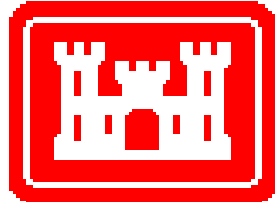




## **15<sup>th</sup> Annual Meeting**

**October 22<sup>nd</sup> – 24<sup>th</sup> 2019**

**New Orleans, USA**



**Participants of 15<sup>th</sup> IEHG meeting:**

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## Minutes of the meeting

[Basic presentation: IEHG\_2019.pdf]

### 1. Welcome, Introductions of Participants, organizational details

Denise LaDue opened the meeting and welcomed the participants. Bernd Birkhuber thanked her on behalf of the group for the hosting of the meeting and the organization.

The participants introduced themselves.

The draft agenda was adopted without amendments [IEHG\_XV\_Agenda.pdf]

### 2. Update on the legal and organizational background and the status of implementation:

Jose Celso presented the status of implementation in Brazil [Inland ENC BR.pdf]

- DHN publishes all charts
- Electronic publications are published by other organizations
- Madeirs River IENC under construction
- Paraguay River – 36 IENC cells completed – available free for download

Liu Li presented the status of implementation in China [IEHG-China-2019.pdf] and announced the submission of Change Requests to include the specific signs and signals in the Product Specification for Inland ENCs for 2020.

- IENC Production Status
  - o Sino russian boundary river – 660 km
  - o Heilongjiang River – 1090km
  - o Yangtze River – 2746.6km
  - o Pearl River – 1221 km
- National IENC Standard Content
  - o Chinese National Standard is complete
  - o 8 parts and 3 appendices

**Action point:** China to submit change requests for specific signs and markings

Wieland Haupt presented the status of implementation in Europe [IEHG\_2019\_Status\_Report\_Europe.pdf]

- No centralized gov't – processes are complicated
- Complete Inland ECDIS standard
- IENC 2.4 published as regulation of the European Union in Dec. 2018
  - o All countries have produced to 2.3
  - o 2021 all must be converted to 2.4
- 7 Corridors in EU that require coordination between countries
- Within the RIS Comex project some new AIS messages are tested
  - o Use of area/geographic notice during cable ferry crossing
  - o Line for RECTRC in areas that change quickly
  - o Geographic Notice when water levels are high enough that bridge clearances are critically low
  - o How do you apply a direction of impact on AIS messaging?

Denise LaDue presented the status of implementation in the U.S. [Status\_Report\_US\_2019.pdf].

- IENCs produced to 2.3
- Overlay with buoys, new editions regularly, no updates
- Using heatmaps from AIS to define recommended tracks

The chair reminded everybody that an overview of the status of implementation with the names and km of waterways covered by IENCs and the used edition of the standard is published at <http://ienc.openecdis.org>.

**Action point:** Please provide an email to [bernd.birkhuber@bmvit.gv.at](mailto:bernd.birkhuber@bmvit.gv.at) containing updates to the information on the status of implementation.

3. Presentations by the new participants about their river/inland waterway network, navigation and cartography [only if new countries participating]

#### 4. **Presentation of Inland ENC applications by private companies**

Tom DePuyt presented the applications of ESRI [ArcGIS for Maritime IEHG15.pdf]

- BIS Service
  - o <https://chartondemand.esri.com/Bathy>
- Products on Demand
  - o <https://chartondemand.esri.com/ipod/>
- <https://esriho.maps.arcgis.com/home/index.html>
- S-57 converter included

Gael Billet presented the applications of Periskal [1910 - IEHG - Periskal Group.pdf]

- Over 9,000 inland barges using Periskal Inland ECDIS
- Producer of IENCs
- Shore Based Infrastructure – setting up antennas, etc.
- On Board Solutions
- AIS Bridge clearances

Friedhelm Moggert-Kägerler presented the applications of SevenCs [7Cs-IEHGmeetingNewOrl2019.pdf]

- Everything is related to products and services related to ECDIS
- 7Cs Analyzer is already supporting S-101 as a testbed for IHO
- FME interface for feature import

Cameron McLeay and Mike Redmayne presented the applications of Caris Teledyne [CARIS - IEHG XV.pdf]

- Current Initiatives
  - o Cloud Databasing
    - In Caris Viewer from Geospatial in the Cloud using B2B connection
  - o Variable Resolution Gridding
- HPD 4.0: S-100 already integrated
- S-58 Edition 6.1
  - o Pass/Fail for Critical Errors

**Action point:** The IEHG website contains a list of both National Organizations and Private Companies involved with IENCs. If not listed, please provide web address to [bernd.birkhuber@bmvit.gv.at](mailto:bernd.birkhuber@bmvit.gv.at) for inclusion on the website.

5. Working methods of IEHG [only if new countries participating]

#### **Deleting e-mail addresses from the members list at the website?**

The list of members and participants of IEHG is currently containing email addresses (active links) and it is published at <http://ienc.openecdis.org>. Interested persons can easily get in contact with representatives of their country or with representatives of companies. But the list could also be misused by extracting the mail addresses automatically and using them for spam. After a short discussion the meeting came to the conclusion that it is not necessary to change the list.

## 6. Involving end users in the development of S-401, especially regarding portrayal

The meeting discussed possibilities to involve end users in the development of S-401, especially regarding portrayal (e.g which symbols, priority of information, ...) .“Representatives of user groups” can become participants of IEHG and can participate in discussions on the forum. Individual boatmasters cannot become participants of IEHG according to the Terms of Reference. The meeting came to the conclusion that individual boatmasters should be informed and questioned by the national authorities and the companies. In special cases IEHG could decide to send questionnaires to end users via the national authorities and companies.

## 7. Election of the Core Group of IEHG

### Election of the chairs, co-chairs and technical coordinators

- Co-Chairs: Denise LaDue and Bernd Birkhuber were confirmed as Co-Chairs.
- Vice Chairs: Fei Weijun was confirmed as Vice Chair. DHN nominated Jose Celso as successor for Flavia Mandarino.
- Technical Coordinators: Cameron McLeay, Gael Billet, Yong Baek, Vladimir Sekachev and Nuno Silva were confirmed as Technical Coordinators.
- IEHG thanked the former Vice Chair Flavia Mandarino for her work for IEHG for many years.

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

- IEHG Representatives in the S-100 Domain & S-100 Executive Control Bodies: Denise LaDue, Gael Billet and Gert Morlion were confirmed as representatives.

### Amendment of the Terms of Reference

The domain control bodies of all domains in the S-100 Registry need to approve newly registered items to avoid inconsistencies. This means that the adoption of a Change Request which includes new elements for the S-100 Registry could take more time than the 6 weeks foreseen in the ToR. The meeting agreed on an adaptation of the ToR [see ToR\_for\_IEHG\_2019.pdf]. The document with the changes will be published via the discussion forum and will be formally adopted if there is no veto within 6 weeks.

**Action point:** Bernd Birkhuber to publish the amended ToR on the discussion forum.

### 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 and a short introduction to IENC standards. The meeting agreed on an adaptation of the introduction [see Introduction EG 2019.pdf]. The document with the changes will be published as a Change Request on the discussion forum and will be formally adopted if there is no veto within 6 weeks.

**Action point:** Bernd Birkhuber to publish the amended Introduction as a CR on the discussion forum.

## 7. Updates to the Encoding Guide and Product Specification

### Action points from last meeting:

Denise LaDue to change all instances of “UNKNOWN” to “unknown” in the Encoding Guide. Will be done in next edition of the EG.

Flavia Mandarino to create new CR for the encoding of an aqueduct. [CR adopted 12.12.2017]

Rene Visser to clarify whether groin or levee is meant, because dyke/levee is a DYKCON not a SLCONS.

Still open

**Action point:** Gert Morlion to remind Rene Visser to clarify whether groin or levee is meant, because dyke/levee is a DYKCON not a SLCONS.

Denise LaDue to ensure resolution of existing discrepancies with S-100 and verify no additional discrepancies have developed

Already known discrepancies have been solved, but new points have appeared and will have to be solved.

**Action point:** Denise LaDue to ensure resolution of discrepancies with S-100

Everybody: report discrepancies to Denise

Denise LaDue to update the Encoding Guide Letter J to reflect the applicable changes in the section Use of the Object Catalogue of S-57 and to submit a CR regarding the use of ‘sensor’.

Still open

**Action point:** Denise LaDue to update the Encoding Guide Letter J to reflect the applicable changes in the section Use of the Object Catalogue of S-57 and to submit a CR regarding the use of ‘sensor’.

Wieland Haupt to present the next version of the EG in docbook format at the next IEHG meeting. [IEHG\_2019\_InlandECDIS\_EG\_in\_DocBook-format.pdf]

- Revision of IENC EG 2.4 in DocBook. Export possible to
  - o .pdf
  - o .html
  - o .xml

**Action point:** Wieland Haupt to provide the links to the available docbook versions to Bernd Birkhuber, Bernd to add them to ienc.openecdis.org website.

Chris Hudson to contact Yong Baek whether docbook could be used for the DCEG builder.

IIC conducted an investigation and presented the results [IIC Technologies - DCEG\_docbook\_Presentation\_IEHG\_Oct\_2019.pdf]

- Digest docbook v5 guidelines and data structure
- Digest the S-100 DCEG Builder with the S-100 Domain Register
- Explore direct conversion to docbook
- Explore exchange mediums for DCEG to docbook conversion
- Implement test bed strategy to convert from DCEG to docbook
- Test conversion process of results
- **It’s feasible**, but will require quite a bit of coding to convert. If we’re okay with the DCEG structure, as it, no need to produce our unique EG

### Questions from the Forum

- Encoding of FAIRWY [GenDisc DRVAL1 and fairwy.pdf] – no action
- IENCs and ECDIS [GenDisc IENCs and ECDIS.pdf] – no action
- Working Area Object [GenDisc\_working area object.pdf] – possible action by EU
  - o Modification of ADMARE or wtware to include unlocd attribute to support Notices to Skippers for larger geographic areas with several waterways. No need from other regions, but no objections

**Action point:** RIS Comex to submit change request, if needed

- CBLSUB [GenDisc\_CBLSUB.pdf]
  - o Add STATUS = 4 (not in use)
  - o Need to determine whether the enumeration still exists in S-101  
**Action point:** René Visser to check and to submit change request if still needed
- CRANES [GenDisc\_cranes.pdf]
  - o Recommended validation checks create a warning when a part of a crane is over water, not on land
  - o It's only a warning, not an error; ignore
- HULKES [GenDisc\_HULKES.pdf]
  - o IENC 2.4 FC includes SCAMIN for HULKES, HULKES is SOTE, so does not require a SCAMIN  
**Action point:** Denise LaDue to remove SCAMIN in edition 2.5
- TECSOU [GenDisc\_TECSOU.pdf]
  - o There is an inconsistency between C.1.7 and the FC.  
**Action point:** Denise LaDue to submit CR to add TECSOU and SOUACC to SOUNDG in edition 2.5
- Data Order [GenDisc\_data\_order.pdf] – No action
- unlocd & MORFAC [GenDisc\_morfac.pdf]
  - o Proposal from NL to add unlocd to MORFAC
  - o Decision by the EU next week to decide whether to remove ISRS location from the RIS index encoding guide  
**Action point:** RIS Comex to submit change request, if needed
- refgag [GenDisc\_refgag.pdf]
  - o Encoding of more than one reference gauge is not allowed
  - o If bridges reference multiple reference gauges, how can an additional refgag be added
  - o S-401 multiplicity is possible, but not in IENC 2.4
  - o The NL would have to provide an instruction how to calculate the bridge clearance
- wtwdis [GenDisc\_wtwdis.pdf]
  - o Mandatory or Conditional?
    - PS states that it's mandatory
    - In NL, wtwdis is not defined in some inland waters  
**Action point:** René to submit a change request with an Encoding Instruction that explains in which cases wtwdis is not mandatory
- wtwgag [GenDisc\_wtwgag.pdf]
  - o vcrlev and sdrlev are defined as free text
  - o can use a value from verdat OR can enter free text  
**Action points:** Ask S-100 Domain Control if an attribute can change type, e.g. free text → enumerated value (vcrlev & sdrlev)
    - If yes: the NL to submit a change request to change vcrlev and sdrlev to list attributes, to assign all verdat enumerations to these attributes and to add the necessary new enumerations
    - If no: Bernd Birkhuber to submit a change request with a detailed Encoding Instruction for the Encoding of vcrlev and sdrlev
- Training guidelines for operators of Inland ECDIS [DraftStandardTraining.pdf]
  - o The meeting came to the conclusion that this is only a topic for Europe and outside of the scope of IEHG.

### Change Requests since the last IEHG meeting

- Change Request form has been updated and published  
[<http://ienc.openecdis.org/content/iehg>]
- Guideline for drafting change requests has been published  
[<http://ienc.openecdis.org/content/iehg>]

- CR Inventory is available on-line – currently on CR 402 since the beginning of CRs [<http://ienc.openecdis.org/content/iehg>]
- The overview of the change requests that have been submitted since the last meeting including in the form as adopted by the meeting is an annex to the minutes.

**Action points:** Wieland Haupt to check with VTT whether “real AtoN” can be replaced by “physical AtoN”, because this is the more accurate term nowadays used in the maritime area. (see CR 402)

Denise LaDue o change VALDCO to two decimal points

## 8. Update intervals and processes, decision on next version or edition

### Action points from last meeting:

All - Update change requests regarding the EG before 1 December 2017. Change requests with no opposition will be adopted on 12 January 2018. [Done]

Denise LaDue to update the Encoding Guide by 31 January 2018, which will enter into force 6 weeks later, if no opposition. [Done, 2.4.1 adopted on 2019 03 20]

Bernd Birkhuber to submit the proposal for the Guideline for CRs on the IEHG Discussion Forum. [see <https://iehg.centralus.cloudapp.azure.com/t/change-request-form-and-guidelines/328>]

All – provide feedback to the Draft Guidelines. [done]

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

The time schedule for the publication, the implementation and the use of the new edition/version has been discussed: An update of the Encoding Guide can (currently) be adopted by IEHG within 6 weeks. Adopted updates may be used in a region (depending on regional regulations), but a new edition of the Encoding Guide, Feature Catalogue and Product Specification is only published after a decision of the IEHG meeting (procedure adopted by IEHG in 2009). Edition 2.4 has been published by IEHG in spring 2015. The IEHG meeting discussed whether the next edition will be S-401 or an intermediate update 2.5.

Possible timelines for the two options:

Edition 2.5	S-401
Adoption IEHG: 2019	S-101 ed. 3.0.0 of IHO: 2022
Publication by IEHG: 2019/2020	S-401 ed. 3.0.0: 2022 / 2023
Adaptation of regional regulations (e.g. Europe): 2022	Publication by IEHG: 2023 / 2024
Practical use: 2023	Adaptation of regional regulations (e.g. Europe): 2026 / 2027
	Practical use: 2027 / 2028

The IEHG meeting decided to publish a new edition of the Product Specification (2.5) and the Encoding Guide (2.5.0).



The meeting agreed on the following deadlines:

- Deadline for submission of CRs: 14 December 2019
- Deadline for adoption of CRs: 25 January 2020
- Finalization of EG, FC, PS: 14 February 2020
- Publication of drafts on the forum: 14 February 2020
- Deadline for veto: 27 March 2020
- Publication of edition 2.5: 30 April 2020

**Action points:** everybody to submit change requests that should be included in edition 2.5 before 14 December 2019

Denise LaDue to implement the adopted change requests in the Encoding Guide and the Feature Catalogue

Bernd Birkhuber to implement the adopted change requests in the Product Specification (main document)

Domain managers to register the new elements from the adopted change requests

Wieland Haupt to implement the adopted change requests in the Recommended Validation Checks

## 9. Quality standards for Inland ENCs

### a) Updates of the recommended validation checks for Inland ENCs

**Action point from last meeting:** Wieland Haupt to update and provide Edition 2.4.1 of the Recommended Validation Checks (taking into account adopted CRs).

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 corr1” which are based on S-58 and edition 2.3 of the Product Specification for Inland ENCs and a preliminary version 2.4. This version is reviewed by 7Cs.

The meeting decided that it is not necessary to implement all other changes of edition 6.1.0 of S-58 in the RVC for Inland ENCs and to follow the same approach as for edition 2.4 also for edition 2.5

**Action point:** Wieland Haupt to provide the final version of the RVC 2.4 to Bernd Birkhuber for publication at [ienc.openecdis.org](http://ienc.openecdis.org).

### b) Minimum content of Inland ENCs

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 has been reflected in edition 2.4.0 of the Encoding Guide for Inland ENCs.

**Action point from last meeting:** Brazil & China to investigate whether a different definition of minimum content is necessary for their respective waterways.

**Action point:** Brazil & China to investigate whether a different definition of minimum content is necessary for their respective waterways.

**c) Accuracy information in Inland ENC, development for S-101?**

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. IHO is also discussing the same topic and has invited IEHG to participate the DQWG in February 2020. Friedhelm Moggert-Kägerler and Gael Billet volunteered to attend, if approved by company

**Action point:** Friedhelm Moggert-Kägerler and Gael Billet volunteered to attend the IHO DQWG meeting, if approved by their companies, and to report via the discussion forum respectively at the next IEHG meeting

**10. Status of development of S-99, S-100 and S-101**

**Action point from last meeting:** Denise LaDue to make the request at HSSC-9 for S-402 to be assigned to the IEHG for Bathymetric Inland ENCs. [Done]

**S-100**

- Entered into force on 1 Jan. 2010
- S-100 Edition 4.0.0 has been adopted in December 2018
- S-100 Registry Beta version
- S-99 edition 1.1.0 has been published in November 2012
- S-101 edition 1.0.0 has been published in December 2018 but is not complete

Components	Edition 1.0.0 (2018)	Edition 2.0.0 (2020)	Edition 3.0.0 (2022)
Main Documentation	✓	✓	✓
Feature Catalogue	✓	✓	✓
Portrayal Catalogue	Partial	✓	✓
Validation	Partial	✓	✓
Data Classification and Encoding Guide	✓	✓	✓
Encoding Format	✓	✓	✓
Encryption		✓	✓
Alerts and Indications		✓	✓
Full Test Data Sets for Type approval		Partial	✓
<b>Notes</b>	Portrayal will be limited to S-52 rules translated to LUA	Edition 2.0.0 refines all the additional rules	<b>Operational Edition</b>

The content of this overview is still valid, but IHO decided in the meantime to replace "Edition 2.0.0" with "Edition 1.1.0" and "Edition 3.0.0" with "Edition 2.0.0".

## 11. Alignment of the Inland ENC Product Specification with S-101 (S-401)

### Action points from last meeting:

COMEX should submit proposals on the Discussion Forum [done].

All members of the IEHG are invited to provide feedback.

All members – provide regional specific symbols in SVG or any other format, along with size requirements and portrayal rules, to Wieland for conversion to SVG and inclusion in the portrayal catalogue. (S-401-EUR-Symbols\_RUS\_AtoNs-mod.xls, SVG-symb-lib\_S-401\_V0.3.pdf)  
RIS Comex has implemented all existing symbols from South America and the Russian Federation.

**Action point:** all members that submit proposals with new symbols to provide the symbols to Wieland Haupt for conversion to SVG

Bernd Birkhuber to submit the amended CR form on the Discussion Forum [Done, see <https://iehg.centralus.cloudapp.azure.com/t/change-request-form-and-guidelines/328>]

[Presentation on S-401: IEHG Presentation - Status alignment with S-101.pdf]

### a) Product Specification

The European project RIS COMEX has submitted a proposal for the text of the S-401 Product Specification for Inland ENCs. Following the example of IHO it does not contain Annex B (portrayal) and annex C (Validation checks).

The meeting discussed the open questions:

- Dataset Identification
  - Subfield: classifications (e.g. unclassified, restricted, confidential, secret, etc.)
  - Not required by IEHG members, but not mandatory, so should keep it
- Support files:
  - TIFF only in S-101
  - Can JPEG be allowed?
  - S-100 would have to be modified to accommodate JPG
- Filenaming
  - INTU (intended usage) does not exist in S-401
  - Do we need to specify for which usage range an overlay cell will be displayed?
  - The meeting decided to remove this section temporarily and check during testing.

The meeting adopted the proposal as an edition 1.0.0 of S-401 which could be the basis for pilot implementations and testing.

The meeting discussed whether the existing overlay cells (which are currently used in the US and in Germany) have to become a separate Product Specification. This would require a separate Product Specification for base cells, too, because base cells without overlay cells do not fulfil the minimum requirements for Inland ENCs. The meeting decided to try to include the base cells and overlay cells and the rules for the correct portrayal in the S-401 Product Specification. Optional overlays would however require separate Product Specifications and an interoperability standard (based on S-98, will also be necessary because of S-402).

### Action points:

All regions to test edition 1.0.0 of S-401 and to submit feedback

Gert Morlion to ask S-100 WG to allow JPEG

RIS Comex to try to include overlay cells in the next edition of S-401 and to report to IEHG

## b) Feature Catalogue

- Discrepancies are still in existence in the registry
  - FCB 2.1.0 published, but not connected to the registry. Tested by Periskal [1910 - IEHG - FC Builder v2.1.pdf]

The meeting decided to wait for finalization of 2.5 and the next version of the FCB before starting with the production of a draft S-401 FC

### Action points: RIS Comex to

- check whether there are new elements in the S-101 FC
- compare with Corisma documents
- check whether the noticed discrepancies have an impact on the S-401 FC
- start working on the S-401 FC using the S-101 FC as a basis (as soon as edition 2.5 and a final FCB are available)

## c) Portrayal

Although it is not possible to finalize the portrayal section in 2019 a draft that is based on an older draft of S-101 is already available. In accordance with the decisions of IEHG in the past, it has been prepared on basis of the European standard for presentation of IENCs, because IEHG did not deal with portrayal so far.

- All inland specific symbols have been registered & approved
- Technical issues – questions forwarded to IHO
  - Responses received just before IEHG meeting
- How to Proceed
  - Continue the work in RIS COMEX or successor
- Portrayal
  - Development of LUA scripts / conversion lookup tables

Test of Portrayal Catalogue Builder [Presentatie PCB.pdf]

Regarding the display of numbers or text within symbols the meeting decided to test option 1 (to display the text separately on top of the symbol).

Regarding Conditional Symbology Instructions the meeting decided to try to translate as many as possible to LUA. This would ensure a correct display on maritime vessels.

It will be necessary to check whether the existing Lookup Tables are containing different entries for S-57 features and the copied small case features. If there are discrepancies it has to be checked whether it is necessary to keep the differences in portrayal. If it is necessary it could require the introduction of a new attribute to trigger the different portrayal.

**Action points:** RIS Comex to continue as proposed in the presentation when a stable PCB is available, contribution of all members via the discussion forum

## d) DCEG / EG

[IEHG\_presentation\_Gallagher DCEG EG and S-401\_Data Classification and Encoding Guide\_0.0.1.pdf]

Decision on the future structure of the EG: The EG for Inland ENCs is based on real world objects. For each real world object it is containing the S-100 features that have to be used to encode it.

The Data Classification and Encoding Guide (DCEG) of S-101 is based on S-100 features. The meeting discussed the advantages of the two models.

The S-401 FC will contain all attributes and enumerations of S-101 for those features that are used in IENCs. At the moment the EG is not listing all attributes and enumerations of the FC, but only those that are recommended for encoding for the specific object. The Object encoding

created by the DCEG would contain all attributes and enumerations. It would have to be mentioned in the encoding instructions which of them are mandatory, conditional or recommended to encode for which real world object.

If there is only one real world object that is encoded by a certain feature it would be possible to create a separate copy of the FC just for the creation of the DCEG and to delete there all attributes and enumerations that should not be listed. The disadvantage of this approach would be the loss of the direct connection to the official FC.

The DCEG builder is not creating a complete document, but only the parts that are coming from the FC and the PC. The Encoding Instructions have to be added manually. It is still unclear whether it would be necessary to add the Encoding Instructions manually after every update or the DCEG builder would create marked amendments in the complete document.

If the DCEG builder allows an effective updating the meeting would prefer the structure of the DCEG to guarantee that there are no discrepancies between the FC and the DCEG and to be in line with S-101. If it is not possible to update the DCEG with the DCEG builder, it would have to be updated manually. In this case only the first edition would be directly connected to the FC and the PC. IEHG would still have to decide which structure to use in this case.

**Action points:** RIS Comex (Gert Morlion) to investigate the possibilities for the implementation of updates with the DCEG builder and to inform IEHG

## 12. S-57 to S-100 converter development

IEHG has been informed about the development of a converter for S-57 datasets to S-101: [Esri S-57 to S-101 IHO Converter IEHG15 Update]

Available for free download, links to download are in the notes section of the presentation

## 13. The Aids to Navigation (AtoN) Information Product Specification (S-201)

[USCG-IEHG Oct 2019.pdf, 1143-Ed.1-Unique-Identifiers-for-Maritime-Resources\_June2019.pdf, S-201.zip]

Dave Lewald informed the meeting that IALA has adopted the Product Specifications for Aids to Navigation (AtoN) Information (S-201). It can be used to provide AtoN information to an HO for inclusion in an S-101 ENC. Inland specific signs and signals are not included. There was no decision whether IEHG should develop an inland comparable PS later.

### The Navigation Services Product Specification (S-125)

- IHO assigned to NIPWG
- Development was transferred to IALA ARM
- S-125 will provide:
  - o Digitized light list
  - o Digitized ATON information currently contained in NTM
    - Temporary ATON changes
    - Proposed ATON changes
    - Advance ATON changes
  - o Provide a small sized data set to be used as an overlay until the S-101 ENC is updated.

### The Bathymetric Contour Overlay for Inland ENC Product Spec. (S-402)

S-402 has been reserved by IHO for the Bathymetric Contour Overlay for Inland ENC Product Specification as decided at the last IEHG meeting. The existing Product Specification for

bathymetric Inland ENCs and S-401 should be the basis for the development of S-402. The European side proposed to start with the development of S-402 when the corresponding parts of S-401 have been adopted. The meeting agreed to the proposal.

#### 14. Navigational assistance systems and autonomous sailing, a challenge for Inland ECDIS

General discussion on the forum: [GenDisc\_SmartShipping.pdf]

Presentation of Wieland Haupt: [IEHG\_2019\_navigational\_assistance\_systems.pdf]

The Central Commission for Navigation on the Rhine (CCNR) has defined 6 levels of automation (see presentation).

Regarding bridge profiles it was unclear why the existing encoding for bridge arches cannot be used. Wieland Haupt will inform IEHG.

The display of the status of the signals at the upper and lower end of a section within the whole section could be misleading, because a change of the signal does not apply to vessels that have already passed the signal.

The meeting agreed that the S-401 PC should contain rules for the display of information from external sensors like radar or AIS. But the definition of interfaces would be outside of the scope of the Product Specification for Inland ENCs and could only be dealt with in the regulations for the applications (e.g. European inland ECDIS standard).

S-104 will provide standardized machine readable water level information for the maritime area. It is unclear whether S-104 could also be used for inland waterways. IEHG might have to develop an inland specific Product Specification for water level information based on the existing water level information exchange format

[[http://ienc.openecdis.org/files/Standardized\\_waterlevel\\_files\\_V03.pdf](http://ienc.openecdis.org/files/Standardized_waterlevel_files_V03.pdf)]

#### 15. Do we need encryption of Inland ENCs for Security?

Up to now Inland ENCs are published in unencrypted S-57 format e.g. in Europe and in the USA. Encryption has mainly been used to protect the copyright and to allow the selling of maritime ENCs. Inland ENCs are provided free of charge and encryption is therefore not foreseen in the standards of IEHG. With the progress in the digitalization of inland navigation there are growing concerns about cyber security. IEHG discussed whether encryption in accordance with S-63 would solve security issues.

##### **Use of S-63 – not ideal**

- Each data server would need a certificate from IHO
- Request of data servers that are neither an HO nor a RENC, would have to be supported by an HO or RENC
- Manufacturers would have to issue hardware Ids according to S-63 for each user
- Permits would have to be issued for IENCs for each hardware ID
- The application of S-63 would cause additional administrative costs on all levels
- As the main purpose of S-63 is the license scheme the meeting concluded not to use S-63

##### **Signed Catalogue for IENC 2.4 / 2.5**

- Recommendation by Holger Bothien: CRC checks in the exchange set
- Would ensure that data in the cells of an exchange set isn't reverse engineered
- It would however be possible to manipulate the whole exchange set

**Digital Signature for S-401**

- S-100 part 15 would provide the possibility of a digital signature as a more efficient way of authenticating IENCs [TSM7\_2019\_5.15\_S-100\_part\_15\_enhancements.pdf]
- Would be checked on new systems, but old systems would still be able to open IENCs
- Block chain could also be considered

The meeting concluded that there are no efficient tools available at the moment, and to consider digital signatures with S-401.

**16. Annual Report to HSSC about IEHG**

**Action point from last meeting:** Denise LaDue and Bernd Birkhuber to prepare the ppt presentation to HSSC immediately after the meeting.  
[Done: HSSC-9-07-6A - IEHG\_Report – Pres.pdf]

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.

**Action point:** Denise LaDue and Bernd Birkhuber to update the report to HSSC (special points: adoption of S-401 edition 1.0.0, request to track changes in S-100)

**17. Updates of the Information documents on Inland ENCs**

(Inland ENC.ppt at [ienc.openecdis.org](http://ienc.openecdis.org))

**Action point from last meeting:** 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).

The meeting introduced some amendments in the English version [Inland ENC.ppt] and decided to keep this action point.

**Action points:**

DHN or Gustavo Puente to amend the Spanish version.

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).

**18. Future operation of:**

**the [ienc.openecdis.org](http://ienc.openecdis.org) website**

An alternative and cheaper solution for the hosting of the IENC website was presented as partial test installation [<https://ienc.gitbook.io/ienc>]. The meeting accepted it as an alternative solution.

**Action point:** Bernd Birkhuber to clarify the details of the future operation of the website

**discussion forum for Inland ENCs**

**Action point:** Denise LaDue to investigate whether it would be possible to display the status of the CRs in the overview (pending, adopted, rejected)

**IENC Register (as part of S-100 Registry)**

no action needed

**19. Any other business**

India and Vietnam have been invited to participate in IEHG, but decisions are still pending.

**Distribution of work (partly already covered by action points above):**

- Keep track of S-101 developments and the consequences for IENCs (Cameron, Chris, Tom, René, Friedhelm)
- Preparation of 2.5 EG and FC (Denise, XML specification of data facility file Jonathan)
- Preparation of 2.5 Product Specification (Bernd)
- Preparation of 2.4.1 and 2.5 RVC (Wieland)
- Registration of new elements in the S-100 registry (Gael and Denise)
- Registration of new symbols in the S-100 registry (Gert)
- Update of list of members (Bernd)
- Meeting minutes (Denise and Bernd)
- Information exchange with IALA regarding S-201 (Dave)
- Report to HSSC (Denise and Bernd)

**20. Next meeting – Date and Location**

According to rotation principle the next meeting of IEHG could take place in Europe in autumn 2020. The meeting discussed the date, location and the agenda of the next meeting. The meeting discussed to shift the meeting date to end of February or start of March to be closer to the HSSC meeting, but decided against it.

Gert Morlion presented the invitation of De Vlaamse Waterwegen to host the next meeting in Hasselt, Belgium. As the meeting decided to publish an edition 2.5 in April 2020, there would most probably not be a big number of topics to discuss in autumn 2020. The meeting decided to have the next IEHG meeting in autumn 2021 in Hasselt, Belgium.

The participants thanked Denise and the USACE for the perfect organization and hosting of the meeting and the hospitality.



**Annex**  
**Overview of the adopted Change Requests since the XIV IEHG meeting**

## Change Request (CR)




0	<b>Title:</b> Acqueduct <b>CR number:</b> 379 <b>Version:</b> 0 <i>The next available CR number can be found in the currently valid Change Request List under the following website:  <a href="http://eg.ris.eu/common_issues/node/757">http://eg.ris.eu/common_issues/node/757</a></i>		
1	<b>Encoding Guide Edition 2.4.0 Request for:</b> <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.4 corr 2</b>		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input checked="" type="checkbox"/> for a new page in section G.1 (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input checked="" type="checkbox"/> Definition <input checked="" type="checkbox"/> Picture: <input checked="" type="checkbox"/> real world <input checked="" type="checkbox"/> paper chart <input checked="" type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input checked="" type="checkbox"/> Object coding of object class bridge <input type="checkbox"/> Illustration		
4	Proposed addition/change: Add S-57 enumeration 11 (acqueduct) for CATBRG on the Feature Catalogue Add Section G.1.13 for Acqueduct on the Encoding Guide		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: At the moment an acqueduct is only addressed on the Product Specifications if it is an exceptional navigational structure. It is necessary to encode regular acqueducts.		
7	Proposed amendments to the Feature Catalogue: add CATBRG_11 from S-57		
8	Proposed amendments to the Inland ENC domain in the S-100 registry: ....		
9	Proposed amendments to the Recommended Validation Checks for IENCs: add CATBRG 11 for bridge		
10	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
11	Name of sender: Flávia Mandarinó Name of authority or company: DHN e-mail address: flavia@marinha.mil.br Date (YYYYMMDD): 20171031	Deadline for comments 20171212 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.	

## G - Ports, Waterways

### G.1 Bridges, Tunnels, Overhead Obstructions

#### G.1.13 Non-navigable Aqueduct (O)

A bridge supporting an artificially elevated channel, for the conveyance of water. (adapted from The New Shorter Oxford English Dictionary, 1993)

Graphics	Encoding Instructions	Object Encoding
<p><i>Real World</i></p>  <p><i>Chart Symbol</i></p>  <p><i>IENC Symbolization</i></p> 	<p>A) Pylons shall be encoded as PYLONS (refer to G.1.10 – Pylons, Piers and Bridge, Cable, Pipeline Support).</p> <p>B) Create separate bridge objects for spans over navigable channel when attributes of navigable spans are different (e.g. vertical clearance, horizontal clearance).</p> <p>C) Place LIGHTS, if applicable, on navigable span and piers bounding the navigable span.</p> <p>D) VERCLR, HORCLR, VERCCL and/or VERCOP, 'wtwdis' and 'hunits' must be encoded for aqueducts over navigable water.</p> <p>E) VERCLR should not be encoded for aqueducts over non-navigable water.</p> <p>F) All objects of a bridge which belong to one bridge must be combined to one aggregation area (C_AGGR) (e.g. pylons, lights, notice marks).</p> <p>G) For bridges that consist of only one feature the object name of the bridge is assigned to the bridge object. For bridges with a C_AGGR object the object name has to be assigned to the respective C_AGGR object the object name has to be assigned to the respective C_AGGR object and not to the bridge object.</p> <p>H) Use 'verdat' only if vertical datum differs from DSPM VDAT subfield and from Meta object 'm_vdat' attribute.</p>	<p><b>Object Encoding</b> <b>Object Class</b> = bridge (A)</p> <p>(M) CATBRG = [11 (aqueduct)]</p> <p>(C) HORCLR = [xx.x] (metres), e.g., 34.2</p> <p>(C) VERCLR = [xx.xx] (metres), e.g., 13.27</p> <p>(C) VERCCL = [xx.x] (metres), e.g., 13.2</p> <p>(C) VERCOP = [xx.x] (metres), e.g., 23.4</p> <p>(C) verdat = [12 (Mean lower low water), 31 (Local low water reference level), 32 (Local high water reference level), 33 (Local mean water reference level), 34 (Equivalent height of water (German GIW)), 35 (Highest Shipping Height of Water (German HSW)), 36 (Reference low water level according to Danube Commission), 37 (Highest shipping height of water according to Danube Commission), 38 (Dutch river low water reference level (OLR)), 39 (Russian project water level), 40 (Russian normal backwater level), 41 (Ohio River Datum), 42 (Approximate LAT), 43 (Dutch High Water Reference Level (MHW)), 44 (Tweede Algemene Waterpassing)]</p> <p>(C) unlocd = [ISRS code]</p> <p>(C) wtwdis = [xxxx.xxx] (units defined in hunits), e.g., 2451.732</p> <p>(C) hunits = [3 (kilometres), 4 (hectometres), 5 (statute miles), 6 (nautical miles)]</p> <p>(C) refgag = (Refer to letter K)</p> <p>(C) PICREP = (Refer to Section B, General Guidance)</p> <p>(O) CONDTN = [1 (under construction), 2 (ruined), 3 (under reclamation), 5 (planned construction)]</p> <p>(M) SCAMIN = [90000]</p> <p>(C) SORDAT = [YYYYMMDD]</p> <p>(C) SORIND = (Refer to Section B, General Guidance)</p>

	<p>I) For Notice marks on bridges see O.3.2.</p> <p>J) If there is no vertical clearance indicator at a bridge, but there is a gauge which can be used to calculate the vertical clearance of the bridge depending on the water level, it should be encoded in accordance with I.3.4.</p> <p>K) EU: If there is a gauge which can be used to calculate the vertical clearance of the aqueduct, the ISRS Location Code of the gauge shall be encoded in the attribute reflag.</p>	<p><b><u>Object Encoding</u></b></p> <p>Object Class = C_AGGR()</p> <p>(M) OBJNAM = [name of the aqueduct]</p> <p>(O) NOBJNM = (Refer to Section B, General Guidance)</p> <p>(C) unlocd = [ISRS code]</p> <p>(C) SORDAT = [YYYYMMDD]</p> <p>(C) SORIND = (Refer to Section B, General Guidance)</p>
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**Change Request (CR)**

0	<b>Title:</b> Alignment with CEVNI rev.5 <b>CR number:</b> 383 <b>Version:</b> 0 <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i> <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOfW_6vCugbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOfW_6vCugbGukEvN_9XYohwB_QLE/edit?usp=sharing</a>		
1	<b>Encoding Guide Edition 2.4 Request for:</b> <i>(please enter the last published edition of the Encoding Guide)</i> <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements <input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.4 corr2</b> <i>(last published edition)</i> <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> <i>(last published edition)</i>		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input type="checkbox"/> referring to page(s) <i>(e.g.: C.1.5)</i> of the Encoding Guide <i>(Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section <i>(e.g.: E.1)</i> of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input checked="" type="checkbox"/> referring to section AA <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change: For catnmk ID 2 add "A.1.1" in column CEVNI. For catnmk ID 102 replace "vessels" with "small craft" in the second and in the last column.		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: The European Inland ECDIS expert group has identified some inconsistencies between CEVNI, the European Code for Inland Waterways, and the Product Specification for Inland ENCs regarding the meaning of notice marks. The EG, the FC and the registry have to be brought in line with the official text of the European traffic regulation.		
7	Proposed amendments to the Feature Catalogue: Add "Source: CEVNI" to the following catnmk enumerations: 1-77, 84-86 and 90-121. Enumeration 1: add "(general sign)" at the end of the existing definition. Enumeration 2: replace "A.1a" with "A.1.1" in the name and in the definition. Enumerations 42 and 43: add a semicolon and the following sentence at the end of the existing definitions: "the figure shown on the sign indicates the distance in metres, measured from the sign, to which vessels should keep". Enumeration 91: add "supply" at the end of the existing definition. Enumeration 101: add "craft" at the end of the existing name and at the end of the existing definition. Enumeration 102: replace "vessels" with "small craft" in the existing name and in the existing definition. Enumeration 119: replace "E.27" with "E.26.1" in the existing name and in the existing definition. Enumeration 120: replace "E.28" with "E.27" in the existing name and in the existing definition. Enumeration 121: replace "E.29" with "E.27.1" in the existing name and in the existing definition. Enumeration 122: replace "E.30" with "E.6.1" in the name and in the definition.		
8	Proposed amendments to the Inland ENC domain in the S-100 registry: Add "Source: CEVNI" to the following catnmk enumerations: 1-77, 84-86 and 90-121.		

	<p>Enumeration 1: add "(general sign)" at the end of the existing definition.          Enumeration 2: replace "A.1a" with "A.1.1" in the name and in the definition and align definition with the FC.          Enumerations 6-8 and 11: align definitions with the FC.          Enumeration 21: delete "prohibited" in the name and in the definition.          Enumerations 25-30: replace "channel" with "fairway" in the definitions.          Enumerations 42 and 43: add a semicolon and the following sentence at the end of the existing definitions: "the figure shown on the sign indicates the distance in metres, measured from the sign, to which vessels should keep".          Enumerations 44, 45: align definition with FC.          Enumeration 55: align name and definition with FC.          Enumerations 58-73 and 75-89: align definitions with FC.          Enumeration 91: add "supply" at the end of the existing definition.          Enumeration 101: add "craft" at the end of the existing name and at the end of the existing definition.          Enumeration 102: replace "vessels" with "small craft" in the existing name and in the existing definition.          Register the enumerations 117-121 as amended in the FC by this CR.</p>	
9	Proposed amendments to the Product Specification for Inland ENCs (main document): ---	
10	Proposed amendments to the Recommended Validation Checks for IENCs: ---	
11	Proposed symbol(s): Attach the file to the form, please. Name of file: ---	
12	Proposed applicability: <i>mark all applicable boxes</i> <input type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input type="checkbox"/> Russia <input type="checkbox"/> South America <input type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
13	Name of sender: Bernd Birkhuber Name of authority or company: Federal Ministry of Transport, Innovation and Technology e-mail address: bernd.birkhuber@bmvit.gv.at Date (YYYYMMDD): 20180808	Deadline for comments 20180920 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

## Change Request (CR)

0	<p><b>Title:</b> Add attributes for product parameters m_sdat  <b>CR number:</b> 384                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.4 Request for:</b> <i>(please enter the last published edition of the Encoding Guide)</i>  <input checked="" type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.4</b> <i>(last published edition)</i>  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> <i>(last published edition)</i></p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input checked="" type="checkbox"/> referring to page(s) C.1.4, G.1.1; G.1.2; G.1.3; G.1.4; G.1.5; G.1.6; G.1.8; G.1.9; G.1.11; G.1.12; G3.3; G.3.4; G.3.20; G4.5; G.4.8; G.4.9 <i>(e.g.: C.1.5)</i> of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section <i>(e.g.: E.1)</i> of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input checked="" type="checkbox"/> IENC  <input checked="" type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Request to add enumerations 23 (Lowest astronomical tide) and 24(Local datum) to the attribute verdat for the features  m_sdat,  bridge,  cblold,  pipohd,  convyr,  cranes,  vehtrf,  gatcon,  excnst</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file: not applicable</p>		
6	<p>Explanation, why this amendment/change is needed:  In Belgium the products in the estuarian area have a bathymetric reference level of LAT and the vertical levels are local heights</p>		
7	<p>Proposed amendments to the Feature Catalogue: Request to add enumerations 23 (Lowest astronomical tide) and 24(Local datum) to the attribute verdat for the features  m_sdat,  bridge,  cblold,  pipohd,  convyr,  cranes,</p>		

	vehtrf, gatcon, excnst	
8	Proposed amendments to the Inland ENC domain in the S-100 registry: verdat enumerations 42, 43 and 44 have still to be registered	
9	Proposed amendments to the Product Specification for Inland ENCs (main document):	
10	Proposed amendments to the Recommended Validation Checks for IENCs: add enumerations 23 and 24 to verdat for m_sdat	
11	Proposed symbol(s): Attach the file to the form, please. Name of file: not applicable	
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
13	Name of sender: Wesly Backers Name of authority or company: Flemish Hydrography e-mail address: wesly.backers@mow.vlaanderen.be Date (YYYYMMDD): 20181031	Deadline for comments 20181212 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

See also CR 343



## Change Request (CR)

0	<b>Title:</b> Correction enumeration verdat in the feature catalogue <b>CR number:</b> 385 <b>Version:</b> 1 <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i> <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a>		
1	<b>Encoding Guide Edition 2.4 Request for:</b> (please enter the last published edition of the Encoding Guide) <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.4</b> (last published edition) <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input checked="" type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change: Correction: remove verdat value 44 in all features in the feature catalogue. This value has been deleted in the past but not removed in the FC.		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file: not applicable		
6	Explanation, why this amendment/change is needed:		
7	Proposed amendments to the Feature Catalogue: Remove verdat value 44 in all features in the feature catalogue. This value has been deleted in the past but not removed in the FC. Also delete the value in the enumeration of the verdat attribute		
8	Proposed amendments to the Inland ENC domain in the S-100 registry:		
9	Proposed amendments to the Product Specification for Inland ENCs (main document):		
10	Proposed amendments to the Recommended Validation Checks for IENCs:		
11	Proposed symbol(s): Attach the file to the form, please. Name of file: not applicable		
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
13	Name of sender: Gert Morlion Name of authority or company: De Vlaamse Waterweg e-mail address: gert.morlion@vlaamsewaterweg.be Date (YYYYMMDD): 20181126	Deadline for comments 20180107 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.	



## Change Request (CR)

0	<p><b>Title:</b> Adding new category of notice mark  <b>CR number:</b> 386                      <b>Version:</b> 1  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.5 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.5</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    (Continue with 4 on this page)</p>	<p>Sections C to U</p> <p>This is a request  <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide (Continue with 3 on this page)  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide (Continue with 6 on this page and add the proposal on page 2 after removing form protection)</p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input checked="" type="checkbox"/> referring to section AA (Continue with 4 on this page)  <input type="checkbox"/> for a new Annex (Continue with 6 on this page and add the proposal on page 2 after removing form protection)</p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input checked="" type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Add new category of notice mark to enumeration</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  The new Rhine Police Regulations have amended a new notice mark B.12 which indicates that the use of the power supply is obliged.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p> <p>Add a new category of notice mark (page 375):</p> <p>Code: catnmk_123  Name: (B.12) Obligation to use onshore power supply point  Definition: Regulation mark B.12: Obligation to use onshore power supply point (all vessels are obligated to use the power supply for their electrical power needs)</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry: Add new category of notice mark</p> <p>Associated attribute: categoryOfNoticeMark  CodeID: ObligationToUseOnshorePowerSupplyPoint  Name: (B.12) Obligation to use onshore power supply point  Definition: Regulation mark B.12: Obligation to use onshore power supply point  Definition Source: CEVNI and Rhine Police Regulation</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document): ---</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs: add the new enumeration of category of notice mark</p>		
11	<p>Proposed symbol(s):</p>		

	Attach the file to the form, please. Name of file: B.12.png	
12	Proposed applicability: <i>mark all applicable boxes</i> <input type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input type="checkbox"/> Russia <input type="checkbox"/> South America <input type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
13	Name of sender: Gert Morlion, amendment by Bernd Birkhuber Name of authority or company: De Vlaamse Waterweg e-mail address: gert.morlion@vlaamsewaterweg.be Date (YYYYMMDD): 20180128	Deadline for comments 20190312 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

## Change Request (CR)

0	<b>Title:</b> category of bunker <b>CR number:</b> 387 <b>Version:</b> 0 <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i> <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a>		
1	<b>Encoding Guide Edition 2.5 Request for:</b> (please enter the last published edition of the Encoding Guide) <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements <input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.5</b> (last published edition) <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input checked="" type="checkbox"/> referring to page(s) G.3.2 (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section AA <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input checked="" type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change: Delete value 4 of category of bunker in the enumeration for G.3.2 - Bunker/Fuelling station		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: Category of bunker with the value 4 is referring to a power supply which is defined in G.3.26 as a separate feature		
7	Proposed amendments to the Feature Catalogue:		
8	Proposed amendments to the Inland ENC domain in the S-100 registry:		
9	Proposed amendments to the Product Specification for Inland ENCs (main document): ---		
10	Proposed amendments to the Recommended Validation Checks for IENCs: ---		
11	Proposed symbol(s): Attach the file to the form, please. Name of file:		
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
13	Name of sender: Gert Morlion Name of authority or company: De Vlaamse Waterweg e-mail address: gert.morlion@vlaamsewaterweg.be Date (YYYYMMDD): 20180128	Deadline for comments 20190311 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.	

Change Request (CR)

0	<p><b>Title:</b> Additional Values for Facility Types  <b>CR number:</b> 388                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.5 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input checked="" type="checkbox"/> referring to section AF <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Page 302 "element facility/type - facets"- Add the following facility types:</p> <ul style="list-style-type: none"> <li>• Navigation Surveillance</li> <li>• Waterway Authority</li> <li>• RIS Provider</li> <li>• Environmental Agency</li> <li>• Customs</li> <li>• Safety Inspection</li> <li>• Harbour</li> <li>• Vessel Traffic Center</li> <li>• Hydrometeo Center</li> <li>• Ship Lift</li> </ul>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  Within European project RIS COMEX there is the request to provide contact and opening hours information for several organisations related to IWT. This can be best done with the existing facility file XSD. The above mentioned organisations are relevant to RIS users, but not yet part of the available facility types.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document):</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs:</p>		
11	<p>Proposed symbol(s):  Attach the file to the form, please. Name of file:</p>		
12	<p>Proposed applicability: <i>mark all applicable boxes</i></p> <p><input checked="" type="checkbox"/> US  <input checked="" type="checkbox"/> Europe (without Russia)</p>		

	<input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
13	Name of sender: Jonathan Gallagher Name of authority or company: viadonau - Österreichische Wasserstraßen Gesellschaft mbH e-mail address: jonathan.gallagher@viadonau.org Date (YYYYMMDD): 20190502	Deadline for comments 20190613 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

## Change Request (CR)

0	<p><b>Title:</b> Clarification of time specification in Facility Files  <b>CR number:</b> 389                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.5 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input checked="" type="checkbox"/> referring to section AF <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Page 316 "element TTimeFrame/end" - Add item:  remark The endtime 00:00:00 refers to the end of the day. A timeframe with starttime 00:00:00 and endtime 00:00:00 translates to a 24 hour period or the whole day and is similar to the notation 00:00:00 to 24:00:00.</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  In the European project RIS COMEX several partners pointed out that the notation 00:00:00 to 00:00:00 indicating a 24 hour period is ambiguous. It should be clarified in the Encoding Guide that this notation translates to 00:00 - 24:00 hours.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document):</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs:</p>		
11	<p>Proposed symbol(s):  Attach the file to the form, please. Name of file:</p>		
12	<p>Proposed applicability: <i>mark all applicable boxes</i>  <input checked="" type="checkbox"/> US  <input checked="" type="checkbox"/> Europe (without Russia)  <input checked="" type="checkbox"/> Russia  <input checked="" type="checkbox"/> South America  <input checked="" type="checkbox"/> Asia    <i>(description of another area of applicability, e.g. a country)</i></p>		
13	<p>Name of sender: Jonathan Gallagher  Name of authority or company: viadonau - Österreichische Wasserstraßen Gesellschaft mbH  e-mail address: jonathan.gallagher@viadonau.org</p>	<p>Deadline for comments 20190613 (6 weeks)    To be filled in by a member of the Core Group:  <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected</p>	



Date (YYYYMMDD): 20190502	Will become part of edition 2.5 of the EG.
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Change Request (CR)

0	<b>Title:</b> Align file naming convention for overlay cells in PS with IENC EG <b>CR number:</b> 390 <b>Version:</b> 0 <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i> <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a>		
1	<b>Encoding Guide Edition</b> <b>Request for:</b> <i>(please enter the last published edition of the Encoding Guide)</i> <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> <i>(last published edition)</i> <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> <i>(last published edition)</i>		
2	<b>Sections A and B</b>  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	<b>Sections C to U</b>  This is a request <input type="checkbox"/> referring to page(s) <i>(e.g.: C.1.5)</i> of the Encoding Guide <i>(Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section <i>(e.g.: E.1)</i> of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	<b>Section V to Z and Annexes AA to AF</b> This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	<b>Proposed addition/change:</b> The third character in the file name of data set files indicates the navigational purpose. In the PS under 5.6.3 it is specified that the letter "L" refers to overlay cells. The letter "L" should be replaced by the letter "A" to be in line with the EG.		
5	<b>Proposed picture/illustration:</b> Attach the file to the form, please. Name of file:		
6	<b>Explanation, why this amendment/change is needed:</b> With regards to the naming convention for overlay cells, the PS under 5.6.3 is not consistent with the EG and the existing practice as well as with the current configuration in IENC production software. Also the PS under 2.1 states to use the letter "A" for overlay cells. Therefore "A" should also be used in the PS 5.6.3.		
7	<b>Proposed amendments to the Feature Catalogue:</b>		
8	<b>Proposed amendments to the Inland ENC domain in the S-100 registry:</b>		
9	<b>Proposed amendments to the Product Specification for Inland ENCs (main document):</b> 5.6.3		
10	<b>Proposed amendments to the Recommended Validation Checks for IENCs:</b>		
11	<b>Proposed symbol(s):</b> Attach the file to the form, please. Name of file:		
12	<b>Proposed applicability: <i>mark all applicable boxes</i></b> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
13	Name of sender: Jonathan Gallagher Name of authority or company: viadoau - Österreichische Wasserstraßen Gesellschaft mbH e-mail address: jonathan.gallagher@viadonau.org	Deadline for comments 20190704 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected	

Date (YYYYMMDD): 20190523	Will become part of edition 2.5 of the EG.
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## Change Request (CR)

0	<p><b>Title:</b> Correction mandatory attributes in the Product Specification for bathymetric Inland ENCs  <b>CR number:</b> 391                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition</b>                      <b>Request for:</b> <i>(please enter the last published edition of the Encoding Guide)</i>  <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> <i>(last published edition)</i>  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> <i>(last published edition)</i></p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input type="checkbox"/> referring to page(s) <i>(e.g.: C.1.5)</i> of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section <i>(e.g.: E.1)</i> of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  In the Product Specification for bathymetric Inland ENCs under 3.5.2 it is specified that for feature M_QUAL the attributes CATZOC or POSACC and SOUACC has to be encoded mandatory. To be in line with the Product Specification for Inland ENCs for the feature M_QUAL either CATZOC or TECSOU should be used.</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  The PSproduct Specification for bathymetric Inland ENCs under 3.5.2 is not consistent with the Product Specification for Inland ENCs Edition 2.4.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document):</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs:</p>		
11	<p>Proposed symbol(s):  Attach the file to the form, please. Name of file:</p>		
12	<p>Proposed applicability: <i>mark all applicable boxes</i>  <input checked="" type="checkbox"/> US  <input checked="" type="checkbox"/> Europe (without Russia)  <input checked="" type="checkbox"/> Russia  <input checked="" type="checkbox"/> South America  <input checked="" type="checkbox"/> Asia  <i>(description of another area of applicability, e.g. a country)</i></p>		
13	<p>Name of sender: Johannes Nemeth  Name of authority or company: viadonau - Österreichische Wasserstraßen Gesellschaft mbH  e-mail address: johannes.nemeth@viadonau.org  Date (YYYYMMDD): 20190805</p>	<p>Deadline for comments 20190916 (6 weeks)  To be filled in by a member of the Core Group:  <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected  Will become part of edition 2.5 of the EG.</p>	



Change Request (CR)

0	<p><b>Title:</b> Use of DEPCNT in Europe  <b>CR number:</b> 392                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqBGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqBGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.4.1 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input checked="" type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input checked="" type="checkbox"/> referring to page(s) I.2.1 (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input checked="" type="checkbox"/> Coding instruction lit. B  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  B) EU: depth contours shall be encoded between different depth areas to allow the Inland ECDIS to highlight the safety depth selected by the skipper.</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  Page I.2.1 of the Encoding Guide for Depth Contours is currently only containing an Encoding Instruction for the US. A general discussion has shown that the feature depth contour shall also be encoded in Europe. It is used by applications to highlight the safety contour selected by the skipper.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document):</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs:</p>		
11	<p>Proposed symbol(s):  Attach the file to the form, please. Name of file:</p>		
12	<p>Proposed applicability: <i>mark all applicable boxes</i>  <input type="checkbox"/> US  <input checked="" type="checkbox"/> Europe (without Russia)  <input type="checkbox"/> Russia  <input type="checkbox"/> South America  <input type="checkbox"/> Asia  <i>(description of another area of applicability, e.g. a country)</i></p>		
13	<p>Name of sender: Bernd Birkhuber  Name of authority or company: BMVIT  e-mail address: bernd.birkhuber@bmvit.gv.at  Date (YYYYMMDD): 20190812</p>	<p>Deadline for comments 20190924 (6 weeks)    To be filled in by a member of the Core Group:  <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected  Will become part of edition 2.5 of the EG.</p>	



## Change Request (CR)

0	<b>Title:</b> Correction of NEWOBJ in the Feature Catalogue <b>CR number:</b> 393 <b>Version:</b> 0 <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i> <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a>		
1	<b>Encoding Guide Edition 2.4.1 Request for:</b> (please enter the last published edition of the Encoding Guide) <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.4corr2</b> (last published edition) <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change:		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: NEWOBJ is a S-57 feature with the code 163. In the IENC Feature Catalogue it is shown with the code 18005 which is the code of the feature lg_drt. This is a mistake. The S-57 code has to be shown for a S-57 feature.		
7	Proposed amendments to the Feature Catalogue: Replace the code "18005" with the code "163" for the feature "NEWOBJ" in the Feature Catalogue.		
8	Proposed amendments to the Inland ENC domain in the S-100 registry:		
9	Proposed amendments to the Product Specification for Inland ENCs (main document):		
10	Proposed amendments to the Recommended Validation Checks for IENCs:		
11	Proposed symbol(s): Attach the file to the form, please. Name of file:		
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
13	Name of sender: Bernd Birkhuber Name of authority or company: BMVIT e-mail address: bernd.birkhuber@bmvit.gv.at Date (YYYYMMDD): 20190812	Deadline for comments 20190924 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.	





## Change Request (CR)

0	<p><b>Title:</b> Accuracy information  <b>CR number:</b> 394                      <b>Version:</b> 1  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCugbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCugbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.5 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input checked="" type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.5</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input checked="" type="checkbox"/> for a new page in section C.1 (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input type="checkbox"/> referring to section AA <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input checked="" type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input checked="" type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Add the S-57 feature M_ACCY with the appropriate attributes to indicate the overall uncertainty of position information in an area</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  For autonomous navigation, the systems need to know the accuracy of the features in the IENC.</p>		
7	<p>Proposed amendments to the Feature Catalogue:  - add to the Feature Catalogue 2.5 the S-57 feature M_ACCY, the S-57 attributes HORACC, VERACC and the new attribute CATTEV;  - add to the S-401 Feature Catalogue the S-101 feature AccuracyOfData, together with the attributes categoryOfTemporalVariation, horizontalDistanceUncertainty, verticalDistanceUncertainty, uncertaintyVariableFactor, orientationUncertainty, uncertaintyFixed;</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document): ---</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs: add to the Feature Catalogue 2.5 the S-57 feature M_ACCY, the S-57 attributes HORACC, VERACC and the new attribute CATTEV;  - add to the S-401 Feature Catalogue the S-101 feature AccuracyOfData, together with the attributes categoryOfTemporalVariation, horizontalDistanceUncertainty, verticalDistanceUncertainty, uncertaintyVariableFactor, orientationUncertainty, uncertaintyFixed;</p>		
11	<p>Proposed symbol(s):  Attach the file to the form, please. Name of file:</p>		
12	<p>Proposed applicability: <i>mark all applicable boxes</i>  <input checked="" type="checkbox"/> US  <input checked="" type="checkbox"/> Europe (without Russia)  <input checked="" type="checkbox"/> Russia  <input checked="" type="checkbox"/> South America  <input checked="" type="checkbox"/> Asia  <i>(description of another area of applicability, e.g. a country)</i></p>		
13	<p>Name of sender: Gert Morlion</p>		<p>Deadline for comments 20190930 (6 weeks)</p>

<p>Name of authority or company: De Vlaamse Waterweg e-mail address: gert.morlion@vlaamsewaterweg.be Date (YYYYMMDD): 20190819</p>	<p>To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.</p>
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## C - IENC Meta Information

### C.1 Meta Features

#### C.1.9 Quality of Non-Bathymetric Data (O)

An area within which the best estimate of the overall accuracy of the data is uniform. The overall accuracy takes into account for example the source accuracy, chart scale, digitising accuracy, etc.

Graphics	Encoding Instructions	Object Encoding
	<p>A. The accuracy of data is only encoded in those areas where accuracy of data is available and clearly defined.</p> <p>B. If a structured external XML-file with more detailed accuracy information is available, the reference to the file has to be entered in the TXTDSC attribute.</p>	<p><u>Object Encoding</u>            Object Class = M_ACCY(A)            (M) CATTEV = [4 (likely to change), 5 (unlikely to change), 6 (unassessed)]            (O) HORACC = [x.xx] (metres), The best estimate of the horizontal accuracy of horizontal clearances and distances.            Minimum value: 0; Resolution: 0.1 m            (O) VERACC = [x.xx] (metres), The best estimate of the accuracy of a position. The expected input is the maximum of the two-dimensional error. The error is assumed to be positive and negative. The plus/minus character shall not be encoded.            Minimum value: 0; Resolution: 0.1 m            (O) POSACC = [xxxx.x] (metres), The best estimate of the accuracy of a position. Minimum value: 0; Resolution: 0.1 m            (O) SOUACC = [x.xx] The best estimate of the accuracy of the sounding data.            Minimum value: 0; Resolution: 0.1 m              (O) NINFOM = (Refer to Section B, General Guidance)              (O) TXTDSC = (Refer to letter B)              (C) SORDAT = [YYYYMMDD]            (C) SORIND = (Refer to Section B, General Guidance)</p>

Feature Catalogue:

Feature	Accuracy of data
---------	------------------

Acronym: M\_ACCY Code: 300  
 Type: M  
 Primitive: A

Data Dictionary (DD) Reference:

DD Name: HYDRO Date accepted: 2000-11-01  
 Definition: An area within which the best estimate of the overall accuracy of the data is uniform. The overall accuracy takes into account for example the source accuracy, chart scale, digitising accuracy etc.

Attribute Bindings:

acronym	usage	constraints
POSACC	O	unit = "m" decimal digits = "2"
SOUACC	O	unit = "m" decimal digits = "2"
HORACC	O	format = "xx.x", unit defined in HUNI subfield of the DSPM record or in the HUNITS attribute of the M_UNIT meta object class, e.g. metre (m)
VERACC	O	format = "xx.x", unit defined in HUNI subfield of the DSPM record or in the HUNITS attribute of the M_UNIT meta object class, e.g. metre (m)
CATTEV	M	4, 5, 6
INFORM	O	
NINFOM	O	
TXTDSC	O	
SORDAT	C	format = "ccyymmdd"
SORIND	C	format = "cc,cc,cccc,c..."
NTXTDS	O	

Attribute	Horizontal Accuracy
-----------	---------------------

Acronym: HORACC Code: 97  
 Use Type: F,S

Value Type: F

Data Dictionary (DD) Reference:

DD Name: HYDRO Date accepted: 2000-11-01

Definition: The best estimate of the horizontal accuracy of horizontal clearance and distances.

Attribute	Vertical Accuracy
-----------	-------------------

Acronym: VERACC Code: 180

Use Type: F,S

Value Type: F

Data Dictionary (DD) Reference:

DD Name: HYDRO Date accepted: 2000-11-01

Definition: The best estimate of the vertical accuracy of heights, vertical distances and vertical clearances, excluding sounding measurements.

Attribute	Category of temporal variation
-----------	--------------------------------

Acronym: CATTEV Code: 18036

Use Type: F,S

Value Type: F

Data Dictionary (DD) Reference:

DD Name: HYDRO Date accepted: 2000-11-01

Definition: An assessment of the likelihood of change over time.

Enumerations:

Value Data Dictionary (DD) Reference

4 DD Name: HYDRO Code: CATTEV\_4 Date accepted: 2000-11-01

Value Data Dictionary (DD) Reference

Name: Likely to change

Definition: Continuous or frequent change to non-bathymetric features (for example river siltation, glacier creep/recession, sand dunes, buoys, marine farms, etc).

5 DD Name: HYDRO Code: CATTEV\_5 Date accepted: 2000-11-01

Name: Unlikely to change

Definition: Significant change to the seafloor is not expected.

6 DD Name: HYDRO Code: CATTEV\_6 Date accepted: 2000-11-01

Name: Unassessed

Definition: Temporal variation not assessed or cannot be determined.

## Change Request (CR)

0	<p><b>Title:</b> Accuracy information (2)  <b>CR number:</b> 395                      <b>Version:</b> 1  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.5 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input checked="" type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.5</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input checked="" type="checkbox"/> referring to page(s) D.2.5, G.1.1, G.1.2, G.1.3, G.1.4, G.1.5, G.1.6, G.1.7, G.1.8, G.1.9, G.1.10, G.1.11, G.1.12, G.2.1, G.2.3, G.3, G.3.3, G.3.4, G.3.5, G.3.6, .3.7, G.3.8, G.3.11, G.3.12, G.3.13, G.3.14, G.3.18, G.3.21, G.3.23, G.3.24, G.3.25, G.4.2, G.4.3, G.4.4; G.4.5, G.4.7, G.4.8, G.4.9, I.1.1, I.1.2, I.1.3, I.1.5, I.1.6, I.1.7, I.1.9, I.2.1, I.3.5, J.1.1, J.1.2, J.1.3, M.3.1, (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page after removing form protection)</i>  2</p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input type="checkbox"/> referring to section AA <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input checked="" type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Add accuracy information as optional attributes to features which are important for the safety of navigation</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  For autonomous navigation, the systems need to know the accuracy of the features in the IENC.</p>		
7	<p>Proposed amendments to the Feature Catalogue:  - add to the Feature Catalogue 2.5 the attributes HORACC, VERACC, CATTEV to all proposed features as optional attributes;  - add to the S-401 Feature Catalogue the S-101 feature AccuracyOfData, together with the attributes categoryOfTepmoralVaration, horizontalDistanceUncertainty, verticalDistanceUncertainty, uncertaintyVariableFactor, orientationUncertainty, uncertaintyFixed to all proposed features;</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document): ---</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs: - add to the Feature Catalogue 2.5 the attributes HORACC, VERACC, CATTEV to all proposed features as optional attributes;</p>		



	- add to the S-401 Feature Catalogue the S-101 feature AccuracyOfData, together with the attributes categoryOfTemporalVariation, horizontalDistanceUncertainty, verticalDistanceUncertainty, uncertaintyVariableFactor, orientationUncertainty, uncertaintyFixed to all proposed features;	
11	Proposed symbol(s): Attach the file to the form, please. Name of file:	
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
13	Name of sender: Gert Morlion Name of authority or company: De Vlaamse Waterweg e-mail address: gert.morlion@vlaamsewaterweg.be Date (YYYYMMDD): 20190819	Deadline for comments 20190930 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

## Change Request (CR)

0	<b>Title:</b> Numeric precision <b>CR number:</b> 396 <b>Version:</b> 0 <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i> <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a>		
1	<b>Encoding Guide Edition 2.4.1 Request for:</b> <i>(please enter the last published edition of the Encoding Guide)</i> <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements <input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.5</b> <i>(last published edition)</i> <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> <i>(last published edition)</i>		
2	Sections A and B  This is a request <input checked="" type="checkbox"/> referring to lit. D of section B <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input type="checkbox"/> referring to page(s) <i>(e.g.: C.1.5)</i> of the Encoding Guide <i>(Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section <i>(e.g.: E.1)</i> of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change: Amend the existing text in Section B, lit. D, Numeric Precision, to read: "The maximum number of decimals of numeric attributes is defined in the Feature Catalogue (e.g. XX.dd for maximum two decimals). The encoding of numeric attributes (e.g. of depth information and heights of structures) should reflect the accuracy of the number. For example a bridge height of thirty-five meters, accurate to one meter, has to be encoded as 35, not as 35.0 or 35.00. Measured values without safety margins should be used."		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: The Feature Catalogue and the Encoding Guide are containing different numbers of decimals for the same attributes in some cases. The general guidance section should provide the explanation that there can be a distinction between the technical possibility (defined in the Feature Catalogue) and the recommended precision or a typical example.		
7	Proposed amendments to the Feature Catalogue: ---		
8	Proposed amendments to the Inland ENC domain in the S-100 registry: ---		
9	Proposed amendments to the Product Specification for Inland ENCs (main document): ---		
10	Proposed amendments to the Recommended Validation Checks for IENCs: ---		
11	Proposed symbol(s): Attach the file to the form, please. Name of file: ---		
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
13	Name of sender: Bernd Birkhuber	Deadline for comments 20190925 (6 weeks)	

Name of authority or company: BMVIT e-mail address: bernd.birkhuber@bmvit.gv.at Date (YYYYMMDD): 20190814	To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.
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Change Request (CR)

0	<p><b>Title:</b> Correction FC : add vcrval &amp; sdrval for features with a verdat  <b>CR number:</b> 397                      <b>Version:</b> 1  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.4 Request for:</b> <i>(please enter the last published edition of the Encoding Guide)</i>  <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.4 corr2</b> <i>(last published edition)</i>  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> <i>(last published edition)</i></p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input checked="" type="checkbox"/> referring to page(s) I.3.4  G.1.1  G.1.2  G.1.3  G.1.4  G.1.5  G.1.6  G.1.7  G.1.8  G.1.9  G.1.11  G.1.12  G.3.3  G.3.4  G.3.20  G.4.5  G.4.8  G.4.9  I.3.5  G.3.7    <i>(e.g.: C.1.5) of the Encoding Guide (Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section <i>(e.g.: E.1) of the Encoding Guide (Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input type="checkbox"/> referring to section AA <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input checked="" type="checkbox"/> Coding instruction lit. Add encoding instruction  “Use verlev and vcrval if the local value and name of vertical river datum reference level (design waterlevel ) is known .”  for  I.3.4 Waterway Gauge  G.1.1 Bascule Bridge  G.1.2 Bridges with Bridge Arches  G.1.3 Fixed Bridge  G.1.4 Lift Bridge  G.1.5 Suspension Bridge  G.1.6 Swing Bridge  G.1.7 Tunnel</p>		

G.1.8 Overhead Cable  
 G.1.9 Overhead Pipe  
 G.1.11 Foot Bridge / Catwalk  
 G.1.12 Draw Bridge (CR NL )  
 G.3.3 Conveyor  
 G.3.4 Crane  
 G.3.7 Floating Dock  
 G.3.20 Vehicle Transfer Location  
 G.4.5 Lock Gate  
 G.4.9 Opening Barrage

Add encoding instruction

“Use sdrlev and sdrval if the local value and name of vertical river datum reference level (design waterlevel ) is known .”

for

I.3.4 Waterway Gauge

I.3.5 Waterway Profile

G.3.7 Floating Dock

G.4.8 Exceptional Navigational Structure

remark for wtwgag the EG described for waterlevel values a format like this O) higwat = [xxx.xxx] (metres), e.g., 4.78 . I think that encoding waterlevels values in mm is not quite common ; But may be those three decimals are needed for other units ; If that is the case than [xx.xx] in the proposal should be adapt to [ xx.xxx]

Object coding of object class add

(O) vcrlev = Name of reference level to which vertical clearances are referred (from verdat list) plus version indication, e.g., HSW 2002 &

(O) vcrval= [xx.xx] (metres), e.g., 1.15 for

I.3.4 Waterway Gauge (vcrlev is already described )

G.1.1 Bascule Bridge

G.1.2 Bridges with Bridge Arches

G.1.3 Fixed Bridge

G.1.4 Lift Bridge

G.1.5 Suspension Bridge

G.1.6 Swing Bridge

G.1.7 Tunnel

G.1.8 Overhead Cable

G.1.9 Overhead Pipe

G.1.11 Foot Bridge / Catwalk

G.1.12 Draw Bridge (CR NL )

G.3.3 Conveyor

G.3.4 Crane

G.3.7 Floating Dock

G.3.20 Vehicle Transfer Location

G.4.5 Lock Gate

G.4.9 Opening Barrage

add (O) sdrlev = (name of reference level to which depth are referred (from verdat list) plus version indication), e.g. GIW 2002 & add

(O) sdrval= [xx.xx] (metres), e.g., 2.05 for

I.3.4 Waterway Gauge (sdrlev is already described)

I.3.5 Waterway Profile

G.3.7 Floating Dock

G.4.8 Exceptional Navigational Structure

remark for wtwgag the EG described for waterlevel values a format like this O) higwat = [xxx.xxx] (metres), e.g., 4.78 . I think that encoding waterlevels values in mm is not quite common ; But may be those three decimals are needed for other units ; If that is the case than [xx.xx] in the proposal should be adapt to [ xx.xxx]

Illustration

4	Proposed addition/change: Correction FC : add vcrval & sdrval attributes <a href="https://ienc-kennisportaal.nl/wp-content/uploads/2019/08/IENC_EG_2.4missing_attributes_sdrval_vcrval.png">https://ienc-kennisportaal.nl/wp-content/uploads/2019/08/IENC_EG_2.4missing_attributes_sdrval_vcrval.png</a>
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:
6	Explanation, why this amendment/change is needed: .During the IEEG in June 2018 it has been discovered ( ie Laessi demo) that the vcrval attribute (value of Vertical clearance reference level) and the sdrval attribute for sounding date reference value is missing in the Feature Catalog vcrval and sdrval attributes are important to be able to make a comparison with actual water gauge information examples : <a href="https://ienc-kennisportaal.nl/wp-content/uploads/2018/11/20181108-ClearanceandDraught-informationInFreeFlowingRiversAndEstuaries.pdf">https://ienc-kennisportaal.nl/wp-content/uploads/2018/11/20181108-ClearanceandDraught-informationInFreeFlowingRiversAndEstuaries.pdf</a>  Because of this addition, many pages of the EG 'needs' an update I 'll make separate CR for the EG
7	Proposed amendments to the Feature Catalogue: add vcrval & sdrval attributes to the FC  vcrval for the features : I.3.4 Waterway Gauge G.1.1 Bascule Bridge G.1.2 Bridges with Bridge Arches G.1.3 Fixed Bridge G.1.4 Lift Bridge G.1.5 Suspension Bridge G.1.6 Swing Bridge G.1.7 Tunnel G.1.8 Overhead Cable G.1.9 Overhead Pipe G.1.11 Foot Bridge / Catwalk G.1.12 Draw Bridge (CR NL ) G.3.3 Conveyor G.3.4 Crane G.3.7 Floating Dock G.3.20 Vehicle Transfer Location G.4.5 Lock Gate G.4.9 Opening Barrage  sdrval for the features : I.3.4 Waterway Gauge I.3.5 Waterway Profile G.3.7 Floating Dock G.4.8 Exceptional Navigational Structure
8	Proposed amendments to the Inland ENC domain in the S-100 registry:
9	Proposed amendments to the Product Specification for Inland ENCs (main document): ---
10	Proposed amendments to the Recommended Validation Checks for IENCs: ---
11	Proposed symbol(s): Attach the file to the form, please. Name of file: ---
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>
13	Name of sender: René Visser
	Deadline for comments <b>20191113</b> (6 weeks)

	Name of authority or company: Min I&W RWS e-mail address: rene.visser@rws.nl Date (YYYYMMDD): 20191002	To be filled in by a member of the Core Group: <input type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.
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*Approved by the meeting, but still open for comments*

0	<b>Title:</b> BOYSPP add all (IHO) values to the FC <b>Version:</b> 2		
1	<b>Encoding Guide Edition 2.5 Request for:</b> <input type="checkbox"/> <b>an addition</b> (e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements) <input type="checkbox"/> <b>a change</b> (e.g. replacing a picture, illustration or an already existing text) <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue (edition 2.5)</b>		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input checked="" type="checkbox"/> referring to page(s) (O.4.1) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input checked="" type="checkbox"/> Object coding of object class (M) CATSPM = 1 (firing danger area mark), 2 (target mark), 3 (marker ship mark), 4 (degaussing range mark), 5 (barge mark), 6 (cable mark), 7 (spoil ground mark), 8 (outfall mark), 10 (recording mark), 11 (seaplane anchorage mark), 12 (recreation zone mark), 13 (private mark), 14 (mooring mark), 16 (leading mark), 17 (measured distance mark), 18 (notice mark), 19 (TSS mark (Traffic Separation Scheme), 20 (anchoring prohibited mark), 21 (berthing prohibited mark), 22 (overtaking prohibited mark), 23 (two-way traffic prohibited mark), 24 ('reduced wake' mark), 25 (speed limit mark), 26 (stop mark), 27 (general warning mark), 28 ('sound ship's siren' mark), 29 (restricted vertical clearance mark), 30 (maximum vessel's draught mark), 31 (restricted horizontal clearance mark), 32 (strong current warning mark), 33 (berthing permitted mark), 34 (overhead power cable mark), 35 ('channel edge gradient' mark), 36 (telephone mark), 37 (ferry crossing mark), 39 (pipeline mark), 40 (anchorage mark), 41 (clearing mark), 42 (control mark), 43 (diving mark), 44 (refuge beacon), 45 (foul ground mark), 46 (yachting mark), 47 (heliport mark), 48 (GPS mark), 49 (seaplane landing mark), 50 (entry prohibited mark), 51 (work in progress mark), 52 (mark with unknown purpose), 54 (channel separation mark), 55 (marine farm mark). <input type="checkbox"/> Illustration		
4	Proposed addition/change: add all (IHO) values to the FC and to mention all with the exception of 9, 15, 53, 56 in the EG. (Value number 38 is skipped; this should be encoded using object class signal station, traffic (SISTAT))		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: At Rws, analyses of several sources for ENC production has been executed. It was found out that the central database for AtoN's (buoys and beacon) contains of a lot maritime S57 attribute values that are not available in the Inland Ecdis Standard. I.e. 401 special purpose buoys (BOYSPP) in the database (and the real world) , 20%, have been registered with a maritime value for CATSPM. (not only for the North sea area ; see attached map.		
7	Proposed amendments to the Feature Catalogue: Add all (IHO) values to the FC		
8	Proposed amendments to the Inland ENC domain in the S-100 registry:		
9	Proposed amendments to the Recommended Validation Checks for IENCs: (6,10,12,37,39,41,45,50,54,55) should be all (*)		
10	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US		



	<input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
11	Name of sender: Visser R Name of authority or company: RWS e-mail address: rene.vis Date (YYYYMMDD): 20190816	Deadline for comments 20191004 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

## Change Request (CR)



0	<b>Title:</b> Emergency wreck marking buoy <b>Version:</b> 2		
1	<b>Encoding Guide Edition 2.5 Request for:</b> <input checked="" type="checkbox"/> <b>an addition</b> (e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements) <input type="checkbox"/> <b>a change</b> (e.g. replacing a picture, illustration or an already existing text) <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue (edition )</b>		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input checked="" type="checkbox"/> for a new page in section O.4 (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input checked="" type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change:		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: The Dutch Rijkswaterstaat and the Flemish Hydrographic office would like to be able to encode emergency wreck marking buoys		
7	Proposed amendments to the Feature Catalogue: Add CATSPM = 27 (general warning mark) to Hydro feature BOYSPP		
8	Proposed amendments to the Inland ENC domain in the S-100 registry:		
9	Proposed amendments to the Recommended Validation Checks for IENCs: check master slave relation BOYSPP to the light object, the top mark object and the radar transponder beacon object. Add CATSPM=27 for BOYSPP		
10	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
11	Name of sender: René Visser Name of authority or company: RWS WVL e-mail address: rene.visser@rws.nl Date (YYYYMMDD): 20190823	Deadline for comments 20191004 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.	

*This page is an optional part of the Change Request*

**O - Buoys, Beacons and Daymarks, Notice Marks**

**0.4.2 Emergency wreck marking buoy**

A Special Purpose Buoy to be used as initial marking of a danger wreck.

Graphics	Encoding Instructions	Object Encoding
<p><i>Real World</i></p>  <p><i>Chart Symbol</i></p> <p><i>INENC Symbolization</i></p> 	<p>A) If it is required to encode an emergency wreck marking buoy, it must be done using a BOYSPP object</p> <p>B) BOYSPP is encoded as master object to the light object, the top mark object and the radar transponder beacon object.</p> <p>C) Mandatory attributes must be coded to ensure proper presentation.</p> <p>D) EU: The designator as it appears on the buoy, if it can be read from a passing vessel, should be encoded in the attribute OBJNAM. Administrative information on the buoys that is not relevant for navigation should be encoded in the attribute NOBJNM. It is not repeated for each slave object.</p>	<p><b><u>Object Encoding</u></b>  <b>Object Class = BOYSPP(P)</b>  (M) BOYSHP = [4 (pillar), 5 (spar)]  (M) CATSPM = [27 (general warning mark)]  (M) COLOUR = [5,6 (blue, yellow)]  (O) CONRAD = [3 (radar conspicuous (has radar reflector))]  (C) OBJNAM = (Refer to letter D)  (O) NOBJNM = (Refer to letter D)  (M) SCAMIN = [EU: 22000; US: 60000]  (C) SORDAT = [YYYYMMDD]  (C) SORIND = (Refer to Section B, General Guidance)</p> <p><b><u>Object Encoding</u></b>  <b>Object Class = LIGHTS(P)</b>  (M) COLOUR = [5,6 (blue, yellow)]  (M) EXCLIT = [1 (light shown without change of character), 2 (daytime light), 3 (fog light), 4 (night light)]  (M) LITCHR = [17 (occulting alternating)]  (M) SIGPER = [3]  (M) SIGGRP = [(1)]  (M) SIGSEQ = [1.00+(0.50)+1.00+(0.50)] (seconds)  (M) VALNMR = [4]  (M) SCAMIN = [45000]  (C) SORDAT = [YYYYMMDD]  (C) SORIND = (Refer to Section B, General Guidance)</p> <p><b><u>Object Encoding</u></b>  <b>Object Class = TOPMAR(P)</b>  (M) COLOUR = [6 (yellow)]  (M) TOPSHP = [8 (upright cross (St George=s cross)]  (M) SCAMIN = [EU: 45000; US: 60000]  (C) SORDAT = [YYYYMMDD]</p>

(C) SORIND = (Refer to Section B, General Guidance)

**Object Encoding**

**Object Class** = RTPBCN (P)

(M) CATRTB = [2 (racon, radar transponder beacon)]

(M) SIGGRP = [(D)]

## Change Request (CR)

0	<b>Title:</b> Dutch estuary low water reference level (OLW) and LAT <b>Version:</b> 2		
1	<b>Encoding Guide Edition 2.5 Request for:</b> <input type="checkbox"/> <b>an addition</b> (e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements) <input type="checkbox"/> <b>a change</b> (e.g. replacing a picture, illustration or an already existing text) <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue (edition 2.5)</b>		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input checked="" type="checkbox"/> referring to page(s) C.1.4 C.1.5 G.1.1 G.1.2 G.1.3 G.1.4 G.1.5 G.1.6 G.1.8 G.1.9 G.1.11 G.1.12 G.3.3 G.3.4 G.3.7 G.3.20 G.4.5 G.4.8 G.4.9 I.3.5  <i>(e.g.: C.1.5) of the Encoding Guide (Continue with 3 on this page)</i> <input type="checkbox"/> for a new page in section <i>(e.g.: E.1) of the Encoding Guide (Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input checked="" type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change: Add Hydro enumeratie 23 (Lowest Astronomical Tide (LAT)) and new enumeration 45 (Dutch estuary low water reference level (OLW)) to attribute verdat of m_sdat, bridge, cblohd, pipohd, convyr, cranes, flodoc, vehtrf, gatcon,		

	excnst	
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:	
6	Explanation, why this amendment/change is needed:	
7	Proposed amendments to the Feature Catalogue: Object encoding of Object class m_sdat: Add Hydro enumeratie 23 (Lowest Astronomical Tide (LAT)) and new enumeration 45 (Dutch estuary low water reference level (OLW)) to attribute verdat	
8	Proposed amendments to the Inland ENC domain in the S-100 registry: new enumeration 45 (Dutch estuary low water reference level (OLW)) to attribute verdat	
9	Proposed amendments to the Recommended Validation Checks for IENCs: Add Hydro enumeratie 23 (Lowest Astronomical Tide (LAT)) and new enumeration 45 (Dutch estuary low water reference level (OLW)) to attribute verdat of m_sdat, bridge, cblohd, pipohd, convyr, cranes, flodoc, vehtrf, gatcon, excnst	
10	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
11	Name of sender: René Visser Name of authority or company: Rijkswaterstaat e-mail address: rene.visser@rws.nl Date (YYYYMMDD): 20190827	Deadline for comments 20191008 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

See also CR 384

Change Request (CR)



0	<b>Title:</b> Coast guard stations <b>Version:</b> 3		
1	<b>Encoding Guide Edition 2.5 Request for:</b> <input type="checkbox"/> <b>an addition</b> (e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements) <input checked="" type="checkbox"/> <b>a change</b> (e.g. replacing a picture, illustration or an already existing text) <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue (edition 2.5)</b>		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input checked="" type="checkbox"/> referring to page(s) R.3 (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input checked="" type="checkbox"/> for a new page in section R.3 (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input checked="" type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change: Change title of Section R.3 from "Rescue stations" to "Coastguard and Rescue Stations"		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: The Dutch Rijkswaterstaat would like to encode Coastguard Stations. The reason for including the coastguard center is that the Netherlands is actually an estuary. There are a lot of large inland waterways (i.e. Wadden) that connect with coastal water, and that is why there are also coast guard centers to encode		
7	Proposed amendments to the Feature Catalogue: Add Hydro Feature CGUSTA with all attributes and enumerations.		
8	Proposed amendments to the Inland ENC domain in the S-100 registry:		
9	Proposed amendments to the Recommended Validation Checks for IENCs: Add Hydro Feature CGUSTA with all attributes and enumerations.		
10	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>		
11	Name of sender: René Visser Name of authority or company: RWS e-mail address: rene.visser@rws.nl Date (YYYYMMDD): 20190827	Deadline for comments 20191008 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.	

*This page is an optional part of the Change Request*

**R - Services**

**R.3.2 Coastguard Station (O)**

Watch keeping stations at which a watch is kept either continuously, or at certain times only. (IHO Chart Specifications, M-4)

Graphics	Encoding Instructions	Object Encoding
<p><i>Real World</i></p>  <p><i>Chart Symbol</i></p> <p><i>IENC Symbolization</i></p> 	<p>A) If it is required to encode a coastguard station, it must be done using the feature Coastguard Station.</p> <p>B) The <b>Coastguard Station</b> must only be used to describe the function of the coastguard station, independent of the building or structure itself. If it is required to encode the building or structure in which the coastguard station operates, it must be done using an appropriate feature (e.g. <b>Building, Landmark</b>).</p> <p>C) Maritime Rescue and Coordination Centres (MRCC) are part of a constantly manned communications watch system. If it is required to encode a MRCC, it should be done using <b>Coastguard Station</b>, with complex attribute <b>information</b> (sub-attribute <b>text</b>) = <i>Maritime Rescue and Coordination Centre</i>. The name of the station may be populated using the complex attribute <b>feature name</b> (sub-attribute <b>name</b>), e.g. <i>MRCC Swansea</i>.</p> <p>D) Each VHF-channel should be indicated, using the attribute <b>communication channel</b>.</p> <p>E) A Rescue Station should be encoded using <b>Rescue Station</b> (see R.3.1)</p> <p>F) If a structured external XML-file with more detailed communication information is available, the reference to the file has to be entered in the TXTDSC attribute.</p> <p>G) Use STATUS if any of the conditions apply.</p>	<p><b>Object Encoding</b></p> <p><b>Object Class</b> = CGUSTA(P)</p> <p>(M) COMCHA = [[XXXXX];[XXXXX];...]</p> <p>(O) DATSTA = (Refer to Section J, DATSTA, DATEND, PERSTA and PEREND)</p> <p>(O) DATEND = (Refer to Section J, DATSTA, DATEND, PERSTA and PEREND)</p> <p>(O) OBJNAM = [Name]</p> <p>(O) NOBJNM = (Refer to Section B, General Guidance)</p> <p>(O) STATUS = [2 (occasional, seasonal), 4 (not in use)]</p> <p>(O) INFORM = (additional information)</p> <p>(O) NINFOM = (Refer to Section B, General Guidance)</p> <p>(O) SCAMIN = [8000]</p> <p>(O) TXTDSC = (external text file - English)</p> <p>(O) NTXTDS = (external text file - Natl. language)</p> <p>(O) SORDAT = [YYYYMMDD]</p> <p>(O) SORIND = (Refer to Section B, General Guidance)</p>






0	<b>Title:</b> Weed/ kelp <b>Version:</b> 2		
1	<b>Encoding Guide Edition 2.5 Request for:</b> <input type="checkbox"/> <b>an addition</b> (e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements) <input type="checkbox"/> <b>a change</b> (e.g. replacing a picture, illustration or an already existing text) <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue (edition 2.5)</b>		
2	Sections A and B  This is a request <input type="checkbox"/> referring to lit. <input type="checkbox"/> for a new lit.  <i>(Continue with 4 on this page)</i>	Sections C to U  This is a request <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i> <input checked="" type="checkbox"/> for a new page in section J.4 (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>	Section V to Z and Annexes AA to AF  This is a request <input type="checkbox"/> referring to section <i>(Continue with 4 on this page)</i> <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i>
3	<input type="checkbox"/> Definition <input type="checkbox"/> Picture: <input type="checkbox"/> real world <input type="checkbox"/> paper chart <input type="checkbox"/> IENC <input type="checkbox"/> Coding instruction lit. <input type="checkbox"/> Object coding of object class <input type="checkbox"/> Illustration		
4	Proposed addition/change:		
5	Proposed picture/illustration: Attach the file to the form, please. Name of file:		
6	Explanation, why this amendment/change is needed: The Dutch Rijkswaterstaat would like to be able to encode the presence of weed/kelp. In recent years, the number of permanent places with seaweed has been growing. ( Climate change?) Inland shipping is increasingly being hindered		
7	Proposed amendments to the Feature Catalogue: add HYDRO feature WEDKLP, with all attributes and enumerations. add ;CATWED = 1 (kelp), 2 (sea weed), 3 (sea grass), 4 (sargasso)		
8	Proposed amendments to the Inland ENC domain in the S-100 registry:		
9	Proposed amendments to the Recommended Validation Checks for IENCs: : add HYDRO feature WEDKLP, with all attributes and enumerations. add ;CATWED = 1 (kelp), 2 (sea weed), 3 (sea grass), 4 (sargasso)		
10	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia  <i>(description of an other area of applicability, e.g. a country)</i>		
11	Name of sender: René Visser Name of authority or company: RWS e-mail address: rene.visser@rws.nl Date (YYYYMMDD): 20190827	Deadline for comments 20191008 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.	

## J.4 Nature of Riverbed

### J.4.2 Weed/Kelp (O)

- Seaweed is the general name for marine plants of the Algae class which grow in long narrow ribbons. (International Maritime Dictionary, 2nd Ed.)
- Kelp is one of an order (laminariales) of usually large, blade-shaped or vine-like brown algae. (IHO Dictionary, S-32, 5th Edition, 2611)<sup>[SEP]</sup>

Graphics	Encoding Instructions	Object Encoding
<p><i>Real World</i></p>  <p><i>Chart Symbol</i></p>  <p><i>IENC Symbolization</i></p> 	<p>A) If it is required to encode the presence of weed or kelp, it must be done using the feature WEDKLP</p>	<p><b><u>Object Encoding</u></b></p> <p><b>Object Class</b> = WEDKLP (P,A)</p> <p>(M) CATWED = [1 (kelp), 2 (sea weed), 3 (sea grass), 4 (sargasso)]</p> <p>(M) SCAMIN = [22000]</p> <p>(C) SORDAT = [YYYYMMDD]</p> <p>(C) SORIND = (Refer to Section B, General Guidance)</p>

Change Request (CR)

0	<p><b>Title:</b> TimeZone information in Facility files  <b>CR number:</b> 399                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqBGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqBGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.4 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input checked="" type="checkbox"/> referring to section AF <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Add an additional field TimeZoneName at the end of the XSD element facility (after the field communication_information) on page 298.</p> <pre>&lt;xs:element name="timezonename" type="xs:string" minOccurs="0"/&gt;</pre> <p>Use the TimeZone names as given in the Time Zone Database maintained by IANA (Internet Assigned Numbers Authority) - <a href="https://www.iana.org/time-zones">https://www.iana.org/time-zones</a>.</p> <p>The change is backwards compatible meaning the existing facility files don't have to be changed in order to validate against the new XSD..</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  The times mentioned in the facility file are presumed to be in local time. Within RIS COMEX this information is used for voyage calculation. For proper calculation these times are converted to UTC time. However the used timezone information is missing in the facility file.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document):</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs:</p>		
11	<p>Proposed symbol(s):  Attach the file to the form, please. Name of file:</p>		
12	<p>Proposed applicability: <i>mark all applicable boxes</i></p> <p><input checked="" type="checkbox"/> US  <input checked="" type="checkbox"/> Europe (without Russia)  <input checked="" type="checkbox"/> Russia  <input checked="" type="checkbox"/> South America</p>		

	<input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
13	Name of sender: Tony Daems Name of authority or company: ALSIC BVBA e-mail address: tony.daems@alsic.be Date (YYYYMMDD): 20190906	Deadline for comments 20191018 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

## Change Request (CR)

0	<p><b>Title:</b> Language indication and multiple language support for Remarks in Facility.XML  <b>CR number:</b> 400                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.4 Request for:</b> <i>(please enter the last published edition of the Encoding Guide)</i></p> <p><input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements</p> <p><input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text</p> <p><input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> <i>(last published edition)</i></p> <p><input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> <i>(last published edition)</i></p>		
2	<p>Sections A and B</p> <p>This is a request</p> <p><input type="checkbox"/> referring to lit.</p> <p><input type="checkbox"/> for a new lit.</p> <p><i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request</p> <p><input type="checkbox"/> referring to page(s) <i>(e.g.: C.1.5)</i> of the Encoding Guide <i>(Continue with 3 on this page)</i></p> <p><input type="checkbox"/> for a new page in section <i>(e.g.: E.1)</i> of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request</p> <p><input checked="" type="checkbox"/> referring to section AF <i>(Continue with 4 on this page)</i></p> <p><input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition</p> <p><input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC</p> <p><input type="checkbox"/> Coding instruction lit.</p> <p><input type="checkbox"/> Object coding of object class</p> <p><input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Add an additional type TRemark to the XSD structure (page 315).</p> <pre>&lt;xs:complexType name="TRemark"&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="xs:string"&gt;       &lt;xs:attribute name="language" type="xs:string" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt;</pre> <p>The language can be filled in using an ISO-639 code (e.g. NL, EN, ...).</p> <p>Change all occurrences of the field remark from (pages 298-315) from:  &lt;xs:element name="remark" type="xs:string" minOccurs="0"/&gt;  To:  &lt;xs:element name="remark" type="TRemark" minOccurs="0" maxOccurs="unbounded" /&gt;</p> <p>The change is backwards compatible meaning the existing facility files don't have to be changed in order to validate against the new XSD..</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  Sometimes additional information is given in the facility files for certain operation times with the field Remark. However certain countries are obliged to give the information in different languages. The language indicator is useful to indicate in which language the remarks are provided.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		

9	Proposed amendments to the Product Specification for Inland ENCs (main document):	
10	Proposed amendments to the Recommended Validation Checks for IENCs:	
11	Proposed symbol(s): Attach the file to the form, please. Name of file:	
12	Proposed applicability: <i>mark all applicable boxes</i> <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Europe (without Russia) <input checked="" type="checkbox"/> Russia <input checked="" type="checkbox"/> South America <input checked="" type="checkbox"/> Asia <i>(description of another area of applicability, e.g. a country)</i>	
13	Name of sender: Tony Daems Name of authority or company: ALSIC BVBA e-mail address: tony.daems@alsic.be Date (YYYYMMDD): 20190906	Deadline for comments 20191018 (6 weeks)  To be filled in by a member of the Core Group: <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected Will become part of edition 2.5 of the EG.

Change Request (CR)

0	<p><b>Title:</b> Indication of Target Group and Direction for operation time slot in Facility XML  <b>CR number:</b> 401                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDW0etW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.5 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input checked="" type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    <i>(Continue with 4 on this page)</i></p>	<p>Sections C to U</p> <p>This is a request  <input type="checkbox"/> referring to page(s) (e.g.: C.1.5) of the Encoding Guide <i>(Continue with 3 on this page)</i>  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input checked="" type="checkbox"/> referring to section AF <i>(Continue with 4 on this page)</i>  <input type="checkbox"/> for a new Annex <i>(Continue with 6 on this page and add the proposal on page 2 after removing form protection)</i></p>
3	<p><input type="checkbox"/> Definition  <input type="checkbox"/> Picture: <input type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input type="checkbox"/> Object coding of object class  <input type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Add element target_group to complex type TTimeFrame (page 313) to XSD:</p> <pre>&lt;xs:element name="target_group" type="TTargetGroup" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Target group information&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre> <p>Add complex type TTargetGroup to XSD structure (page 315ff) to XSD:</p> <pre>&lt;xs:complexType name="TTargetGroup"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="target_group_code" type="TTargetGroupCode" default="all vessels"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Target group (vessel type)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="direction_code" type="TDirectionCode" default="all directions"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Upstream or downstream traffic, or both&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt;</pre>		

	<p>Add simple type TTargetGroupCode (page 315ff) to XSD:</p> <pre>&lt;xs:simpleType name="TTargetGroupCode"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="all vessels"/&gt;     &lt;xs:enumeration value="commercial vessels"/&gt;     &lt;xs:enumeration value="passenger vessels"/&gt;     &lt;xs:enumeration value="pleasure crafts"/&gt;     &lt;xs:enumeration value="small crafts"/&gt;     &lt;xs:enumeration value="convoys"/&gt;     &lt;xs:enumeration value="pushed convoys"/&gt;     &lt;xs:enumeration value="convoys with dangerous goods"/&gt;     &lt;xs:enumeration value="vessels with dangerous goods"/&gt;     &lt;xs:enumeration value="motorized vessels"/&gt;     &lt;xs:enumeration value="non-motorized vessels"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre> <p>Add simple type TDirectionCode (page 315ff) to XSD:</p> <pre>&lt;xs:simpleType name="TDirectionCode"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="all directions"/&gt;     &lt;xs:enumeration value="upstream"/&gt;     &lt;xs:enumeration value="downstream"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre> <p>The change is backwards compatible meaning the existing facility files don't have to be changed in order to validate against the new XSD.</p>		
5	<p>Proposed picture/illustration: Attach the file to the form, please. Name of file: direction_code.JPG target_group_code.JPG TTargetGroup.JPG TTimeFrame.JPG</p>		
6	<p>Explanation, why this amendment/change is needed: The CR results out of a requirement for RIS COMEX. Often facilities like locks or operable bridges reserve certain time slots for certain vessels (either specific vessel types or from a certain direction). It is important for voyage planning software to know, which vessels can pass at what time in order to find ideal routes and calculate realistic ETAs.</p>		
7	<p>Proposed amendments to the Feature Catalogue:</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry:</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document):</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs:</p>		
11	<p>Proposed symbol(s): Attach the file to the form, please. Name of file:</p>		
12	<p>Proposed applicability: <i>mark all applicable boxes</i></p> <p><input checked="" type="checkbox"/> US  <input checked="" type="checkbox"/> Europe (without Russia)  <input checked="" type="checkbox"/> Russia  <input checked="" type="checkbox"/> South America  <input checked="" type="checkbox"/> Asia</p> <p><i>(description of another area of applicability, e.g. a country)</i></p>		
13	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Name of sender: Jonathan Gallagher  Name of authority or company: viadonau  e-mail address: jonathan.gallagher@viadonau.org  Date (YYYYMMDD): 20190906</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Deadline for comments 20191018 (6 weeks)</p> <p>To be filled in by a member of the Core Group:  <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected  Will become part of edition 2.5 of the EG.</p> </td> </tr> </table>	<p>Name of sender: Jonathan Gallagher  Name of authority or company: viadonau  e-mail address: jonathan.gallagher@viadonau.org  Date (YYYYMMDD): 20190906</p>	<p>Deadline for comments 20191018 (6 weeks)</p> <p>To be filled in by a member of the Core Group:  <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected  Will become part of edition 2.5 of the EG.</p>
<p>Name of sender: Jonathan Gallagher  Name of authority or company: viadonau  e-mail address: jonathan.gallagher@viadonau.org  Date (YYYYMMDD): 20190906</p>	<p>Deadline for comments 20191018 (6 weeks)</p> <p>To be filled in by a member of the Core Group:  <input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected  Will become part of edition 2.5 of the EG.</p>		









































## Change Request (CR)
















0	<p><b>Title:</b> MMSI and AtoN type for buoys and beacons  <b>CR number:</b> 402                      <b>Version:</b> 0  <i>The next available CR number can be found in the currently valid Change Request List under the following URL:</i>  <a href="https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1darzMTlkqN4nDWOetW_6vCuqbGukEvN_9XYohwB_QLE/edit?usp=sharing</a></p>		
1	<p><b>Encoding Guide Edition 2.4 Request for:</b> (please enter the last published edition of the Encoding Guide)  <input checked="" type="checkbox"/> <b>an addition</b> e.g. new picture, new coding instruction or new real world entity, which is encoded by already existing object classes, attributes and attribute values, but requires no alteration of existing elements  <input type="checkbox"/> <b>a change</b> e.g. replacing a picture, illustration or an already existing text  <input checked="" type="checkbox"/> <b>an addition/change that affects the Feature Catalogue edition 2.5</b> (last published edition)  <input type="checkbox"/> <b>an addition/change that affects the Portrayal Catalogue edition</b> (last published edition)</p>		
2	<p>Sections A and B</p> <p>This is a request  <input type="checkbox"/> referring to lit.  <input type="checkbox"/> for a new lit.    (Continue with 4 on this page)</p>	<p>Sections C to U</p> <p>This is a request  <input checked="" type="checkbox"/> referring to page(s) O.1.1, O.1.3, O.1.5, O.1.9, O.1.2, O.2.1, O.4.1    (e.g.: C.1.5) of the Encoding Guide (Continue with 3 on this page)  <input type="checkbox"/> for a new page in section (e.g.: E.1) of the Encoding Guide (Continue with 6 on this page and add the proposal on page 2 after removing form protection)</p>	<p>Section V to Z and Annexes AA to AF</p> <p>This is a request  <input type="checkbox"/> referring to section (Continue with 4 on this page)  <input type="checkbox"/> for a new Annex (Continue with 6 on this page and add the proposal on page 2 after removing form protection)</p>
3	<p><input type="checkbox"/> Definition  <input checked="" type="checkbox"/> Picture: <input checked="" type="checkbox"/> real world    <input type="checkbox"/> paper chart    <input type="checkbox"/> IENC  <input type="checkbox"/> Coding instruction lit.  <input checked="" type="checkbox"/> Object coding of object class bcnlst, boylat, BOYSPP  <input checked="" type="checkbox"/> Illustration</p>		
4	<p>Proposed addition/change:  Add (O) mmsino (MMSI number), 9 digits (characters), Format: xxxxxxxxx (e.g. 366777490), type TE (free text), unit=None  Add (O) typatn (Type of AtoN) = 1 (AtoN), 2 (Real AIS AtoN), 3 (Virtual AIS AtoN)</p>		
5	<p>Proposed picture/illustration:  Attach the file to the form, please. Name of file:</p>		
6	<p>Explanation, why this amendment/change is needed:  Like in maritime ECDIS (S-101, Annex A) we also need an unique MMSI (Maritime Mobile Service Identity) code for Real AIS AtoNs (aids to navigation) in Inland ECDIS in order to uniquely identify the objects and to unambigously associate AIS-AtoN messages.  ECDIS manufactures have to place different symbols depending on their type (AtoN, real AIS AtoN, virtual AIS AtoN) and current position (on position, off position, missing). The off position symbol is placed where the AtoN actually IS, but should not be at this position. The missing symbol is placed where the AtoN should be, but is not found there any more.  Using MMSI numbers objects can be identified in Inland ECDIS and AtoN types be represented in the IENC differently.</p>		
7	<p>Proposed amendments to the Feature Catalogue: Add optional attributes mmsion and typatn to feature classes bcnlst, boylat, BOYLAT and BOYSPP</p>		
8	<p>Proposed amendments to the Inland ENC domain in the S-100 registry: typatn</p>		
9	<p>Proposed amendments to the Product Specification for Inland ENCs (main document): ---</p>		
10	<p>Proposed amendments to the Recommended Validation Checks for IENCs: Add optional attributes mmsion and typatn to feature classes bcnlst, boylat, BOYLAT and BOYSPP</p>		
11	<p>Proposed symbol(s):  Attach the file to the form, please. Name of file:  Inland_AtoN_Station_symbols.xlsx (AtoNs on position, off position, missing),  AIS_AtoN.jpg: attach in Encoding Guide, chapter O.1.1</p>		

12	<p>Proposed applicability: <i>mark all applicable boxes</i></p> <p><input type="checkbox"/> US</p> <p><input checked="" type="checkbox"/> Europe (without Russia)</p> <p><input type="checkbox"/> Russia</p> <p><input type="checkbox"/> South America</p> <p><input type="checkbox"/> Asia</p> <p><i>(description of another area of applicability, e.g. a country)</i></p>		
13	<table border="1"> <tr> <td data-bbox="247 414 821 568"> <p>Name of sender: Wieland Haupt</p> <p>Name of authority or company: WSV, Germany</p> <p>e-mail address: wieland.haupt@wsv.bund.de</p> <p>Date (YYYYMMDD): 20190911</p> </td> <td data-bbox="821 414 1401 568"> <p>Deadline for comments 20191023 (6 weeks)</p> <p>To be filled in by a member of the Core Group:</p> <p><input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected</p> <p>Will become part of edition 2.5 of the EG.</p> </td> </tr> </table>	<p>Name of sender: Wieland Haupt</p> <p>Name of authority or company: WSV, Germany</p> <p>e-mail address: wieland.haupt@wsv.bund.de</p> <p>Date (YYYYMMDD): 20190911</p>	<p>Deadline for comments 20191023 (6 weeks)</p> <p>To be filled in by a member of the Core Group:</p> <p><input checked="" type="checkbox"/> Proposal adopted/ <input type="checkbox"/> Proposal rejected</p> <p>Will become part of edition 2.5 of the EG.</p>
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**Action point:** Wieland Haupt to check with VTT whether “real AtoN” can be replaced by “physical AtoN”, because this is the more accurate term nowadays used in the maritime area.

Code	Definition Maritime		Code	CEVNI code	on pos-o	miss-m	off pos-f	Name
0	Default, Type of AtoN not specified		0					Default, Type not specified
1	Reference point	fixed aids, landmarks	1	4.A + 4.B	 TOPMA106O	missing  TOPMA106M	Off Posn  TOPMA106F	Channel near the right bank
2	RACON		2	5.A + 5.B	 TOPMA108O	missing  TOPMA108M	Off Posn  TOPMA108F	Channel near the left bank
3	Fixed structures off-shore, such as oil platforms, wind farms. (NOTE 1 – This code should identify an obstruction that is fitted with an AtoN AIS station)		3	4.C + 4.D	 TOPMA110O	missing  TOPMA110M	Off Posn  TOPMA110F	Cross-over right bank
4	Emergency Wreck Marking Buoy		4	5.C + 5D	 TOPMA112O	missing  TOPMA112M	Off Posn  TOPMA112F	Cross-over left bank
8	Leading Light Rear		5	8.C - 8.C2	 BOYINL08O	missing  BOYINL08M	Off Posn  BOYINL08F	Bridge pillar

9	Beacon, Cardinal N	floating aids	6	8.C3 + 8.C4		BOYINL08O	missing 	BOYINL08M	Off Posn 	BOYINL08F	Overhead cable	
10	Beacon, Cardinal E		7	1.A - 1.D		BOYINL01O	BOYINL01M	missing 	Off Posn 	BOYINL01F	Buoy right-hand side	
11	Beacon, Cardinal S		8	2.A - 2.D		BOYINL02O	BOYINL02M	missing 	Off Posn 	BOYINL02F	Buoy left-hand side	
12	Beacon, Cardinal W		9	3.A - 3.D		BOYINL03O	BOYINL03M	missing 	Off Posn 	BOYINL03F	Bifurcation	
13	Beacon, Port hand		10	3.E1 + 3.F1		BOYINL03OR	BOYINL03MR	missing 	Off Posn 	BOYINL03FR	Bifurcation, pass right-hand side	
14	Beacon, Starboard hand		11	3.E + 3.F		BOYINL03OL	BOYINL03ML	missing 	Off Posn 	BOYINL03FL	Bifurcation, pass left-hand side	
15	Beacon, Preferred Channel port hand		12	1.F + 1.F1				missing 		Off Posn 		Danger point or obstacle right-hand side

				BOYLAT26O	BOYLAT26M	BOYLAT26F		
16	Beacon, Preferred Channel starboard hand		13	2.F + 2.F1 	missing 	Off Posn 	Danger point or obstacle left-hand side	
				BOYLAT27O	BOYLAT27M	BOYLAT27F		
17	Beacon, Isolated danger		14	- 	missing 	Off Posn 	Berth right-hand side	
				DFND01O	DFND01M	DFND01F		
18	Beacon, Safe water		15	- 	missing 	Off Posn 	Berth left-hand side	
				DFND02O	DFND02M	DFND02F		
19	Beacon, Special mark	other	17	A.1 	missing 	Off Posn 	No entry, combined with direction of impact	
					NMKPRB02O + DIRIMP	NMKPRB02M + DIRIMP	NMKPRB02F + DIRIMP	
23	Cardinal Mark W	reserv	20	- 	missing 	Off Posn 	Signal float	
					SIGFLT01O	SIGFLT01M	SIGFLT01F	
24	Port hand Mark		21					Reserved for future use
25	Starboard hand Mark	22					Reserved for future use	

26	Preferred Channel Port hand	23					Reserved for future use
27	Preferred Channel Starboard hand	24					Reserved for future use
28	Isolated danger	25					Reserved for future use
29	Safe Water	26					Reserved for future use
		27					Reserved for future use
		28					Reserved for future use
		29					Reserved for future use
31	Light Vessel/LANBY/Rigs	30					Reserved for future use

