

Paper for Consideration by ENCWG**T&P information in ENCs**

Submitted by:	ENCWG Chair and NCWG Chair
Executive Summary:	T&Ps in ENC
Related Documents:	HSSC8/28
Related Projects:	NA

Introduction / Background

During HSSC 8 the representative of INTERTANKO shared Mariner concerns there was different T&P information on paper charts vs ENCs for a number of countries. The committee was made aware that in the absence of T&P notices in ENC products users are turning to Marine Information Overlays in ECDIS to fill this gap. It was acknowledged by HSSC that some ENC Producers do not create equivalent ENC updates where they are issuing paper chart T&P notices. The lack of proper guidance or IHO authoritative documentation for HOs and end users was noted by HSSC.

Analysis/Discussion

HSSC assigned action 28 to the ENCWG and NCWG in order to develop guidance for HOs to enable the correct encoding of temporary and preliminary NMs in ENC. The document must be educational with a focus on informing the Maritime industry in particular Port State Control Authorities. The submission when complete will be approved by HSSC 9.

It is suggested the ENCWG review current guidance in the S-57 Use of the Object Catalogue (UOC) for temporal attribution given the changes that have been made to the S-52 presentation library to display clearly in ECDIS ENC features that carry these attributes.

Work with the NCWG to create new content explaining the fundamental differences between a T&P NM for a paper chart and an equivalent ENC update. Include examples of ENC encoding of temporal attributes displayed in ECDIS using the new S-52 Presentation Library edition 4.0

The new document will be reviewed and approved by both WGs prior to publication and final approval by HSSC9

Recommendations

It is recommended that the ENCWG endorse the actions above and develop new content where necessary.

Justification and Impacts

The document must clarify the position regarding T&P notices on paper charts and the equivalent ENC update

Action Required of ENC WG

The ENC WG is invited to:

- a. endorse the proposal and develop a draft document

Appendix A

S-57 UOC edition 4.0.0 – June 2014

2.6.2 Guidelines for encoding Temporary and Preliminary ENC Updates

2.6.2.1 Introduction

The following provides high level guidance for the promulgation of the equivalent of paper chart Temporary (T) and Preliminary (P) Notices to Mariners (NMs) via ENC Updates. This guidance allows for some latitude in its application and is dependent on the assessment of each particular case, and as such relies ultimately on the judgement of each ENC Producing Authority.

2.6.2.2 Temporary (T) Notices to Mariners (see S-4 – B-633)

1. Temporary Notices to Mariners, (T)NMs, for paper charts are defined in S-4, Section B-600. A (T)NM promulgates navigationally significant information that will remain valid only for a limited period of time.

For the paper chart, the convention is for the mariner to insert the Update on the chart in pencil, and erase it when the (T)NM is cancelled.

S-57 provides mechanisms which allow ENCs to be automatically updated (ER application profile1). This allows the affected ENC(s) to be continually updated in a timely manner for the duration of the NM without additional workload for the mariner.

Producing Authorities should promulgate temporary navigationally significant information by ENC Update to provide the ECDIS user with an updated SENC. This service corresponds to the service that (T)NMs offer to the paper chart user.

2. ER encoding for an ENC and (T)NM for the paper chart are two completely different communication processes for promulgating information to the mariner. Since these processes are different (but not supposed to be independent), and the products to which they apply are also different, it is recommended that ENC Updates be derived from the source information rather than the paper chart (T)NM. Often the (T)NM for paper chart does not provide enough detail to apply the relevant ENC Update.

3. If possible the information should be encoded with the relevant S-57 objects. However, HO's should consider the following:

- An ENC Update must not be initiated if the information will no longer be valid by the time it is received by the mariner; this will depend upon the timescales relating to the Producer Nation's ENC Updating regime. Shorter time periods may be covered by Radio Navigational Warnings (RNW). If known, the ENC Update should include an indication of how long the temporary change will remain in force.
- If it is unlikely that the HO will be notified when a temporary change will revert to its original charted state, the HO should consider an alternative method such as a general note or by issuing an ENC Update explaining, for example, that the aids to navigation within an area are reported to be unreliable.

It is important that HO's should consider constraints of time when identifying the encoding method. Time consuming and unnecessarily complex methods of encoding should be avoided.

4. The overuse of **CTNARE** objects (especially **CTNARE** of type area – see clause 6.6) for temporary information should be avoided. The **CTNARE** object is used when it is relevant for the situation and/or when a particular change needs a special warning. **CTNARE** may be used when the relevant objects cannot be encoded, e.g. information cannot be displayed clearly or cannot be easily promulgated due to time constraints

5. To correctly encode an ENC Update the source information is essential in determining which elements of the Update are reliable, which are permanent and which are temporary. The attribute STATUS with value 7 (temporary) should only be used in an Update when it is certain that the status of an object is confirmed as temporary.

6. Use of attributes DATSTA and DATEND:

The earliest date on which an object will be present (DATSTA) and the latest date on which an object will be present (DATEND) must only be encoded when known. When these dates are encoded for navigational aids, DATSTA and DATEND must be populated on each component of the aid.

The ENC Update should be issued as close as possible to the earliest date of the change (DATSTA), unless it is appropriate to provide the information well in advance. An object no longer present should be removed from the display by issuing a further Update as soon as possible after the return to the original charted state (DATEND). The timing of the issue of these Updates will depend upon the Producing Authority's ENC Updating regime and its corresponding timescales.

When an ENC Update promulgates information well in advance and uses DATSTA and DATEND, a **CTNARE** object may be used in order to inform mariners that temporal information exists at some future point in time.

NOTE: some older legacy ECDIS's may not have the functionality to manage temporal information correctly or may have implemented it incorrectly. Some ENC producers may wish to include additional encoding to safeguard against this. For example, insert a **CTNARE** describing the changes and timings.

7. The attribute INFORM should be used to provide supplementary or contextual information when encoding temporary (or preliminary) information. When the text is too long to be encoded using INFORM (see clause 2.3), the attribute TXTDSC should be used. Encoders using INFORM/TXTDSC to provide positional information must express the coordinate values in WGS 84 and in accordance with S-4 – B-131. If it is deemed necessary a picture file (PICREP) may be referenced. If the relevant object class (e.g. **CTNARE**) does not have PICREP as an allowable attribute, then PICREP may be populated for a **M_NPUB** object (see clause 2.5) which shares the same geometry as the relevant object. As **M_NPUB** objects of type area do not display in ECDIS a reference that a related **M_NPUB** object exists should be included using the attributes INFORM or TXTDSC for the associated object.

8. ENC Updates issued for temporary information should be carefully managed and reviewed regularly to consider whether further action is necessary. New information may have been received that necessitates the issuing of a new Update to modify or cancel the previous one. Producing Authorities should make it easy to recover the original charted state before the temporary changes came into effect.

9. Further verification is recommended to make sure that the encoded ENC Update is consistent with the corresponding paper chart NM.