)
 - the frequency of producing the Fluvial ENC is more important than the level of detail
 - overlays can show current situation.
10. Complex attributes (as part of S-100)
 - communicate to IHO that IEHG is interested in doing this
11. There is no need to develop a depth area/safety contour line MIO/RIO for IENCs. This is something that should be accommodated by the IENC.