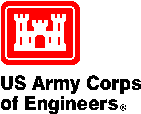


**11th Annual Meeting**

**October 15th – 17th 2013**

**New Jersey, USA**

**Inland ENC Harmonization Group**

**11th Annual Meeting**

**October 15th – 17th 2013**

**Location:**

**Courtyard Secaucus Meadowlands**

455 Harmon Meadow Boulevard

Secaucus, New Jersey 07094

Tel.: 1-201-617-8888

Web site: http://www.marriott.com/hotels/travel/ewrse-courtyard-secaucus-meadowlands/

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Mobile phone: 1-502-415-8228

**Draft Agenda of the IEHG meeting**

1. Welcome, Introductions of Participants, organizational details Denise LaDue  
    Bernd Birklhuber, all
2. Presentation on Inland ENCs and IEHG – Overview Bernd Birklhuber  
   [only if new countries participating]   
     
   Update on the legal and organizational background   
   and the status of implementation in  
   U.S. Denise LaDue  
   Europe Bernd Birklhuber  
   Brazil Flavia Mandarino  
   China Gu Qun and Liu Li
3. Presentations by the new participants about their   
   river/inland waterway network, navigation and cartography:   
   India Phrashant Srivastava?
4. Presentation of Inland ENC applications by private companies  
   Caris HPD & IENCs Cameron McLeay
5. Working methods of IEHG [only if new countries participating] Bernd Birklhuber
6. Election of the Core Group of IEHG all  
     
   Election of the chairs all  
     
   Amendment of the Terms of Reference  
   [only if new countries participating] Bernd Birklhuber  
   Election of the representatives of IEHG in the Domain Control Body   
   and the Executive Control Body of S-100 all  
     
   Update of the Introduction of the Encoding Guide for Inland ENCs  
   [only if new countries participating] Bernd Birklhuber
7. Annual Report to HSSC about IEHG Lee Alexander
8. Status of development of S-99, S-100 and S-101 and future alignment Julia Powell, Denise   
   of Inland ENC Product Specification with these standards LaDue, all  
     
   Discussion:  
   - of the advantages and disadvantages of the use of complex attributes Bernd Birklhuber, all  
   - of display scales and the use of scale independent datasets Bernd Birklhuber, all  
   - of the use of the new type “composition” in IENCs Bernd Birklhuber, all  
   - S-100 Feature Catalogue Builder Denise LaDue  
   - S-100 Product Specification Identifier for IEHG Denise LaDue
9. S-57 to S-100 converter development ???
10. Updates to the Encoding Guide and Product Spec all
11. Update intervals and processes all
12. Portrayal domain and specification for Inland ENCs all  
      
    symbology / representation of features – should the IEHG provide more  
    guidance than is presently offered in the Inland ECDIS (EU) standard? Denise LaDue
13. Proposals for quality standards for Inland ENCs  
      
    recommended validation checks for Inland ENCs (based on S-58) Wieland Haupt?  
      
    minimum content of Inland ENCs Pieta Kluytenaar?  
      
    accuracy information in Inland ENCs Pieta Kluytenaar?  
    development for S-101? Bernd Birklhuber?
14. The use of web services for the publication of Inland ENCs Wieland Haupt
15. The use of AIS AtoN messages in inland navigation Denise LaDue/Brian Tetreault  
    Encoding in Inland ENCs and display Bernd Birklhuber  
     Damir Obad
16. Use of USAGE and SCAMIN in Inland ENCs? Pieta Kluytenaar?
17. Updates of the Information documents on Inland ENCs Lee Alexander  
    (Inland ENC.doc and Inland ENC.ppt) Bernd Birklhuber  
      
    Article for HYDRO International Lee Alexander
18. Future operation of:  
      
    the ienc.openecdis.org website Bernd Birklhuber  
      
    discussion forum for Inland ENCs Denise LaDue  
       
    IENC Register (as part of S-100 Registry) Denise LaDue  
     Pieta Kluytenaar
19. Any other business all

- How to encourage more countries/regions to join IEHG

- South America

- East Asia

1. Next meeting – Date and Location

**Preliminary time schedule:**

**October 15th 2013**

09:00 - 11:00 morning session

11:00 - 11:20 coffee break

11:20 - 13:00 midday session

13:00 - 14:00 lunch break

14:00 - 15:30 afternoon session

15:30 - 15:50 coffee break

15:50 - 17:30 continuation of afternoon session

**October 16th 2013**

09:00 - 11:00 morning session

11:00 - 11:20 coffee break

11:20 - 13:00 midday session

13:00 - 14:00 lunch break

[14:00 - 17:30 excursion Hudson River]  
or  
[14:00 - 15:30 afternoon session

15:30 - 15:50 coffee break

15:50 - 17:30 continuation of afternoon session]

**October 17th 2013**

09:00 - 11:00 morning session

11:00 - 11:20 coffee break

11:20 - 13:00 midday session

13:00 - 14:00 lunch break

[14:00 - work of the Core Group on the conclusions of the meeting]

**Participants of 11th IEHG meeting:**

|  |  |  |  |
| --- | --- | --- | --- |
| Lee ALEXANDER | Univ. of New Hampshire | 1-603-866-2822 | leealex@ccom.unh.edu |
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| GU Qun | China Waterborn Transportation Institute |  | guqun@wti.ac.cn |
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| Pieta KLUYTENAAR | Serendipity UnLtd | +31653207018 | pieta@serendipity.nl |
| Denise LaDue | US Army Corps of Engineers | 1-502-415-8228 | denise.r.ladue@usace.army.mil |
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| Baocen YANG | Changjiang Waterway Bureau, China |  | yangbaocen@gmail.com |
| ? | IWAI, NOIDA |  |  |

**Annex**

**Agenda points 1 to 5** should provide an introduction to the work of the Inland ENC Harmonization Group (IEHG) for new participants and provide the possibility for new participants to inform the group about their river/inland waterway network, navigation and cartography. The individual presentations should have a maximum length of 20 minutes.  
If there are no new countries participating the agenda points will only deal with updates regarding the status of implementation.

**Ad Agenda point 6**

**Election of chairs**

According to the Terms of Reference of IEHG the group is electing chairpersons, vice-chairs and technical coordinators by simple majority vote. The Core Group consists of

1) Chair – Two persons (co-chairs) each from a different region. Only representatives of waterway authorities can become chairpersons.

2) One vice-chair from each region, which is not already a chair.

3) Technical Coordinators - One technical coordinator for each region.

Currently the Chairs are Denise LaDue (North America) and Bernd Birklhuber (Europe), the Vice Chairs are Flavia Mandarino (South America) and Fei Weijun (Asia).

The technical coordinators are Lee Alexander (North America), Yong Baek (Asia), Pieta Kluytenaar (Europe), Vladimir Sekachev (Russia) and Angel Terry (South America).

The meeting should confirm the current Core Group members or elect new members. Each region can elect its technical coordinator and its candidate for chair/vice chair. The whole group is electing the two chairs from the group of the candidates.

**Amendment of the Terms of Reference**

There might be requests for amendments of the Terms of Reference of IEHG (available at <http://ienc.openecdis.org/?q=node/19>)

**Election of the representatives of IEHG in the Domain Control Body   
and the Executive Control Body of S-100**

IEHG is the owner of the Inland ENC domain in the S-100 registry and has to nominate representatives for the Domain Control Body and the Executive Control Body of S-100 in accordance with S-99. Currently Denise LaDue and Pieta Kluytenaar are the representatives. IEHG should confirm the current representatives or elect new representatives.

**Update of the Introduction of the Encoding Guide for Inland ENCs**

The Introduction section of the Encoding Guide for Inland ENCs is containing a short history of IEHG. It should be updated if new countries have joined IEHG.

**Ad Agenda point 7**

**Annual Report to HSSC about IEHG**

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

**Ad Agenda point 8**

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

IEHG is planning to align the Product Specification for Inland ENCs (which is currently based on S-57 edition 3.1) with S-101 as soon as the maritime Product Specification is finalized. The meeting might discuss when the drafting of the new version should be started and who might be involved in the drafting of the documents. It would be most welcome if someone who is directly involved in the development of S-101 would be able to contribute to the work.

S-101 will provide the possibility to use **complex attributes**. In many cases existing simple attributes are replaced by complex attributes which are able to provide better information. Examples:

- the attributes INFORM and NINFOM are replaced by the complex attribute information with the sub-attributes text and language (encoded in accordance with ISO 639-3, optional);

- the simple attributes for all kinds of clearances are replaced by complex attributes with the sub-attributes clearance and distance uncertainty (optional);

As the new complex attributes are able to provide better information and an automatic conversion of the existing simple attributes is possible it is proposed to use these complex attributes also for the future Inland ENCs.

Complex attributes can also be used to replace combinations of object classes with a master slave relation (example: a buoy with a topmark and a light is currently encoded as a boylat as master object and TOPMAR and LIGHTS objects as slaves) with one object with complex attributes (example: buoy, topmark and lights; each of the complex attributes would have the same attributes as the current object classes). S-101 is going to replace the object class TOPMAR with a complex attribute topmark, but will still use LIGHTS as slave objects. IEHG could discuss the advantages and disadvantages of this approach and decide which master slave relations should be replaced by complex attributes.

S-101 will also use a new concept of **display scales** and will make use of **scale independent datasets**. Inland ENCs are normally not produced in different display scales. IEHG could discuss whether the new concept of scale independent datasets should be used for Inland ENCs. IEHG could also discuss whether it would be useful to investigate the possibility to replace “overlay cells” with “scale independent datasets” in order to align the Inland ENCs with the maritime S-101 ENCs.

S-101 will introduce the new **type “composition”**. IEHG could discuss the advantages and disadvantages of this new type and whether it should be used in Inland ENCs.

IHO is working on the development of a **S-100 Feature Catalogue Builder**. IEHG could discuss whether it should be used for future Inland ENC Product Specifications.

The new Product Specification for Inland ENCs will also need an **Identifier** (e.g. IEHG-101). IEHG has already been in contact with IHO and IHO is discussing which Identifiers should be used for external Product Specifications.

**Ad Agenda point 9**

**S-57 to S-100 converter development**

IEHG has been informed about the development of a converter for S-57 datasets to S-101 for test purposes. The information might be updated.

**Ad Agenda point 10**

**Updates to the Encoding Guide and Product Specification**

Change Requests for the Encoding Guide or the Product Specification should be transmitted at least six weeks before the meeting (i.e. before 1st September 2013). If everybody agrees with the Change Requests they are adopted before the meeting. If there are objections the Change Requests can be discussed at the meeting. The meeting will try to find solutions for those CRs. The proposals of the meeting will be distributed via the discussion forum and will be adopted within a period of six weeks after the meeting.

**Ad Agenda point 11**

**Update intervals and processes**

The procedure for the adoption of Change Requests is defined in the Terms of Reference of IEHG (available at <http://ienc.openecdis.org/?q=node/19>).

If IEHG decides to publish a new edition of the Product Specification and the Encoding Guide or a new version of the Encoding Guide only it might discuss the time schedule for the publication and the implementation and use of the new edition/version.

**Ad Agenda point 12**

**Portrayal domain and specification for Inland ENCs**

Up to now IEHG has only dealt with the harmonization of Inland ENCs. There were different standards for the display of these charts in the various regions (e.g. the “Inland ECDIS standard” in Europe), because inland vessels do not travel from one region to another.

At the 8th meeting IEHG decided to set up an Inland portrayal domain within the S-100 registry, because one of the goals of IEHG is to ensure that maritime vessels are able to use Inland ENCs when they are using inland waterways. The development of this new domain has to be based on the portrayal domain for maritime ENCs, which was still under development last year.

IEHG might discuss how to establish cooperation respectively a transfer of knowledge from the working groups of IHO which are dealing with portrayal to IEHG. IEHG might also discuss how to develop a proposal for a portrayal standard and might set up a small task force for this task.

**Ad Agenda point 13**

**Proposals for quality standards for Inland ENCs**

* **Recommended validation checks for Inland ENCs** (based on S-58)  
  IEHG has developed and adopted “Recommended Validation Checks for Inland ENCs, edition 1.1” which are based on S-58 and edition 2.1 of the Product Specification for Inland ENCs.   
  IEHG has also developed and adopted “Recommended Validation Checks for Inland ENCs, edition 2.3” which are based on S-58 and edition 2.3 of the Product Specification for Inland ENCs.
* **Minimum content of Inland ENCs and Minimum accuracy requirements**  
  The minimum content of an Inland ENC is specified in the Introduction of the Encoding Guide for Inland ENCs. Experience has shown that this rather abstract definition is not sufficient if an authority contracts a private chart producer for the production of official Inland ENCs. A European task force has developed a proposal for a more detailed specification of the minimum content and an Excel sheet which is also containing minimum accuracy requirements and update requirements. This Excel sheet is used as a recommendation in Europe. USACE is working on the implementation of this overview in the database which is also used for the production of the Feature Catalogue and the Encoding Guide for Inland ENCs.
* 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 might discuss how to improve the information.  
  IHO is currently discussing the same topic. A detailed proposal was expected for mid 2013.  
  IEHG might discuss the results of IHO.

**Ad Agenda point 14**

**The use of web services for the publication of Inland ENCs**

Germany has implemented web services for the publication of Inland ENCs and a work package within the European project IRIS Europe 3 is dealing with further developments of web services. IEHG could be informed about the status and could discuss whether there is a need for international standardization.

**Ad Agenda point 15**

**The use of AIS AtoN messages in inland navigation**

AIS is providing the possibility to send Aids to Navigation (AtoN) messages. The messages can be sent from AIS transponders on real buoys, but they can also be sent from land installations (virtual buoys). The US as well as European countries are currently testing the use of these messages in inland navigation. Both sides are going to inform about their experiences.

**Ad Agenda point 16**

**Use of USAGE and SCAMIN in Inland ENCs**

Pieta Kluytenaar has presented some problems and ideas regarding the use of USAGE and SCAMIN in Inland ENCs at the meeting of IEHG in 2010. There might be new developments which should be discussed with a view to possible amendments of the Encoding Guide for Inland ENCs.

**Ad Agenda point 17**

**Updates of the Information documents on Inland ENCs (Inland ENC.doc and Inland ENC.ppt)**

IEHG has agreed on an information document (Inland ENC.ppt, available at <http://ienc.openecdis.org/?q=node/19>) on Inland ENCs and the Inland ENC Harmonization Group (IEHG). It was proposed to develop also a text document. The meeting might discuss amendments of the information documents to take the latest developments into account.

IEHG could also discuss whether it would be useful to draft an article for HYDRO International.

**Ad Agenda point 18**

**Future operation of the ienc.openecdis.org website**

The website of IEHG has been hosted by the PLATINA project of the European Union and is hosted by the PLATINA 2 project from autumn 2013 onward. The meeting might discuss the latest developments and possible improvements of the content of the website.

**Future operation of the discussion forum for Inland ENCs**

The discussion forum is currently hosted by the USACE. The meeting might discuss possible improvements in the discussion forum.

**Future operation of the IENC Domain (as part of S-100 Registry)**

IEHG has set up an Inland ENC domain in the supplementary register of the S-100 Registry (see <http://registry.iho.int/s100_gi_registry/FeatureConceptDics/fcd_home.php?register_type=2> ). The meeting might discuss possible improvements.