Inland ENC Harmonization Group

12th Annual Meeting

October 7th – 9th 2014

Berlin, Germany

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Participants

Name	Affiliation
Bernd BIRKLHUBER	Ministry of Transport, AT
Nils BRAUNROTH	Bundesministerium für Verkehr und digitale Infrastruktur, DE
CHEN Xuan	China Waterborne Transportation Institute
David D'AQUINO	Jeppesen
Tom DEPUYT	Esri
Hendrik HAMPE	Bundesministerium für Verkehr und digitale Infrastruktur, DE
Wieland HAUPT	Fachstelle fuer Geoinformation Sued, DE
Jo JACOBS	TRESCO Engineering
Denise LADUE	US Army Corps of Engineers, US
LIU Li	China Waterborne Transportation Institute
Flavia MANDARINO	DHN, BR
Cameron MCLEAY	Caris
Gert MORLION	NV De Scheepvaart, BE
Pierpaolo PANESI	Jeppesen
Tina PAPENFUSS	Caris
Bojan RASHKOV	Bulgarian ports infrastructure company
László REDLY	TER-TEAM Kft, HU
Eric ROTTMANN	SevenCs
Birgitta SCHÄFER	Bundesministerium für Verkehr und digitale Infrastruktur, DE
Angel TERRY	Jeppesen Marine
René VISSER	WVL, NL
Rolf ZENTGRAF	Bundesanstalt für Wasserbau

Minutes of the meeting

(Basic presentation: IEHG_2014.pdf)

1. Welcome, Introductions of Participants, organizational details

Denise LaDue and Bernd Birklhuber welcomed the participants. Bernd Birklhuber thanked Birgitta Schäfer and Wieland Haupt for the organization of the meeting.

2. Inland ENCs and IEHG

This presentation was skipped because no new countries were present

Update on the legal and organizational background and the status of implementation:

- USA (USACE_Status-report-2014.pdf) — Denise LaDue
- Europe (Status_report_Europe_2014.pdf) — Bernd Birklhuber

- Brazil (Inland ENC - Brasil SET 2014.pdf) — Flavia Mandarino
- China (China IENC Status-20141006.pdf) — Liu Li

Formatiert: Französisch (Frankreich)

Flavia Mandarino made a presentation to the South West Atlantic Hydrographic Commission regarding the IEHG and IENCs using the Spanish version of the IENC and IEHG powerpoint presentation which is available on the IEHG website. Interest was expressed; however no further action has been taken by participating countries.

China: Three (3) different charting standards presently being used, however the China National IENC standard is being developed which will later be aligned with the IEHG Inland ENC standard, potentially in 2015.

IENC Production Overview on the IEHG website.
- Planned chart production (names of waterways & no. of km)
- Completed chart production (names of waterways & no. of km)
- Information about the availability (e.g., from website)

Action Item: Please provide an email to Bernd containing updates to the information.

3. Presentations by new participants about their river/inland waterway network, navigation and cartography

The agenda point was skipped because no new countries were present.

4. Presentation of Inland ENC applications by private companies

- SevenCs — Eric Rottman
  - Tools are still supporting 2.3
  - SeeMyENC also supports 2.3
- Esri — Tom Depuyt
  - Currently updating software to 2.3
- Jeppesen (Jeppesen - dKart Editor 3.1 SP2 – IENC.pdf) — Angel Terry
  - dKart Editor (3.1.2) supports IENCs
  - Inspector (6.1) also supports IENCs
- Caris (CARIS_IEHG_2014.pdf) — Cameron McLeay
  - Portrayal catalogue builder being built for IHO
  - US Hydro 2015 – S-100 Workshop
- Tresco — Jo Jacobs

Action Item: IEHG website contains a list of both National Organizations and Private Companies involved with IENCs. If not listed, please provide web address to Bernd for inclusion on the website.

5. Working methods of IEHG

The agenda point was skipped because no new countries were present.

6. Election of the Core Group of IEHG

- Co-Chairs: Denise LaDue and Bernd Birklhuber were confirmed as Co-Chairs.
- Vice Chairs: Flavia Mandarino and Fei Weijun were confirmed as Vice Chairs.
- Technical Coordinators: Brian Tetreault, Pieta Kluytenaar, Angel Terry and Yong Baek were confirmed as Technical Coordinators.

- IEHG Representatives in the S-100 Domain & S-100 Executive Control Bodies: Denise LaDue and Pieta Kluytenaar were confirmed as the representatives.

7. Updates to the Encoding Guide and Product Specification

- Adopted Documents (since IEHG XI)
  - Inland ENC Encoding Guide, edition 2.3.6
  - Recommended Validation Checks for inland ENCS edition 2.3.1

- Change Requests (since IEHG XI)

O.2.x	Adopted, will become part of IENC 2.4
G.3.11	Adopted, included in EG 2.3.6
O.1.5	Adopted, included in EG 2.3.6
N.1.x	Adopted, will become part of IENC 2.4
O.1.5	Adopted, included in EG 2.3.6
B.H	Adopted, included in EG 2.3.6
Annex AF	Adopted, included in EG 2.3.6
C.1.5	Adopted, will become part of IENC 2.4
G.1.9	Adopted, will become part of IENC 2.4
M.4.1	Adopted, will become part of IENC 2.4
N.1.3	Adopted, will become part of IENC 2.4
G.4.9	Adopted, will become part of IENC 2.4
H.1.2	Adopted, will become part of IENC 2.4
O.2.x	CR will be amended by W. Haupt and if adopted, will become part of IEHG S-401
J.3.1	Adopted, will become part of IENC 2.4
R.4.1	Shore Supplies – Gert Morlion will re-submit a new CR for G.3.3 Power Supply Station. If adopted, will become part of IENC 2.4.
FC	Amend clsdng = 4. Adopted, will become part of IENC 2.4
M.4.6	Adopted if no veto before 20141020, will become part of IENC 2.4
FC	Amend catnmk. Adopted if no veto before 20141020, will become part of IENC 2.4

  For the results of the discussions see (CR_collected_2014.pdf).

- Corrections to Feature Catalogue definitions and remarks (typographical and grammatical errors; no change to content) (Corrections to S-57 Encoding Guide Edition 20140829.pdf)

- Overview Change Requests for 2.4 (Overview_CRs_2011-present.pdf)

- CRs 2012 (CR_affecting_FC_2012.pdf)

- CRs 2013 (CR_affecting_FC_2013.pdf)

8. Update intervals and processes

The meeting discussed when the next version of the Encoding Guide and the next edition of the Product Specification and the Feature Catalogue should be published. It is anticipated that China will be

submitting CRs (which would affect the Feature Catalogue), however the timeframe for submittal is not anticipated to occur within the year, so it was decided to publish Edition 2.4 in January 2015, which will include all CRs adopted before the end of 2014.

Action item: Denise LaDue to produce version 2.4 of the Inland ENC EG and FC at the beginning of 2015.

Action item: All members of IEHG are invited to submit CRs before 30 November 2014 for inclusion in Edition 2.4 of the Product Specification. Only change requests which are adopted before 11 January 2015 will be included.

9. Quality Standards for Inland ENCs

- Recommended validation checks for IENCs (2.3 corr2) → will become 2.4 to be adopted at IEHG XIII (2015)
  Action Item: Check for email from Jeppesen regarding discrepancies

- Minimum Content of Inland ENCs
  - Applicable for Europe, but columns on updates and accuracy were determined not to be applicable for other regions.

- Accuracy information in IENCs – development for S-101
  - IHO Data Quality Working Group is pursuing this activity
  - Recommendation to wait for results from IHO prior to adopting or pursuing this endeavor.

10. Flow Velocity Information of River Systems Rolf Zentgraf
(2014-10-06-IEHG-Berlin-flowvelocity.pdf)

- Object class 'curent' for static information about the velocity at defined water levels
- Standardized XML data exchange format for water level and velocity information for dynamic information about the velocity at the actual water level

Action Item: Germany has been invited to present the results of the test at IEHG XIII.

11. Status of development of S-99, S-100 and S-101 and future alignment of Inland ENC Product Specification with these standards

- Product Specification Identifier
  - HSSC 5 decided to assign blocks of S-numbers to partner organizations
  - IEHG will officially be IEHG S-401.

- CoRISMa project has funded initial development of S-100 alignment (S_101_Alignment_20141006.pdf)

  Portrayal
  - Alignment with S-101
    - IEHG will follow the approach of S-101
    - Focus will be on unique inland specific objects
    - EU standard will be starting point for the discussion
    - Different symbols for the same object in different regions will also be required (e.g. notice marks)
    - The symbols for point objects presented by Europe were adopted with small amendments (see Inland specific symbols of the European Inland ECDIS

standard_02.pdf). The symbols for point objects on South American inland waterways presented by Brazil were adopted (Inland ENC Symbols Brazil 1.0.0.pdf)
- New proposals or recommendations for change should be submitted on the IEHG Discussion Forum under "S-100 topics"

Action Point: Laszlo to delete all S-57 objects from IENC Legend 1.0.4 so that we will have a reduced number of symbols to decide upon for lines and areas.

- Raster or vector
  - S-101 will use vector in SVG
  - IEHG has decided to follow that protocol
  - Symbol size can be adjustable based on user input and screen size
  - Apply a scale factor to the symbols to allow for adjustment.

- Display Priorities
  - Every symbol has its own display priority
  - The use of Offset in S-101
    - Multiple symbols (notice marks) at the same location
    - Only one visible at a time
    - Options for resolution
      - Rotate the symbols
      - Offset the symbols
- Tasks
  - Production of the symbols in SVG format (CoRISMa)
  - Symbol size, conditional symbology:
    - Further investigation
    - Discussion and decision
  - Establishment of an Inland ENC Portrayal Domain in S-100
    - Must wait until the S-101 portrayal domain is established
  - Registration of all inland specific symbols
  - Creation of a Portrayal Catalogue with the PC builder
    - Will have to wait until the catalogue builder is ready

Feature Catalogue
- Historical Approach
  - Encoding Guide has been the central element of standardization – only the attributes and enumerations mentioned in the EG were included in the FC
- Alternate Approaches
  - Only elements described in EG
    - Full harmonization, but restrictive
  - Include complete S-101 FC in the inland FC
    - Harmonized IENCs only if DCEG is used in addition to EG
  - Only the features of S-101 which are described in the EG but all attributes and enumeration of S-101 + inland specific elements
  - Two FCs: A complete FC for the applications on board and restricted FC for the chart production software
- Adopted Approach at IEHG XII
  - Only the features of S-101 which are described in the EG but all attributes and enumeration of S-101 features and all inland specific elements
  - IEHG will continue to use the Encoding Guide as the central element of standardization. Any S-101 enumerated value used in the production of IENCs which is not specifically listed in the EG will be allowed, however a Change Request should be submitted to ensure its inclusion toward standardization.
  - IEHG has decided to follow S-101 as far as possible to ensure compatibility

- IEHG will use the FC builder within the IHO S-100 Registry upon availability
- A thorough review of the IENC Feature Catalogue was started in an effort to align the existing IENC FC (Edition 2.3 corr2) with the S-101 Data Classification and Encoding Guide (DCEG).
    - The changes which affect several object classes were reviewed during the meeting and decisions made regarding the applicability to IEHG (Discussion document S_57_Object_classes.pdf)
    - All S-101 features were reviewed during the meeting and decisions made regarding the applicability to IEHG (FC_2.3_corr2_S_101_Features.doc)

  Action Items: By 21 NOV 2014 - Continue to review:
    - FC_2.3_corr2_Inland_spec_Features.docx
    - FC_2.3_corr2_S_101_Attributes.doc

  CoRISMa will provide a list of S-101 features currently not used in IENCs. All IEHG members will be asked to review the list and to indicate features which might be needed for IENCs in the future.

Main Document (Product Specification)

- Utilize S-101 as the basis for the IENC Production Specification
    - S-101 as main document

      Action Item: CoRISMa to develop a draft for IEHG 2015

12. S-57 to S-100 convert Development

(IEHG Berlin S-57 to S-101 Convertor Update.pdf)

Tom DePuyt

- Feature Catalogue Schema (Baseline document for the tool is April version of DCEG)
    - Information Types
    - Information Associations
    - Feature Records
    - Feature Associations
    - 8211 Changes accounted for

- Hard codes
    - Some items hard coded into the tool
    - Header data

- S-101 Converter
    - Choose file or files
    - Select Output
    - Process
    - Provides warnings for features that could not be mapped

- Next Phase (February TSMAD)
    - Feature Catalogue
    - Feature Catalogue Mapping Table
    - Production System Calculations
    - Research Conversion of Updates (priority dropped)

Action Items: To accommodate IEHG, additional values will need to be added to lookup tables. Question for TSMAD – TOPMAR needs additional sub-attributes COLPAT and COLOUR as a list field for inclusion as a complex attribute; is it possible?

13. Portrayal Domain and Specification for Inland ENCs

Once available, IEHG will establish a portrayal domain and register all inland specific symbols and use the Portrayal Catalogue Builder to create the IEHG Portrayal Catalogue.

14. Use of USAGE and SCAMIN in Inland ENCs

No new developments. The topic is closed and will not be on the agenda of the next meeting unless there is a specific request.

15. Annual Report to HSSC about IEHG

IEHG is recognized as a NGIO with observer status by IHO and is therefore presenting a report on the status of Inland ENC standardization and implementation each year to HSSC.

Action points: LaDue to prepare the report to HSSC and a ppt presentation immediately after the meeting.

16. Updates of the Information documents on Inland ENCs

No new developments.

Action point: All members of IEHG are invited to submit proposals for amendments of the information document on Inland ENCs (Inland ENC.ppt on the IEHG website).

17. Future operation of the:

- IEHG Website (http://ienc.openecdis.org)
    - Bernd Birklhuber informed the meeting that the website is funded by the European Union and hosted by the company Periskal

- Discussion Forum for Inland ENCs (http://operations.usace.army.mil/nav/IEHG/start.cfm?Option=Login)
    - Denise LaDue informed the meeting that the USACE is continuing to operate the discussion forum.

- IENC domain (as part of S-100 Registry)
    - Denise LaDue informed the meeting that the operation of the IENC domain is guaranteed.

Action point: IENC on-line Feature Catalogue to be added to the IEHG (ienc.openecdis.org) website (Denise LaDue)

18. Any other business

Action points:

- Post updated CR for Power Supply Station on the Forum (Gert)
- Update list of CR (Bernd)
- Invite all members to transmit CRs for ed. 2.4 (deadline for submission 30 Nov 2014 (with adoption 11 Jan 20015))
- Update FC and EG (Denise)
- Update Recommended validation checks (Bernd, adoption IEHG 2015)
- Report to HSSC (Denise)

Formatiert: Deutsch (Österreich)

- Inland ENC.ppt (Bernd, input from everybody, Gustavo for Spanish)
- Keep track of S-101 developments and the consequences for IENCS (Cameron, Tom, Angel, CoRISMa)

19. Next meeting

According to the principle of rotation the next meeting should be in Russia, however Russia presently has no active member in the IEHG. Fei Weijun has been asked as to whether China would be interested in hosting the next meeting. Weijun has indicated that he will consult with his organization to determine whether China will be able to host the meeting. Weijun has informed the IEHG that he will provide a response by the end of the year. Flavia Mandarino has offered that Brazil may be able to host the next meeting if China is unable to do so. Potential Dates: (weeks 38-43)

Action point: Fe Weijun to inform the IEHG by the end of the year the possibility of China to host. The Core Group will develop the detailed agenda for the next meeting.