INTERNATIONAL HYDROGRAPHIC ORGANIZATION

ORGANISATION HYDROGRAPHIQUE INTERNATIONALE

ENC UPDATING WORKING GROUP (EUWG)

[A Working Group of the Hydrographic Services and Standards Committee - HSSC]

Chairman: Yves Le Franc (SHOM)
Vice-Chairman: Richard Coombes (UKHO)

EUWG Letter 04/2009

Date 23 July 2009

To EUWG Members

Dear Colleagues,

Subject: revised draft of guidelines

Many thanks to 13 WG members who responded to EUWG letter 03/2009, covering the first draft of the guidelines for encoding temporary and preliminary ENC updates.
Annex A shows the members responses to the specific questions that were included as a response form, and some additional comments.
Most of responses received a clear majority of 'Yes". Responses related to the encoding for *buoy temporary moved* (part A - § 7.a) and for *light temporary extinguished* (part A – § 7.b) easily show the preferred methods.
As an exception, no consensus has been obtained on the sentence "(T/P) NMs for paper charts should indicate "Affected ENC [cell name] has been updated accordingly"" (part A – general § 8 and part B – general - § 9). So, it is proposed to remove this sentence and to raise this issue to the CSPCWG as suggested by AU.
With the help of the vice-chair, all the comments and objections have been carefully reviewed to amend the draft as we believe to be appropriate and without contradicting the majority of positive responses. The English wording has been significantly improved (thanks to AU and UK) and an introduction has been added. It seems that we are close to achieving the first objective of the group. The resulting draft is presented in annex B for you consideration. Amended texts are highlighted in yellow.
My feeling is that these guidelines give keys to perform appropriate ENC updates and that it should be relevant to encourage HOs to produce them effectively in the short term. At this stage, it seems difficult to give more precise, useful and consensual advice. I believe that this version is ready to be submitted to HSSC for endorsement at its next meeting (Singapore 22-24 October 2009).

If you are pleased with this version, there is no need to respond. However, if you wish to suggest further amendments, please reply by **21 August 2009.**

If endorsed by HSSC, the guidelines could be published as an encoding bulletin (to clearly demonstrate that they are in accordance with the current standards) and could be promoted by an IHB circular letter.

Yours sincerely,

Yves Le Franc,
Chairman

Annex A: responses of members to EUWG 03/2009

Annex B: DRAFT GUIDELINES for ENCODING TEMPORARY and PRELIMINARY ENC UPDATES – Version 0.2

Annex A to EUWG letter 04/2009

Responses received following EUWG letter 03/2009

Part A - Temporary Notice to mariners

GENERAL

1.

Temporary NMs for paper chart are defined in M4/B-600, in particular in § B-601.8 and B-633 (under revision by CSPCWG – see extract from the latest version at the appendix to this document – cf CSPCWG letter 03/2009). (T) NM promulgates navigationally significant information that will remain valid only for a limited period.

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

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

HOs must promulgate Temporary navigationally significant information by ER to provide the ECDIS user with an updated ENC. This service is equivalent to (T) NM for paper charts.

1.	Do you agree text above?	No	Yes

	Comments : **UK** : This already UKHO policy **PT** : Regarding the last sentence and from our experience, we should be aware that : i) There are lots of (T) NM for paper charts that does not necessarily oblige an ENC update; ii) There are lots of ENC updates that does not come from a (T) NM; iii) There is some ER that contains more changes than those mentioned on the NM for paper charts. May I suggest rewording the above paragraph? **AU** : While AU agrees with most of the text, there are a couple of issues that may require further discussion: - The use of the term "must" in the final paragraph. If EUWG is producing "guidelines", does it have the authority to recommend that the IHO mandate the application of (T) NMs? If not, how can this be done? Suggest the last sentence of the final paragraph above be removed. The term "equivalent to" implies "same as", and as the first paragraph below states, the services are not the same. **[txt modified]** **JEP** : The time frame of T NMs in B-633.3 is so important, that I recommend that it not be "hidden" in the reference to B-633, but rather be covered in the text above or in point 3. **SE :** A Temporary update to an ENC cell must not necessarily be sent to the ships ECDIS in form of an "ER", it could as well be included in an "EN" if this is more appropriate. A T-update may even be included in a completely new ENC base cell. **For this reason we suggest "ER", in the text above and in all following paragraphs, to be replaced by the words "ENC updates" or "updates to ENC".** **Chairman:** agree that ER are not "same as" (T) NM for paper chart. Wording adjusted. Through HSSC and IHO authority, EUWG will encourage HOs to produce ER. But this document is a guideline. So, agree that "must" should be avoided in this sentence. JEP comment: text adjusted at point 3, first bullet. Note that ~~see point 3.t~~ ~~T~~he time frame could be different for ER. From the responses received, it should the choice of each HO to align ER production on paper T MN or not.	PT, AU, JEP	FI, ZA, NO, UK, NL, AU, JP, FR, DK, DE, SE

1.B600	Do you agree with M4/B600 for the definition of Temporary NMs for paper chart? Comments:	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR,

	UK : Fully Agree		JEP, DK, DE, SE

2.

ER encoding and T NM for paper chart are two different communication processes for promulgating information. As the process differs, it is recommended that ER encoding be handled from the source information because often T NM for paper chart doesn't provide enough detail to perform the relevant ER encoding.

2.	Do you agree text above? Comments: **UK** : It is accepted that it would be best practice to create "T" ERs from the source data/information. Currently our ENCs are sourced from paper charts. All the decision making in respect of chart content is carried out by the paper chart compilers. When a paper temporary notice is issued this is flagged up and triggers the ER encoding process. However when the UKHO hydrographic database is fully operational it is our intention to source the paper chart from the ENC. When new source data is received it will be assessed for possible ENC/Chart action. In this instance the encoders will have access to the source data. **AU** : This is current AHO policy for all ENC updates (noting that we do not currently apply T and Ps, but if we did this is how they would be done). **[txt modified]** **JEP** : This is very true, and it was evident in our study on T and P NMs that often they did not contain enough information for safe encoding. **SE :** Yes, NM is primarily intended to disseminate information to mariners and not for the internal information dissemination within the HO or Maritime Administration. In Sweden paper charts and ENC are derived from the same database, which is updated by means of all available sources.	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

3.

Information should be encoded with the relevant objects if possible. However, HO should consider that:

- An ER must not be initiated if the information will no longer be valid by the time the ER is received by the mariner. Shorter time periods may be covered by Radio Navigational

Warnings. If possible, the ER information should include an indication of how long it is to remain in force.

- ER should not be used if there is little or no likelihood of the mariner receiving notification when the charted state is restored. Without such notification the ER cannot be cancelled at the correct time.

This implies that HO should consider constraints of time when identifying the encoding method. Time consuming and unnecessarily complex methods of encoding should be avoided.

3.	Do you agree text above? Comments: **FI** : We don't understand the point of second bullet point **Chairman:** wording adjusted. **ZA** : Yes but in order to make such judgements the HO must have some understanding of the time scales involved from the date of release of the ER or EN by the HO to the date of receipt by the end user and to cover this period adequately by a Radio Navigational Warning. **Chairman:** agree. Wording adjusted. **UK** : Any temporal attributed objects are assessed to see if it is prudent or necessary to issue an ER. However this is very much driven by our chart branches. Note: The UKHO ENC Online Updating Service does allow for near real time updating. But again this not the reality at the moment due to the reasons provided above **PT** : Totally agree, mainly the last paragraph when it refers to the constraints of time when identifying the encoding method **AU** : AU agrees with most of what has been stated above. However, the introductory sentence and all that come afterward (in the bullet points and most of the last paragraph) refer to different issues. The first statement relates to using the appropriate S-57 objects, while the rest relates to HOs taking note of time constraints. Recommend that these be treated as separate issues, through splitting into separate paragraphs. **Chairman:** to encode perfectly with relevant objects could be time consuming and antagonist with constraints of time. Then, some simplifications are sometimes needed in encoding. Responses received show that the two aspects have to be balanced in a lot of the cases. So, it seems preferable to connect the two aspects in a same paragraph. With regard to the second bullet point, isn't it the HO that requires notification of when the charted state is restored, so that it can issue another ER to return to the charted state? If so, why should this be a criterion for determining whether an ER is applied? If it is important information of a temporary nature and the HO does not know at the time when the charted state is to be restored, why should they not go forward with the ER in anticipation of finding out at a later date when the charted state will be restored? **[txt**	No FI, AU, JEP	Yes ZA, NO, UK, PT, NL, AU, JP, FR, DK, DE, SE

	modified] **Chairman:** wording adjusted. In some region, it is really difficult for HO to be informed. In this case information promulgated by ER without cancellation will be likely wrong in time. **JEP** : With proper encoding, use of temporal attributes and/or follow up ER, coupled with the real-time updating services, like the one offered from Jeppesen, this can be very elegant. However, legacy systems may not get any benefit from this. I suggest the text makes reference to Encoding Bulletin 24 in point 6 below. **Chairman:** in fact, most of the paragraph purposes are linked. As the guidelines will be short, it seems unnecessary to refer paragraphs each other. SE : Yes, I agree. The present system for updating ENC (by means of ER- or EN-files via RENCs) is not appropriate for sudden unexpected events and for urgent information. Later on we must find appropriate methods for including MSI (Navigational Warnings etc.) into ENC. (In this context I do not understand the meaning of the underlined sentence above.)		

4.

The overuse of CTNARE objects for temporary information should be avoided where possible. The CTNARE object must be used when it is relevant to the object and/or when a particular change needs a special warning. CTNARE may be used when the relevant objects are inappropriate (e.g. information not suitable to be clearly and easily charted and implying caution).

4.	Do you agree text above? Comments: **FI** : It should be clearer that CTNARE may only be used when there is no other means of encoding the feature or there exists a specific reason to give a caution **UK** : NOTE: The UKHO has adopted the policy of using CTNARE (Point) on objects affected by temporary notices. In this instance they do not trigger alarms unnecessarily but does give some visual evidence that something of note exists **PT** : The purpose of CTNARE it is not to give visual evidence of important notes or other issues. For that purpose we have attributes like INFORM and TXTDSC. According to S-57, CTNARE should be used in general, to identify an area where the mariner has to be made aware of circumstances influencing the safety of navigation **AU** : AU agrees that CTNARE must not be overused, but does not agree with the way this paragraph has been worded. An ER of a	No FI, AU,	Yes ZA, NO, UK, PT, NL, JP, FR, JEP, DK, DE, SE

	temporary nature is the same as any ER that is of a permanent nature, with the exception that there is a temporal aspect to the ER, requiring it to be cancelled (by another ER or an EN) at some later date. Why then should the application of temporary change information be any different than the application of permanent change information? The ECDIS is required to indicate to the mariner when a change to the SENC has occurred through the application of ER files (IEC 61174 (Ed 3, 2008) – clause 5.10.1.1), therefore identifying that something relevant to a particular feature(s) has changed. **Chairman:** the operator who sees indications of changes to the SENC through the application of ER and the operator who uses the ECDIS in a later time can be two different persons. CTNARE should only be used when there is no other way of applying the change (or notifying the mariner of a potential change or problem with the data). Refer to AU response to EUWG letter No. 2. AU therefore feels that a simple statement, saying that CTNARE should only be used where there is no other way of conveying the change information clearly to the mariner, would be sufficient. **Chairman**: wording slightly adjusted. The wording allows a little more latitude than FI and AU positions. Then it is more consensual. FI and AU position seems fully compatible with the wording. SE : Yes, CTNARE must be used in a sensible way in situations where special attention is required by the mariner.		

5.

To correctly encode an ER the source information is useful to determine which elements are reliable, which are permanent and which are temporary.

The STATUS attribute value "temporary" should be used when it is sure that the situation of an object is really temporary.

5.	Do you agree text above? Comments: **AU : [txt modified]**	No	Yes FI, ZA, NO, UK, PT, NL, DK, AU, JP, FR, JEP, DE, SE

6.

Use of DATSTA - DATEND

The earliest date on which an object will be present (DATSTA) must be encoded only when known. The latest date on which an object will be present (DATEND) must be encoded only when known.

The Encoding bulletin E24 – april 2009 and following versions should be applied.

EB24 - UOC Clause 2.1.5.1 Seasonal objects and Clause 2.6.1 Issuing updates in advance

Clause 2.1.5.1 of Edition 2.1 (April 2002) of the Use of the Object Catalogue for ENC (S-57 Appendix B.1, Annex A) provides guidance on the use of the attributes PEREND and PERSTA for the encoding of seasonal objects in ENC. Clause 2.6.1 of the Use of the Object Catalogue for ENC provides guidance on the provision of advance update information, including the use of the attributes DATEND and DATSTA.

New tests introduced in Edition 3 (2008) of International Electrotechnical Commission document IEC 61174 - Marine Navigation and Radiocommunication Equipment and Systems – Electronic Chart Display and Information Systems (ECDIS) – Operational Performance Requirements, Methods of Testing and Required Test Results, have resulted in the implementation of the use of these time varying attributes by ECDIS manufacturers in their ECDIS systems.

S-57 Appendix A, Chapter 1 – IHO Object Catalogue contains the list of allowable attributes for S-57 Object Classes. For some navigational aid equipment objects the following time varying attributes are not included in the allowable list:

FOGSIG – PEREND, PERSTA;
RADSTA – PEREND, PERSTA;
RETRFL – DATEND, DATSTA, PEREND, PERSTA;
RTPBCN – PEREND, PERSTA;
TOPMAR – DATEND, DATSTA, PEREND, PERSTA.

Additionally, there are no definitive instructions in S-52 for the implementation of the Master / Slave relationship in ECDIS in order to apply the time varying attributes to these equipment objects by association.

As a result of the above, navigation aids encoded using PEREND and PERSTA for seasonality, or DATEND and DATSTA for advance update information, may be adversely displayed in the ECDIS, i.e. a navigation aid equipment object may appear/disappear or remain on the ECDIS display erroneously. This may result in a loss of confidence in the ECDIS by the mariner.

Encoders are therefore advised that where a seasonal or periodic navigation aid contains at least one of the equipment objects FOGSIG, RADSTA, RETRFL, RTPBCN or TOPMAR, the time varying attributes PEREND and PERSTA should not be populated for any object comprising the navigation aid. To indicate seasonality for such navigation aids to the mariner, the attributes STATUS = 5 (periodic/intermittent) and INFORM containing details of the period should be populated.

Where a navigation aid contains one of the equipment objects RETRFL or TOPMAR, advance update information should not be issued. Therefore the attributes DATSTA or DATEND should not be populated for any object comprising the navigation aid. An update applying the temporal change to the navigation aid should be issued as close as possible to the date of the change.

Alternatively, if time varying attributes DATSTA and/or DATEND have been populated for components of a navigation aid that contains at least one of the equipment objects RETRFL or TOPMAR, a separate update applying the temporal change to these equipment objects should be issued as close as possible to the date of the change.

[April 2009]

6.a	Except for the double encoding aspect, do you agree text above and the encoding bulletin n°24? Comments : **UK** : Temporal attributes are a good way of managing objects on the display. Redundant objects (no longer displayed) are removed from the ENC when the paper chart T notice is cancelled. **PT** : We fully agree with the idea stated at the EB above, that the updates should be issued as close as possible to the date of the change **NL** : NL has no experience with these methods. However it must be kept in mind that some older ECDIS/ECS cannot handle these DATSTA /DATEND attributes **AU** : With regards to the last paragraph before the Encoding Bulletin, it is unlikely that there will be any "following versions" of this Encoding Bulletin. It may perhaps be more relevant to refer to S-57 Edition 3.1 Supplement No. 2 (June 2009) which is now published on the IHO web site. Over time, the likelihood is that	No JP	Yes FI, ZA, NO, UK, PT, NL, AU, FR, JEP, DK, DE, SE

	Encoding Bulletin No. 24 will be cancelled **JP** : 1) Japan agrees in encoding an object which will be added or deleted in the later time by means of DATSTA and DATEND attributes. But in order to inform mariners that such object will vary in the later time, another object should be allowed to be encoded. Because some ECDIS which do not work correctly on DATSTA/DATEND still exist on the board, and an object with DATSTA/DATEND might happen to display differently between the time of route planning and that of route monitoring. 2) For the case that an object should be added or deleted in later time but on unknown date or on not confirmed date, guidelines for encoding should be added. **JEP** : When taking into account the outcome of the Ottawa talks between Coombes and Wootton. Also the possibility of legacy systems displaying this erroneously should be noted. Note that no double encoding is required in this bulletin. Richard Coombes will have some discussions about this topic (capacities of older legacy ECDIS) during next DIPWG and TSMAD meeting (Ottawa, Canada, 4-8 May 2009). Report of discussions will be addressed to you later. Then, we will have to choose our position. **UK** : UKHO views on this have been documented previously. Members should be aware that there are still a lot of legacy ECDIS/ECS in use. That is between 5 and 10 years old. HOs should be mindful of this when relying solely on temporal attribution **FR** : No double encoding **Chairman:** text modified to refer to S-57 Edition 3.1 Supplement No. 2 (June 2009) instead EB n°24, to highlight that ER should be issued close to date of change and that objects no longer present should be removed, to introduce a note on older legacy systems, to suggest the use of CTNARE for information promulgated well in advance.		

7.
The INFORM attribute should be used to give supplementary or contextual information when encoding a (T) NM. When the text is too long to be encoded with INFORM, the attribute TXTDSC must be used. Geographical positions must be expressed in WGS 84 datum and according to M4 §B-131.

7.	Do you agree text above? Comments: **ZA** : Comments: In our case we always encode the full NM source in the INFORM field also i.e. NM 91(T)/08 because the SORIND field only contains the string ZA,ZA,reprt,NtM-6.91(1) **[txt modified]** **UK :** UKHO policy is to only use INFORM for very short phrases that	No AU, JEP, SE	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, DK, DE, SE

	act as a "Qualifier" to an attribute. Otherwise TXTDSC files are used for longer text strings. Some ECDIS/ECS will only display up to 300 characters for an INFORM text string. **PT** : Since the beginning, when IHPT starts the production of ENC and updates, we have found that the attributes INFORM and NINFOM should be used for short textual information, otherwise the mariner will see a very long string of words on the ECDIS display **AU** : AU is unsure what the intention of this paragraph is. Are we trying to say that in all cases INFORM/TXTDSC should be used (e.g. to incorporate the contents of the (T) NM as listed in the paper chart NMs)? Or to merely indicate the corresponding paper chart (T) NM number? Or to merely encode supplementary information related to the change that cannot be encoded in any other way (which is the way AU would interpret this)? **Chairman:** mainly to encode supplementary information related to the change that cannot be encoded in any other way but could also be used for other purpose (eg the content of the (T) NM). The wording is open as practices differ. Text adjusted. As for AU comment for paragraph 4 above, we feel that a (T) NM should be applied as for any other update where possible, but can see the merit of including some relationship of a temporary change to the corresponding paper chart (T) NM if the EUWG feels this would be of additional use to the mariner. Perhaps an example here would help? **[txt modifié]** **FR** : Note: see S-57 MAINTENANCE DOCUMENT, clarification 8.Cl.1 : 8.Cl.1 Some ECDIS and QA software systems limit the number of characters that can be displayed in INFORM. There is no guidance on the maximum number of characters that can be encoded, and it is therefore resolved that an upper limit of 300 characters should be adopted. *(See also 8.Co.2)* **JEP** : The text should state what too long is; 300 characters, and reference S-57 MD 8, 8.Cl.1 **Chairman:** text modified to introduce 300 characters limit and to allow more latitude in the use of INFORM and TXTDSC. **SE :** the text should be as short as possible. Positions (Lat. Long.) should NOT be given asit is much better for the mariner to see the object (point or area) on the ECDIS in its true position		

8.
ER issued for temporary information should be managed and reviewed regularly to consider whether further information can be acquired and whether a new ER should be issued to modify or to cancel information previously promulgated.

(T) NMs for paper charts should indicate "Affected ENC [cell name] has been updated accordingly". Further verification is recommended to make sure that the encoded ER is consistent with the equivalent paper notice and applicable to the ENC.

8.	Do you agree text above? Comments: **FI** : Delete second paragraph. References to ERs should not be included in NMs. **ZA** : **[txt modified]** **NO** : Is this information (in blue) of any help for the mariner? **[txt modified]** **UK** : The UKHO agrees with this in principal. Currently, as stated before, our ENCs are reactive based on the decisions made for the paper chart. Therefore this not practical in the current set up **AU** : AU is not sure if the second paragraph should be in this document. This document is designed to provide guidelines for HOs to encode (T) and (P) NMs for ENC, not to recommend policy as to what to show in their paper chart NM publications. AU recommends that this issue be raised with CSPCWG in regards to the development of B-600. There is currently no recommendation for HOs to include a list of ENC cells affected for "permanent" NMs in their NM publications, and for consistency this issue should be discussed with regards to all NMs. If such a guideline is to exist in this document, it should reference back to B-600 **[txt modified]** **JP** : Delete "[cell name]", because indicating cell name in (T) NMs for paper charts does not promote user's convenience. **JEP** : The follow up service is very important. **DK :** Yes to the first part and No to the second part. **DE:** Second paragraph: No, First paragraph: Yes **SE :** YES, once a Hydrographic Office has declared its ENC T&P-service operational the HO must fulfil the service up to the declared level. This should imply to make all relevant information in "paper NM" available in ENC and to avoid showing outdated information. NO, in NMs for paper charts it is NOT needed to indicate whether ENC has been updated. Ships with a certified ECDIS system should in general not need to read NtM when navigating within a country which has declared its ENC T&P-service operational. However we need to agree on a **standard for indicating those NMs which, for some reason,**	No FI, NO, AU, JP, DK, DE, SE	Yes ZA, NO, UK, PT, NL, AU, FR, JEP, DK, DE, SE

	not can be included in ENCs of today. **Chairman:** no consensus on the first sentence of the second paragraph. Issue to be raised with CSPCWG. First sentence of Second paragraph removed.		

GUIDELINES FOR TYPICAL CASES

1. Individual new physical objects (e.g. wreck, buoy) with no associated explicit or implicit area associated (e.g. restricted area)

The relevant S-57 object is created.
Normally, a CTNARE isnot added.

Add examples from :
→ 1055(T)/08, 1001(T)/08, 1079(T)/08, 1083(T)/08 (CTNARE), 1697(T)/08, 1698(T)/08, 1719(T)/08, 2289(T)/08, 2291(T)/08,2292(T)/08

1.	Do you agree text above? Comments: **FI :** Is the reference to CTNARE really needed here? **UK** : May also include a CTNARE (Point) as described in 4 above. **AU :** As per AU comments for (4) above, there should be no reference at all for CTNARE in this case. Encoding the relevant S-57 object should be sufficient **[txt modified]** **SE :** We must pay attention to those vessels which are passing the affected area regularly. On ships with paper charts the change (e.g. new wreck, new buoy) is obvious on the chart as it has been inserted by hand (pencil). On a ship with ECDIS new information (permanent and temporary changes) will be included in the ENCs without being obvious to the officer on watch. For this reason we must consider using a CTNARE	No AU, SE	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

	is some situations (perhaps also to emphasize permanent changes for a couple of months after they have been inserted). **Chairman:** see comment for (4) above		

2. Individual new physical objects with an associated explicit area around it

The relevant area is created (e.g. RESARE). The new object is created. However, when the area is an "entry prohibited area" or a CTNARE the object may be omitted except for conspicuous objects (e.g buoy).

Add examples from :
→ 1707(T)/08, 1717(T)/08

2.	Do you agree text above? Comments: **FI :** Why the object is omitted? **UK** : In these instances the UKHO would always use the "Real World Object" to encode the ER. The use of CTNARE (Area) would be used if, for safety reasons, it was warranted **PT:** From our perspective, the ER should be always encoded with the real world objects in order to reflect to the mariner the entire "picture". **AU :** Not having a mariner background – could it be confusing to the mariner to see an area inserted with no indication as to why the area is required? **[txt modified]** **SE :** Known physical objects (buoys, wrecks etc.) must be shown in ENC, also within prohibited areas, as ENC may be used by those ships that are allowed to enter the prohibited area **Chairman:** the physical object may be omitted to simply the encoding.	No FI, PT, DE	Yes ZA, NO, UK, NL, AU, JP, FR, JEP, DK, SE

3. Individual new physical objects with a notification of caution (e.g. "Mariners are advised to navigate with caution…")

The new object is created. The advice is normally encoded in INFORM. Exceptionally, a CTNARE may be created to highlight the caution if necessary.

Add examples from:
→ 1090(T)/08

3.	Do you agree text above?	No	Yes

	Comments: **UK** : The UKHO tends to use TXTDSC in these cases. Although in this example the text string is short enough to consider using INFORM. **AU : [txt modified]** **Chairman:** text adjusted to introduced TXTDSC		FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

4. Obstructions (including wrecks) lying within a defined area

An OBSTRN area or WRECK area is created to cover the area.

Add examples from:
→ 2275 (T)/08

4.	Do you agree text above? Comments: **FI** : Doesn't WRECKS or OBSTRN area feature indicate the actual wreck or obstruction in true scale (except some certain categories like CATWRK3)? If we just have an area inside which a wreck is known to exist it seems a bit far going to encode the whole area as a WRECKS. **JEP** : What is a defined area? The term is quite vague, and could result in OBSTRN/WRECKS areas of several square kilometres in size. **Chairman:** text adjusted. Note that from responses received for 2275 (T)/08, most of the members choose to encode a wreck area for an area inside which a wreck is known to exist.	No FI, JEP	Yes ZA, NO, UK, PT, NL, AU, JP, FR, DK, DE, SE

5. New simple area object (military practice area, dredging area)
The relevant S-57 object is created.
Supplementary information is encoded in INFORM.
Normally, a CTNARE is not added.

Add examples from :

→ 1016(T)/08, 1017(T)/08, 1081(T)/08, 1699(T)/08, 2259(T)/08

5.	Do you agree text above? Comments: **FI** : Is the reference to CTNARE really needed here? **UK** : Assuming the object is clearly defined in terms of area **PT** : The need to create the CTNARE depends on several factors like the correct definition of areas and others. We should reflect the possibility of use of CTNARE **AU** : As per AU comments for (4) above, there should be no reference at all for CTNARE in this case, unless there is no other suitable S-57 object class to encode the area. Encoding the relevant S-57 object should be sufficient	No AU,	Yes FI, ZA, NO, UK, NL, AU, JP, FR, JEP, DK, DE, SE

6. Complex information within an area (e.g. works in progress)
An area object is created. It should be encoded with the relevant S-57 object or, if more suitable or by default, a CTNARE. Supplementary or contextual information is encoded in INFORM. When the available information is sufficiently detailed, navigationally significant objects (e.g. navigational aids, obstructions) are created or modified within the area. When the available information does not permit this, a CTNARE is preferred defining the area.

If information and time permit, less navigationally significant objects may be added or modified.

Add examples from :
→ 1056(T)/08, 1081(T)/08, 1082(T)/08, 1716(T)/08, 1726(T)/08,2292(T)/08.

6.	Do you agree text above? Comments: **AU** : Would consider adding an additional example as to why a CTNARE would be used rather than the appropriate S-57 objects i.e. works in progress where the changes taking place are so numerous, or involve such complex changes to the coastline and other topology, that it is not considered appropriate to encode the individual changes using the appropriate S-57 objects **[txt modified]** **JP** : Encoding CTNARE should be limited for the case of navigationally significant **Chairman :** text adjusted	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

7. Change of an existing object (e.g. navigational aid)

The attributes values are normally changed. However, when the information is less navigationally significant and when an defined area object can give the information (INFORM), then change of attribute values may be omitted.

Note: HO should make it easy to recover the characteristics before the temporary changes.
Add examples from:

→ 1004(T)/08, 1056(T)/08, 1726(T)/08 point n°4, 1696(T)/08, 2288(T)/08 point no.1, 2260(T)/08

7.	Do you agree text above? Comments: **FI** : Delete everything after the first sentence **UK :** Again, this is a case where the addition of a CTNARE (P) will be employed **AU** : Not sure what "less navigationally significant" has to do with this, so suggest it be removed. AU considers that the point of this case is to recommend that the attributes for the existing object be changed but, if changing the attributes would be confusing or possibly misleading to the mariner (e.g. changing/adding the sectors for the light in 1004(T)/08 without confirmation that they are in error), then CTNARE may be used. **[txt modified]** What is the point of the Note in this case? This applies to all (T) NM where the charted state will be restored at some point in the near future. Suggest that the Note be removed from this case and a general statement to this effect made in the General clause **JP** : Which case in really is supposed by the sentence "However…."? **Chairman:** text adjusted to introduce the use of CTNARE. The note is included in general rule number 8.	No FI, AU,	Yes ZA, NO, UK, PT, NL, FR, JEP, DK, DE, SE

7.a Buoy temporary moved

→ 2261(T)/08

	Several methods are proposed by members. Please, give your level of preference (1: the best, 6: the worse).	FI	ZA	NO	UK	PT	NL	AU	JP	FR	JEP	DK	DE	SE
7.a.1	Change of the position of the existing buoy + INFORM Comments: **FI** : Current practise **AU** : Cannot "change" the position of a feature (i.e. move) in an ER. The possible functions are Insert, Delete, Modify. An ER file cannot modify existing geometry Chairman: It seems that S-57 allows to move. Perhaps some production systems do not allow. **FR** : May be with CTNARE (P)	1	1	5	2	3	2		3	2	1	3	1	
7.a.	Change of the position of the existing buoy with DATSTA (date of			6		2	1		5		5		2	

2	ER production) and DATEND Comments: **FI** : This would leave the user with no buoy at all after DATEND **AU** : Cannot "change" the position of a feature (i.e. move) in an ER. The possible functions are Insert, Delete, Modify. An ER file cannot modify existing geometry														
7.a.3	New buoy with DATEND + existing buoy with DATSTA Comments: **NO** : Provided that we got exact dates for the moving of the buoy. **FR** : May be with CTNARE (P) on the position of the new object	2	3	1		5		1	2	1	4	1	3		
7.a.4	New buoy with DATEND + CTNARE with DATEND on the existing buoy Comments: **FI** : Unnecessary use of CTNARE **AU** :What would the CTNARE be populated with?	3		3		6		2	1		2				2
7.a.5	CTNARE with DATEND covering old and new position Comments: **FI** : Unnecessary use of CTNARE	4	2	4		6		4	4		3				
7.a.6	Other: **ZA** : RSA Comment: Until it is known that all ECDIS can handle DATSTA DATEND PERSTA and PEREND options 2,3 and 4 will be low on order of choice. **NO** : Provided that we do not have exact dates for the moving (It's probably the most common way in Norway), and that the two positions are close to each other **UK** : 1. Move: Light-buoy to new position + CTNARE (Point) 2. Encode: BOYLAT 3. Encode LIGHTS for 2 **PT** : BOYLAT (P) – move position of the buoy No 7 and insert the attributes: - DATSTA= date of production of ER - DATEND=20080531 BOYLAT (P) – new buoy - BOYSHP - COLOUR=3 (red) - DATSTA= date of production of ER DATEND=20080531 **AU** : Insert new buoy and delete existing buoy as close as possible to the date of the change (no DATEND and DATSTA). Delete new buoy and re-insert existing buoy as close as possible to			2	1	1		3				2		1	

	when the charted state is returned **DK:** In case of not knowing the exact date of DATEND we just Change the position of the existing buoy and give it STATUS=7														

Chairman: 7.a.1 and 7.a.3 are preferred options. Text written accordingly.

7.b Light temporary extinguished

→ 1726(T)/08 point no. 4, 2260(T)/08

	Several methods are proposed by members. Please, give your level preference (1: the best, 5: the worse).	FI	ZA	NO	UK	PT	NL	AU	JP	FR	JEP	DK	DE	SE
7.b.1	CTNARE on the LIGHT position Comments: **NO** : We don't want to give this suggestion a level of preference,	3	2		2	5		5	2	2	5			3

	because we at NHS wouldn't use this proposal														
7.b.2	CTNARE on the extent of the sector of the light Comments: **FI** : Overuse of CTNARE **NO** : We don't want to give this suggestion a level of preference, because we at NHS wouldn't use this proposal	4	3			2		4	4		4			4
7.b.3	Deletion of the LIGHT Comments: **FI** : Current practise for longer time periods and more significant cases **AU** : Light will need to be re-inserted when light is re-established.	1	4	5		5	2	3	5		2	2	1	2
7.b.4	LIGHT STATUS = extinguished, temporary Comments: **FI** : Current practise for shorter time periods and less significant cases **JP** : "temporary" should not attributed because "temporary" modifies "LIGHTS" but "extinguished".	2	1	1	1	1	1	1	1	1	3	1	2	1
7.b.5	Other: **AU** : DATEND on light for date light is extinguished. DATSTA on light for date light is re-established. Comment: Don't know if this will work (having DATSTA after DATEND), will require some testing. **JEP** : If start and end dates are known, use DATSTA and DATEND on the LIGHTS object							2			1			

Chairman: 7.b.4 is preferred options. Text written accordingly.

8. Depth information

8.1 Dated available depths

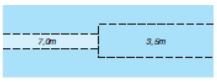
Real cases need clarification. It seems this information applies mainly to dredged areas. From the related part of the M4 (§B414 – see below), I think that we can consider two cases:

- *1. Information provides from a regular control survey and dredging and the maintained depth is changed. In this cases, it seems that DRGARE/DRVAL1 must be changed. M4 §B-414.1 and B-414.2 refer.*

- *2. Information reports depths shoaler than the stated maintained depth. So, we a have to define a guidance to translate M4 §414.5.*

B-414 DREDGED AREAS

Dredged channels and areas must be delimited by dashed lines and the dredged depth must be given in metres and decimetres (depending on the accuracy of the control survey), always followed by '*m*' or '*metres*'. Shallow water tints should be added in accordance with B-411.6. Decimal zeros may be omitted. Dredged turning (or manoeuvring) basins should be charted in the same way as other dredged areas, and may be labelled accordingly.



I21

The depth should normally be inserted within the area; however, for the exceptional use of tables, see B-414.4.

B-414.1 **Areas not regularly maintained**. Where it is not known that a dredged area is maintained by regular control surveys and dredging (or if it is definitely known that there is no regular maintenance), the legend on the largest scale chart must give both the depth and year of the latest control survey.

I22

B-414.2 **Areas regularly maintained**. Where it is known that a dredged area will be maintained by regular control surveys and dredging, the date must be omitted. Where space permits, insert '*Maintained depth...m*'.

I23

Where it is known that such areas are subject to siltation between dredgings, a cautionary note may be added.

B-414.3 **Limits of dredged areas** must be indicated by medium dashed lines. The ends should be left open where leading into deeper water.

I20

B-414.4 **Tables of dredged depths**. In general, the use of tables to list dredged depths should be avoided, except:

- in very complex cases, where areas are too small to show legends within the limits;
- in areas where very frequent changes occur, to facilitate maintenance by Notice to Mariners.

B-414.5 **Soundings within dredged areas.** Surveys or reports of depths within a dredged area which are shoaler than the stated depth may be received. If possible, advice should be obtained from the competent authority on whether they have been, or will shortly be, removed. If such assurance cannot be obtained, a cautionary note may be added which may be considered sufficient warning; if not, soundings shoaler than the stated depth may exceptionally be inserted within the dredged area, reported depths being inserted in accordance with B-424.5.

-

So guideline for this typical cases would be:

- Dated available depths in a dredged area

- When information provides from a regular control survey and dredging and the maintained depth is changed, the attribute value of DRVAL1 of the DRGARE object is changed.
- When it is reported that depths within a dredged area which are shoaler than the stated maintained depth, then a CTNARE is created on the concerned area with depths information encoded in INFORM or a SOUNDG is created with attributes values EXPSOU = "shoaler than the range of depth of the surrounding depth area" and QUASOU = "value reported".

→ 1084(T)/08, 1091(T)/08 no.1

8.1.	Do you agree text above? Comments: **PT** : The proposed procedure is according to M-4 for dredged areas **AU** : Agree with most of the text. Suggest that QUASOU not be populated for SOUNDG, as the values for reported (8 and 9) are qualified by "not surveyed" and "not confirmed", and a reported shoal depth in a dredged area will generally come from a survey, which makes the sounding both surveyed and confirmed. Chairman: agree There are issues regarding ECDIS display in both the encoding recommendations for shoal depths in a maintained depth area. If a CTNARE area is encoded covering the dredged area, this may result in the mariner thinking that they cannot enter a channel because of restricted under keel clearance. If a sounding is encoded, it can be turned off (sounding is not part of base display), therefore the mariner may not know that it is there. Perhaps a solution could be a CTNARE point if the position of the shoal depth is known, or an area only covering the area where the reported shoal depth(s) are. **[txt modified]** **JEP** : Bullet 2 should not be CTNARE or SOUNDG; it should be CTNARE and SOUNDG. CTNARE to give warning on entering the area, and SOUNDG to report the values. **Chairman:** text adjusted.	No AU, JEP	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, DK, DE, SE

8.2 Depths less than those charted within a defined area: see Part B

→ 1018(T)/08, 1091(T)/08 no.3

For all TTypical case.	Do you think that examples showing paper T NMs and equivalent ER encoding are absolutely needed? These examples will be artificial and simpler than real cases of EUWG letter 02/2009 but it'll be time consuming! Comments:	No FI, ZA, NO, UK, NL, AU, FR, DK, DE	Yes PT, JP, JEP, SE

	PT : The value of soundings shoaler then the surrounding depth areas, should have the attribute EXPSOU, otherwise should be encoded as OBSTRN if they are dangerous to navigation **AU** : It may be useful in some cases to include some text within the body of the text for the Typical cases to make it a bit clearer (but not full text from a NM publication and corresponding ER encoding). For instance, refer to case 6 above, where an example has been included in a manner of speaking – that CTNARE should be considered where the source information is not sufficient to encode individual features – and another example has been suggested in the AU comment. References to other IHO documents where possible, such as M-4 and UOC, would also be helpful **JEP** : Examples follow the phrase "a picture is worth a thousand words". Let's get this right the first time around, even if it takes some time **SE :** To show examples makes it easier to understand. The best would be to also use illustrations, e.g. to show suitable INFORM text, suitable size and shape of CTNARE etc. We should encourage the encoder (cartographer) to think as if he/she is an officer on watch. The encoder must be aware of that the officer on watch on an ECDIS ship is navigating "paperless" without NtM, without notes in pencil on the chart etc. We must make all "cartographic information" needed for safe navigation available on the ECDIS.		

Part B - Preliminary Notice to Mariners

GENERAL

1.

Preliminary NMs for paper chart are defined in M4/B-600, in particular in § B-634 (under revision by CSPCWG – see extract from the latest version at the appendix to this document – cf CSPCWG letter 03/2009). (P) NM promulgates navigationally significant data early to the mariner generally when a paper chart-updating or a paper chart NE can't be issued in due time.

For paper chart, the convention is for the mariner to insert the update on his paper chart in pencil, and erase it when the (P) NM is cancelled.
S-57 provides mechanisms which allow ENCs to be automatically updated (ER). This allows the affected ENC(s) to be continually updated in a timely manner for the duration of the notice and, without additional workload for the mariners.

HOs must promulgate Preliminary navigationally significant information by ER to provide the ECDIS users with an equivalent service to (P) NM for paper charts.

1.	Do you agree text above? Comments: **FI** : Since ENC updating mechanism is more flexible, it could be noted here that not all (P) NMs for charts require a (P) ER for ENC. Some of the (P) NMs may be done as permanent for ENC and some can be omitted totally. **UK** : This already UKHO policy **PT** : Regarding the last sentence and from our experience, we should be aware that: i) Most of (P) NM for paper charts that does not necessarily oblige an ENC update; ii) There are lots of ENC updates that does not come from an (P) NM; iii) There are some ER that contains more changes than those mentioned by the (P) NM for paper charts. May I suggest rewording the above paragraph? **NL** : Use of (P)Notices should be limited as much as possible for ENC use **AU** : While AU agrees with most of the text, there are a couple of issues that may require further discussion: - The use of the term "must" in the final paragraph. If EUWG is producing "guidelines", does it have the authority to recommend that the IHO mandate the application of (P) NMs? If not, how can this be done? Suggest the last sentence of the final paragraph above be amended as shown. The term "equivalent to" implies "same as", and as the first paragraph below states, the services are not the same. **[txt modified]** **JEP** : The importance of the time frame recommended in M4, B-634 should be included in the text, rather than having to be "discovered" when reviewing the reference.	No FI, PT, AU, JEP	Yes ZA, NO, UK, , NL, AU, JP, FR, DK, DE, SE

	Chairman: in fact that there are only "permanent" ERs while for paper charts there are (P) NMs, (T) NMs and Chart-updating (permanent) textual NM. Agree that ER are not "same as" (P) NM for paper chart. Wording adjusted. Through HSSC and IHO authority, EUWG will encourage HOs to produce ER. But this document is a guideline. So, agree that "must" should be avoided in this sentence. JEP comment: constraint of time is clearly evoked eg point 3. Note that ~~see point 3.~~t ~~T~~he time frame could be different for ER. From the responses received, it should the choice of each HO to align ER production on paper P MN or not.		
1.B600	Do you agree with M4/B-600 for the definition of Preliminary NMs for paper chart? Comments: **JP** : It may be true for NC/NE of paper chart in the case described in M-4 B634.1 paragraph 2, but NC/NE of ENC may not be needed in such case **Chairman:** agree	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

2.

ER encoding and P NM for paper chart are two different communication processes for promulgating information. For example, in some situations, paper chart needs chart-updating with a block or a new edition. As issuing and delivering a block or a new edition is time consuming, then a (P) NM should be issued for paper chart while S-57's mechanisms are more flexible and allow ENC updates in due time. In some other situations information received are not suitable to correctly update both ENC and paper chart.

As the process differs, it is recommended that ER encoding be handled from the source information because often P NM for paper chart doesn't provide enough detail to perform the relevant ER encoding.

2.	Do you agree text above? Comments: **UK** : It is accepted that it would be best practice to create "P" ERs from the source data/information. Currently our ENCs are sourced from paper charts. All the decision making in respect of chart content is carried out by the paper chart compilers. When a paper preliminary notice is issued this is flagged up and triggers the ER encoding process. However when the UKHO hydrographic database is fully operational it is our intention to source the paper chart from the ENC. When new source data is received it will be assessed for possible ENC/Chart action. In this instance the encoders will have access to the source data. **AU** : This is current AHO policy for all ENC updates (noting that we do not currently apply T and Ps, but if we did this is how they would be done). **[txt modifié]**	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

3.

Simple or more complex encoding methods are possible but HO should consider carefully which encoding method is appropriate when performing an ER with due consideration for time.

3.	Do you agree text above? Comments: **UK** : UKHO policy is to encode if possible. Use of CTNARE is used if there are time constraints. If the preliminary notice is complex and possibly for an extended period then careful consideration is given to the best and safest options available. New routing measures are an instance of complex preliminary notices. These are by their very nature complex and may not come into force for several months. **AU** : **[txt modified]**	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

4.

Often, information received is too complex or extensive or imprecise to be encoded with relevant objects. In these instances the use of the CTNARE object is preferred. The INFORM attribute value of this object gives a précis of the overall changes, together with detailed navigationally significant information. When the text is too long to be encoded with INFORM, the attribute TXTDSC must be used.

It is noted that mariner, if concerned, has the facility to use "Mariner Objects" to annotate the ENC on ECDIS from information given in a textual form.

ER encoded with relevant objects or NE of the ENC will be issued later, when this encoding will have been established. The period of time depends on:

the time needed by HO to make the encoding with relevant objects,

the time needed to obtain confirmation of details,

the date at which the real world situation is stabilized.

It is possible that all these conditions can be satisfied and directly encode all the relevant objects to update the ENC with an ER while a block or a NE will be issued later for the paper chart.

4.	Do you agree text above? Comments:	No JP, JEP,	Yes FI, ZA, NO, UK, PT,

	UK : The ER encoding would be directly guided by the decisions made in the chart branches. The paper "P" notice would be modified to fit the ENC and encoded in a TXTDSC file. A CTNARE would be encoded if there were time constrains with precise encoding to follow. This may then be issued as an ER or NE. **JP** : Paragraph 2 is meaningless. ER is issued to avoid using "Mariner Object". **SE :** Most of the text is agreed. However the mariner should not need to make Mariner Object from the information supplied by an official Hydrographic Office. One of the benefits with ECDIS is to get rid of the time consuming update work aboard. We (HO) must try to make the preliminary information understandable to the mariner by means of updates to the ENC. How can the mariner do this better than we? **Chairman** : constraint of time...Mariner has access to the information in CTNARE/INFORM (or TXTDSC). The main objective is to make information available. If he needs to report one particular element on the chart, he can do it. **JEP** : For the first paragraph see comments for Part 1, question 7, otherwise ok **AU** : **[txt modified]** **Chairman:** text adjusted	SE	NL, AU, FR, DK, DE, SE

5.

Information received may contain some navigationally significant elements that is simple to encode with the relevant objects in a timely manner. In these instances these elements may be encoded with relevant objects provided that they reflect the actual situation when the ER is made available to the user. However, if the changes are subject to continual change these objects should be amended as a consequence, this may represent supplementary work for the HO (see Part A). The ER should also warn users that the situation is subject to change.

5.	Do you agree text above? Comments: **UK** : This is very subjective and subject to continual review. Primarily guided by the paper product at the moment. **PT** : In principle, IHPT agrees with the proposed text **AU** : In the second last sentence, which section of Part A? **[txt modified]** **Chairman:** all the part A because here the information is temporary. Text adjusted.	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

6.

Use of DATSTA – DATEND: see part A

UK : TSS/Routing Measures where there is a finite implementation date. Redundant data is removed after expiry as are all references to the initial (P)NM.

7.

Use of INFORM: see part A

UK : The UKHO tends to use TXTDSC files rather than INFORM. INFORM is used as a "Qualifier" to attributes and is restricted to short and unformatted text strings.

8.

Additional Diagrams are sometimes very useful to the mariners (e.g. complex routeing measures). A picture file may be associated using the PICREP attributes. As CTNARE object does not allow PICREP attribution, the picture file may be referenced by a M_NPUB object using the attribute PICREP and sharing the same geometry as the CTNARE.

8.	Do you agree text above? Note that this method (M_NPUB) is already recommended in encoding bulletin no. 25 (see below, guidance for typical cases) Comments: **UK** : Already UK policy. Especially in support of temporally attributed objects where it can not be established with any certainty that all ECDIS/ECS will perform as required **PT** : EB no. 25 also states that "A picture file may be referenced by a M_NPUB object sharing the same geometry as the CTNARE using the attribute PICREP if it is considered useful". **AU** : **[txt modified]**	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

9.

ER issued for Preliminary information should be managed and reviewed regularly to consider whether further information can be acquired and whether a new ER should be issued to modify or to cancel information previously promulgated

(P) NMs for paper charts should indicate "Affected ENC [cell name] has been updated accordingly". Further verification is recommended to make sure that the encoded ER is consistent with the equivalent paper notice and applicable to the ENC.

9.	Do you agree text above? Comments: **FI** : Delete second paragraph. References to ERs should not be included in NMs **ZA** : The ENC may only be actioned once the NM has been published and to say in the NM that the affected ENC has been updated accordingly before the actual ER has been produced (given the time line for producing the ER) and published may give the mariner the wrong picture about the state of his current ENC. I suggest that the actual ER number be quoted in the paper chart Notice, worded for example "ENC ZA4002 Update 023 contains the changes promulgated in this Notice" or "ENC ZA4002 Update 023 will contain	No FI, ZA, NO, AU, JP, DK, DE, SE	Yes NO, UK, PT, NL, AU, FR, JEP, DK, DE, SE

	the changes promulgated in this Notice". **NO** : Is this information (in blue) of any help for the mariner?**[txt modified]** **UK** : This would be an aspiration and may become a reality when the paper chart is produced from an ENC/S-57 database. **AU** : AU is not sure if the second paragraph should be in this document. This document is designed to provide guidelines for HOs to encode (T) and (P) NMs for ENC, not to recommend policy as to what to show in their paper chart NM publications. AU recommends that this issue be raised with CSPCWG in regards to the development of B-600. There is currently no recommendation for HOs to include a list of ENC cells affected for "permanent" NMs in their NM publications, and for consistency this issue should be discussed with regards to all NMs. If such a guideline is to exist in this document, it should reference back to B-600. **[txt modified]** **JP** : 1) Delete "[cell name]", because indicating cell name in (P) NMs for paper charts does not promote user's convenience. 2) Paragraph 2 is inconsistent with the description in Part B General 2. Part B General 2 says "In some other situations information received are not suitable to correctly update both ENC and paper chart.", but here says "Further verification is recommended to make sure that the encoded ER is consistent with the equivalent paper notice and applicable to the ENC." **DE:** Second paragraph: No, First paragraph: Yes **SE :** YES, once a Hydrographic Office has declared its ENC T&P-service operational the HO must fulfil the service up to the declared level. This should imply to make all relevant information in "paper NM" available in ENC and to avoid showing outdated information. NO, in NMs for paper charts it is NOT needed to indicate whether ENC has been updated. Ships with a certified ECDIS system should in general not need to read NtM when navigating within a country which has declared its ENC T&P-service operational. However we need to agree on a **standard for indicating those NMs which, for some reason, not can be included in ENCs of today**. **Chairman:** no consensus on the first sentence of the second paragraph. Issue to be raised with CSPCWG. First sentence of Second paragraph removed.		

GUIDELINES FOR TYPICAL CASES

1. **Traffic separation schemes**

Encoding bulletin E25 – april 2009 and following versions should be applied.

EB25 - UOC Clause 10.2.1 Traffic separation schemes

Clause 10.2.1 of Edition 2.1 (April 2002) of the Use of the Object Catalogue for ENC (S-57 Appendix B.1, Annex A) provides guidance for the encoding of traffic separation schemes (TSS) and each component within a TSS. It is important that mariners be provided with advance notification of changes to TSS, which may include modification to an existing TSS, addition of a new TSS or removal of a TSS. UOC Clause 2.6.1 provides guidance on issuing ENC updates in advance, including the use of the attributes DATEND and DATSTA for objects within an ER data set to indicate when changes to a routeing measure come into force.

Encoders are advised that, in order to provide a consistent approach to mariners regarding advance notification of changes to a traffic separation scheme, the following procedure should be adopted:

1) At least one month before the changes to the TSS come into force, issue an updated data set (as an update or a new edition) which:

- **Adds new or amended TSS component objects (except some navigation aids – see Note below). These objects must have DATSTA populated with the date that the changes to the TSS come into force.**

- **Adds DATEND (populated with the date of the day before the changes to the TSS come into force) to any component objects of the existing TSS that are to be changed or deleted (except some navigation aids – see Note below).**

- **Creates a CTNARE area object covering the geographic extent of both the current and the future TSS. The attribute INFORM or TXTDSC must be used to explain the change to the TSS, e.g. "The traffic separation scheme off Cape Bon is to be modified at 0000 UTC on 1 July 2009. This ENC includes all the information before and after the change, indicated by the attributes DATEND (before the change) and DATSTA (after the change) on the components of the scheme". The attribute DATEND for the CTNARE should be populated with the date at which the change comes into force or, if encoders wish to provide extended information to the mariner that a change has been made, with a date up to a month after the change comes into force. If the current and the future TSS are not in the same geographic area, it may be required to encode two distinct CNTARE area objects. A picture file may be referenced by a M_NPUB object sharing the same geometry as the CTNARE using the attribute PICREP if it is considered useful, e.g. the equivalent paper chart representation of the amended or new TSS.**

Note: The attributes DATEND and DATSTA are not allowed for navigation aid equipment objects RETRFL and TOPMAR. For any changes to TSS that effect these objects, a separate updated data set (as an update) including changes to those navigation aids which contain any of these equipment objects should be issued as

close as possible to the date that the modified/new/deleted TSS comes into force. See also ENC Encoding Bulletin Number 24.

2) As soon as possible after the modified/new/deleted TSS comes into force, issue an updated data set (as an update or new edition) which:

- **Deletes the changed or redundant component objects of the former TSS.**
- **Removes the attribute DATSTA from the component objects of the new TSS.**

3) The CTNARE (and M_NPUB if encoded) must also be removed by update, either as part of the update to remove the redundant component objects of the former TSS, or as a separate update at a later date, corresponding to the date populated in the attribute DATEND for the CTNARE.

Encoders who are members of RENCs should also provide advance notification of changes to TSS to their RENC in accordance with RENC procedures, in order for the RENC to provide additional notification to mariners of impending TSS changes.

[April 2009]

→ 1002(P)/08

1.	Do you agree the encoding bulletin n°25? Comments : **UK** : Make data producers aware of the limitations of some ECDIS/ECS. It is then up to them whether they employ double encoding methods. **NL :** It must be kept in mind that some older ECDIS/ECS cannot handle some of these attributes **AU** : **[txt modified]** **Chairman:** note about the use of DATSTA and DATEND added.	No	Yes FI, ZA, NO, UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

2. Complex information within a changing area (e.g. works in progress)
A CTNARE object is created to cover the area. Information is encoded in INFORM. When the available information is sufficiently detailed, navigationally significant and more useful additional relevant objects (e.g. navigational aids, fairways, regulated area) are created or modified within the area if time permits. If relevant, an RESARE – "entry prohibited area" object can be used instead a CTNARE object.

Add examples from (examples should be simpler than these real cases):
→ 1003(P)/08, 1024(P)/08, 1037(P)/08, 1718(P)/08, 1714(P)/08, 1731(P)/08, 1744(P)/08, 1750(P)/08, 1727(P)/08, 1728(P)/08, 2314(P)/08, 2308(P)/08, 2274(P)/08, 2290(P)/08, 2276(P):/08, 2287(P)/08.

2.	Do you agree text above?	No	Yes FI, ZA, NO,

	Comments : **AU** : There are other coding options. Clause 4.6.10 of the UOC is encoding guidance for works in progress or projected. In this clause, it recommends the use of CONDTN and SORDAT to indicate the type and date of the works. CTNARE does not allow CONDTN. If there are harbour works in progress, such as the establishment of a marina or other harbour facility, it should be possible to encode a HRBFAC object to cover the area, with additional relevant objects such as navaids etc inside, and attributed accordingly for CONDTN and SORDAT **[txt modifié]** **JEP :** As some of the works in progress P NMs come with diagrams, it might be prudent to include the same option as given in EB 25 here, and state that a M_NPUB + PICREP can be used	AU,	UK, PT, NL, AU, JP, FR, JEP, DK, DE, SE

3. Simple information which does not need an additional notification of caution

The relevant object is created and the contextual information is encoded in INFORM. A CTNARE object is not added. This could apply for example to submarine cables or pipelines being laid (CBLSUB, PIPSOL) or area under reclamation (LNDARE with CONDTN = under reclamation). When necessary the encoding reflects that positions are approximate.

Add examples from (examples should be more simple than these real cases):
→ 1709(P)/08

3.	Do you agree text above? Comments : **PT** : In this particular case, preliminary update should be applied to paper charts, but to ENCs doesn't make any sense. This should be performed as a regular ER **AU :** INFORM should only be required if there is contextual information that cannot be encoded using any of the allowable attributes for the feature. **[txt modified]**	No PT, AU,	Yes FI, ZA, NO, UK, NL, AU, JP, FR, JEP, DK, DE, SE

4. Depth information

4.1 Depths less than those charted within a defined area

If depths values or exact positions are unknown, a CTNARE object is created.

If depths values and exact positions are known, a SOUNDG object (or several) may be created or modified with depth contours and depths areas amended as necessary. Sources of information are encoded. However, HO should carefully consider the time needed to update ENC depth information. The encoding using SOUNDG objects could be inappropriate to promulgate the navigationally significant information in due time. So, a CNTARE object with depths information encoded in INFORM should preferred.

When a SOUNDG is created and known depths values are only most significant, a CTNARE is added.

Add examples from :
→ 1018(T)/08, 1091(T)/08 no.3, 1700(P)/08, 1701(P)/08, 1714(P)/08, 1735(P)/08, 1744(P)/08, 1750(P)/08, 1727(P)/08, 1728(P)/08, 1769(P)/08, 1769(P)/08, 2309(P)/08, 2276(P)/08.

4.1	Do you agree text above? Comments : **NO** : We are a little uncertain of the meaning of the sentences in blue above. We think the sentence must be rewritten. Else, we agree. **[txt modified]** **UK** : When 'only most significant…' is included in NM text we do not show SOUNDG(s) **PT** : Another examples where preliminary update should be applied to paper charts, but to ENCs doesn't make any sense. This should be performed as a regular ER **Chairman:** text adjusted to focus on cases where depths values or exact positions are unknown, or depths values are only most significant **AU** : If I understand the last paragraph correctly, it is saying that if only the most significant depths are amended, a CTNARE must also be added. AU does not agree with this. If the source information only provides amended depth information for some (which may or may not be the most significant) of the depths in the area, there should only be a CTNARE added. Amending only certain depths by ER will give an overall misleading indication of the bottom topology to the mariner, and this should not occur. Depths within the area should remain relative to one another until full source information is available and complete revision of the area can take place. **[txt modified]** **JEP** : We do not understand why there would be a difference in the preparation work needed for preparing the depth information in a CTNARE versus one or more SOUNDG objects within a DRGARE. Like for Part A, question 8.1, we think this should be a CTNARE for the area at large + SOUNDG for the significant shoalings. However, we do recognize that this recommendation is somewhat conflicting with our agreement of Question 2, in General Guidelines in Part A. **Chairman:** it seems there is a consensus to say that if only the most significant depths are amended, a CTNARE must be used. But, from responses to EUWG 03/09, no consensus on the use or not of SOUNDG in addition to the CTNARE. Indeed, this case is quit similar to Part A, typical case 8.1. Text adjusted.	No NO, PT, AU, JEP, DK	Yes FI, ZA, UK, NL, AU, JP, FR, DE, SE

4.2 Dated available depths: see Part A

For all PTypical case.	Do you think that examples showing paper T NMs and equivalent ER encoding are absolutely needed? These examples will be artificial and simpler than real cases of EUWG letter 02/2009 but it'll be time consuming! Comments: **PT** : This question is the same as the other in Part A Temporary Notice to Mariners, question 8.2. But if the intention was to replace T by P, and the question is "Do you think that examples showing paper **P** NMs and equivalent ER encoding are absolutely needed?", our answer is NO. As stated before in EUWG02_09, each case is a case, and they must be analyzed in a case by case basis. Most of the P NMs should be applied to paper charts, but to ENCs doesn't make any sense. The change or deletion or insertion of objects can be done by permanent or preliminary updates, except the special situation of routeing measures. **AU** : It may be useful in some cases to include some text within the body of the text for the Typical cases to make it a bit clearer (but not full text from a NM publication and corresponding ER encoding). For instance, refer to case 6 above, where an example has been included in a manner of speaking – that CTNARE should be considered where the source information is not sufficient to encode individual features – and another example has been suggested in the AU comment. References to other IHO documents where possible, such as M-4 and UOC, would also be helpful **JEP** : Same comments as for T NMs	No FI, ZA, NO, UK, PT, NL, AU, FR, DK, DE	Yes JP, JEP, SE

General comment and suggestions on the draft of guidelines and other:

PT : From our perspective and little experience, we cannot see the need to produce preliminary updates. All the preliminary examples of NMs presented in EUWG02_09 can originate normal ER files, as well as, the cancelation of former notice it seems unnecessary, because we just need to produce a new update changing old information.
Chairman: in fact, the need is to provide, by normal ER files, information in advance to that the real world will be or in advance to that the ENC will be when the HO will have complete the full amendments by other ER or EN (time constraint).

AU : - I have attempted to re-word some of the text to make the English wording a bit clearer (blue text in the body of the document). This is not designed to change the original meaning that you have intended the wording to convey. If I have inadvertently changed the meaning, it is because I have misinterpreted that meaning of the wording, and you should consider amending to convey your original meaning. Where AU disagrees with the intention of the wording in the document, I have included this in the Comments at the end of the section. I have by no means fully reviewed the document in terms of English wording – I thought it more important to concentrate on the questions you have asked.
- It may be useful to include references to relevant clauses in other S-57 documentation such as the UOC. For instance, in Typical case 6 for (T) NM, a reference to UOC clause 4.6.10 may be included for guidance on how to encode works in progress or projected using the attribute CONDTN (I have added this into the text for typical case 6 as an example).

Chairman: many thanks for your help to make English wording clearer. I agree that some references to USOC could be useful. But it would be a huge work to analyse USOC to refer guidelines text. The first objective of EUWG is to promote and to help ER production corresponding to T and P NMs as soon as possible. I feel that is preferable to issue soon some reasonable guidelines rather than some perfect guidelines later.

Name..…… ……

Member State or Organization……. ……..

Appendix to the guidelines

Extract from the latest version of M4/B-600 – cf CSPCWG letter 03/2009 (available on IHO web site)

See also B-611.11, B-620.2, B-620.4, B621; B-630.3, B-631.8, B-635.1

B-601.8 **Radio Navigational Warning.** Radio Navigational Warnings (RNW) are used to promulgate the most urgent information. They are not intended for updating charts directly. Unless it is of very temporary application, the information will normally require a subsequent (T) NM or chart-updating NM, as appropriate, (Technical Resolution F4.4). A recapitulative list of RNW in force may be included in the periodical NM booklet or maintained on a website, see B-630.3.

For further details of systems for broadcasting RNW, see IHO Publication S53.

B-633 TEMPORARY NM

B-633.1 A Temporary (T) NM is used to promulgate navigationally significant information that will remain valid only for a limited period, eg:

- temporary oceanographic buoys;
- temporary changes in aids to navigation;,
- temporary changes to authorized draughts;
- hazards of a temporary nature such as naval operations, exploratory drilling or salvage operations;
- withdrawal or re-instatement of buoys at the close or beginning of the navigation season).

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

B-633.2 The NM number for a (T) NM should be followed by '(T)', before the year date. The specifications at B-631.3 (Title), 6 (Authority) & 7 (Charts affected) also apply to (T) NM.

B-633.3 A (T) NM must not be initiated if the information will no longer be valid by the time the NM is likely to be received by the mariner; this will depend upon the distribution time span for NMs. Shorter time periods may be covered by Radio Navigational Warnings (see B-601.8). The maximum duration for a (T) NM to be in force should usually be no more than 12 months; if likely to be longer, a chart-updating NM should be issued. If possible, the (T) NM should include an indication of how long it is to remain in force.

B-633.4 (T) NMs in force should be reviewed regularly to consider whether further information can be acquired and whether they should be cancelled, updated or reissued, or replaced by permanent chart-updating NM. It is very important to ensure that mariners (and other hydrographic offices who chart the area) are aware when (T) NMs are cancelled. If a (T) NM is replaced by a chart-updating NM, that NM should state that the (T) NM is cancelled.

B-633.5 The publishing hydrographic office must issue regular lists of (T) NM which are still in force.

- Offices which publish a weekly edition of NM should issue such a list each month.
- Offices which publish a fortnightly edition of NM should issue such a list four times a year or more frequently, if desired.
- Offices which publish a monthly edition of NM must issue such a list at the beginning of every year or more frequently, if desired.

(Technical Resolution F3.7(1))

B-633.6 A (T) NM should not be used if there is little likelihood of notification when the charted state is restored, as without such notification the (T) NM cannot be cancelled at the correct time. If possible, an alternative method of promulgation should be used, such as a general chart note, eg '

Aids to Navigation

The aids to navigation on this chart are reported to be unreliable….

B-634 PRELIMINARY NM

B-634.1 A Preliminary (P) NM is issued to promulgate navigationally significant data early to the mariner when:

- Action/work will shortly be taking place (eg harbour developments; installation of, or alterations to, important navigational aids). If possible, at least 8 weeks notice should be given, with the date of entry into force indicated (Technical resolution F3.5)
- Information has been received, but is too complex or extensive to be promulgated by chart-updating NM. A précis of the overall changes, together with detailed navigationally significant information, should be provided in the (P) NM, with a statement that full details will be included in a New Chart or New Edition to be published shortly (a date or timescale for the NC/NE should be given, if possible).
- Further confirmation of details is needed. A chart-updating NM should be promulgated, or NE issued, when the details have been confirmed. Where extended drying areas affect territorial or fishing limits, (P) NM action may be required until they have been confirmed by an appropriate legal authority.
- For ongoing and changeable situations such as a bridge construction across a major waterway. The (P)NM can be revised and reissued for updates (including diagrams if useful) as work progresses. A chart-updating NM should be promulgated, or NE issued, when the work is complete.

The convention is for the mariner to insert the update on his paper chart in pencil, and erase it when the (P) NM is cancelled.

B-634.2 The NM number for a (P) NM should be followed by '(P)', before the year date. The specifications at B-631.3 (Title), 6 (Authority) & 7 (Charts affected) also apply to (P) NM.

B-634.3 A (P) NM should give an indication of when the information will be included on the appropriate chart. If this is known it should be stated, eg:

- 'These changes will be included in a New Edition of Chart 1234 to be published in March 2010'.

Or, if the date for inclusion in the chart is unknown:

- 'These changes will be included in the next New Edition of Chart 1234'.

Where a particular date is specified, the (P) NM should be monitored and if it appears that the publication date mentioned is going to be missed, then consideration should be given to reissuing the (P) NM with a revised date.

Instead of issuing a (P) NM, consideration should be given to issuing a chart-updating NM inserting a 'Works in progress' legend on the face of the chart, e.g. 'Bridge under construction (2009)'.

B-634.4 **In addition to a (P) NM**, it may also be appropriate, where there are major changes, to issue a permanent NM inserting a legend, in magenta, on the face of the chart, referring to the (P) NM, eg:

- *See NM1234(P)/09;*
- *Shoal Depths (see NM2345(P)/09).*

B-634.5 **Diagrams.** Diagrams to support (P) NMs are very useful to the mariner, eg:

- where a new, amended or complex series of routeing measures is being announced;
- a new bridge is being constructed and shipping routes need to be diverted.

They should be a different scale from the chart, to prevent the mariner from using them as blocks to directly amend the chart. If a diagram is at the same scale as the chart, it must contain a 'Not to be pasted on the chart', or equivalent legend.

It may be best to produce such diagrams in monochrome, using black stipple in lieu of tints if necessary, because:

- digital file sizes may be an issue for receipt by some users;
- the recipient may not be able to reproduce colours.

B-634.6 (P) NM in force should be reviewed regularly to consider whether they should be cancelled, updated or reissued, or replaced by permanent chart-updating NM. It is very important to ensure that mariners (and other hydrographic offices who chart the area) are aware when (P) NMs are cancelled. If a (P) NM is replaced by a chart-updating NM, that NM should state that the (P) NM is cancelled. If a (P) NM is cancelled on publication of a NC or NE, the announcement of the NC or NE should state that the (P) NM is cancelled (or that the chart should be removed from the list of charts affected by the (P) NM if it remains in force for other charts).

B-634.7 The publishing hydrographic office must issue regular lists of (P) NM which are still in force.

- Offices which publish a weekly edition of NM should issue such a list each month.
- Offices which publish a fortnightly edition of NM should issue such a list four times a year or more frequently, if desired.
- Offices which publish a monthly edition of NM must issue such a list at the beginning of every year or more frequently, if desired.

(Technical Resolution F3.7(1))

DRAFT GUIDELINES for ENCODING TEMPORARY and PRELIMINARY ENC UPDATES

INTRODUCTION

At its 20th meeting held in Brazil in November 2008, the Committee on Hydrographic Requirements for Information Systems (CHRIS) drew attention to inconsistencies in the promulgation and distribution of Temporary and Preliminary (T&P) Notices to Mariners (NMs) intended for use in ECDIS. It was identified that:

- about half of all ENC Producer States promulgate the equivalent of T and/or P notices via ENC updates, whereas the other half invite mariners to refer to Notices to Mariners booklets or websites;
- not all T&P notices intended for ENCs are in English;
- translation of T and P notices intended for paper charts into ENC updates is sometimes difficult and may introduce an additional time delay for the distribution of safety significant information;
- it is very difficult for the ENC users to comprehend the T and P notices network and get rapid and seamless information from one region to the other.

The Committee agreed that the situation has implications for safety of navigation and consistency of ENC services and therefore requires urgent study and resolution. As a result, the Committee decided to form a temporary Working Group (ENC Updating Working Group) tasked with developing contemporary guidance on standardised processes for the delivery and implementation of updates to ENCs. More specifically the EUWG was asked to develop and propose a pragmatic approach to overcome any current shortcomings in the updating mechanisms for T&P notices in ENCs.

The present document is the result of the work of the EUWG. It has been developed through an iterative process of correspondence with all the members. It provides high level guidance for promulgate the equivalent of T and/or P notices via ENC updates (ER). Through a set of recommendations, it gives keys to perform appropriate ENC updates. The guidance is in accordance with the current standards. It allows for some latitude in its application and is dependant on the assessment of each particular case. It is also down to the judgement of each producer.

PART A - Temporary Notice to Mariners

GENERAL

1. Temporary Notices to Mariners, (T) NMs, for paper chart are defined in S4, Section B-600, in particular in § B-601.8 and B-633 (under revision by CSPCWG). 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[1]). This allows the affected ENC(s) to be continually updated in a timely manner for the duration of the notice without additional workload for the mariners.

   HOs should promulgate temporary navigationally significant information by ENC update to provide the ECDIS user with an updated SENC. This service also offered 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 mariners. Since these processes are different, it is recommended that ENC Updates be derived from the source information rather than the paper chart (T) NM as often the (T) NM for paper chart does not provide enough detail to perform the relevant ENC Update.

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

   - An ENC update should 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 a producer nations ENC Updating regime. Shorter time periods may be covered by Radio Navigational Warnings (RNW). If possible, the ENC Update should include an indication of how long the temporary change will remain in force.

   - An ENC update should not be issued if it is unlikely that the hydrographic office will be notified when the temporary nature of the change will revert its original charted state. Without this notification the information issued by the ENC update cannot be cancelled at the appropriate time. If possible, an alternative method should be used, such as a general note or by issuing a permanent ENC update explaining, for example, that the aids to navigation within an area are reported to be unreliable.

   This implies that HO 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, primitive area) for temporary information should be avoided. The CTNARE object is used when it is relevant for the object 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 charted, due to time constraints, and/or does not imply caution.

5. To correctly encode an ENC update the source information is useful in determining which elements of the update are reliable, which are permanent and which are temporary. The STATUS attribute

Commentaire [YLF1]: Will be updated

[1] The ER application profile only applies to ENC update cell files. S-57 Appendix B of the ENC Product Specifications refers

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 DATSTA - 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 theses dates are encoded for navigational aids, DATSTA and DATEND must be populated on each component of the aid (for FOGSIG, RETRFL and TOPMAR, *refer to S-57 Edition 3.1 Supplement No. 2 - June 2009*).

   The ENC update should be issued as close as possible to the earliest date (DATSTA), except if it is appropriate to give the information well in advance. An object no longer present should be removed by issuing a further update as soon as possible after the expiry date (DATEND).

   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. For new or amended routeing measures, see encoding bulletin number 25.

   Note that some older legacy systems may not have the functionality to manage temporal information correctly or have implemented it improperly. Some ENC producers may wish to include additional encoding to safeguard against this. For example, use a CTNARE describing the changes and timings.

7. The INFORM attribute should be used to give supplementary or contextual information when encoding temporary (or preliminary) information. When the text is too long to be encoded with INFORM (the INFORM/NINFOM text should not be over 300 characters - *see S-57 MAINTENANCE DOCUMENT, clarification 8.Cl.1*), the attribute TXTDSC is used. In these cases the INFORM attribute could be used to highlight the existence of the TXTDSC file. Encoders using INFORM/TXTDSC to provide positional information must express the coordinate values in WGS 84 and in accordance with S4 §B-131. If it is deemed necessary a picture file (PICREP) can be attributed. If the relevant object class (e.g. CTNARE) does not have PICREP as an allowable attribute then this can be attributed against a M_NPUB object which shares the same geometry as the relevant 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.

   Further verification is recommended to make sure that the encoded ENC update is consistent with the corresponding paper notice. HO should make it easy to recover the original chart conditions before the temporary changes came into effect.

GUIDELINES FOR TYPICAL CASES

a. Individual new physical objects (e.g. wreck, buoy) with no associated explicit or implicit area associated (e.g. restricted area)

Encode the relevant S-57 object.
In this instance a CTNARE would not normally be used.

b. Individual new physical objects with an associated explicit area around it

Encode the relevant S-57 area object (e.g. RESARE). The relevant object is created for the new physical object. However, when the area is an "entry prohibited area" or a CTNARE the new physical object may be omitted to simplify encoding except if conspicuous, e.g. navigationally significant.

c. Individual new physical object with a notification of caution, e.g. "Mariners are advised to navigate with caution…"

Encode the relevant S-57 object. Additional clarification and advice can, if required, be provided in INFORM or TXTDSC. Exceptionally, a CTNARE may be created to highlight the caution if considered necessary.

d. Obstructions (including wrecks) reported to exist within an area

Encode an OBSTRN area or WRECKS area.

e. New simple area object (military practice area, dredged area)

Encode the relevant S-57 area object
Supplementary information is provided in INFORM or TXTDSC.
Normally, a CTNARE is not added.

f. Complex information within an area (e.g. works in progress where the changes are numerous or involve complex changes to the topology)

Encode the area object. It should be encoded with the relevant S-57 object or, if more suitable or by default, a CTNARE. Supplementary or contextual information is provided in INFORM or TXTDSC. When the available information is sufficiently detailed, navigationally significant objects (e.g. navigational aids, obstructions) are created or modified within the area. When the available information does not permit this, a CTNARE defining the area is preferred.

If the information exists and time permits, less navigationally significant objects may be added or modified.

g. Changes to an existing object (e.g. navigational aid)

In these instances it is usually only necessary to change the attributes values. A CNTARE may be used to warn the mariners if it is considered necessary.

h. Buoy temporarily moved

When a buoy is temporarily moved, then it, and any associated objects, is moved to the new position then the STATUS attribute value 7 (temporary) is used. Alternative encodings are possible, for example, if the move is for a fixed period of time. In these cases the object, and any associated components, can be created in the temporary position with DATEND attributed to it and populated with the date corresponding to the end of the fixed period of time. The currently

charted object, and any associated components, can be attributed with DATSTA populated also with the date corresponding to the end of the fixed period of time. A Cautionary Area may, if considered necessary, be added. Data producers may wish to consider the note in section 6 under the "General" heading.

i. Light temporarily extinguished

The STATUS attribute of a LIGHTS object is encoded with the values 11 (extinguished) and 7 (temporary).

j. Change to a maintained depth in a dredged area

When information is received from an official or recognised survey authority relating to a dredged area where the maintained depth has changed, the attribute value of DRVAL1 for the DRGARE object should be changed to the value provided by the survey.

When a depth within a dredged area is reported shoaler than the stated maintained depth, then a CTNARE is created covering the area concerned. The depth information can be provided in the CTNARE attribute INFORM or by adding a SOUNDG object with the appropriate attributes VALSOU and EXPSOU. VALSOU should be attributed with the sounding value and EXPSOU set to 2 (shoaler than the range of depth of the surrounding depth area).

Part B - Preliminary Notice to Mariners

GENERAL

1. Preliminary Notices to Mariners, (P) NMs, for paper chart are defined in S4, Section B-600, in particular in § B-634 (under revision by CSPCWG). A (P) NM promulgates navigationally significant information early to the mariner generally when a paper chart-updating or a paper chart new edition can not be issued in due time.

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

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

   HOs should promulgate Preliminary navigationally significant information by ENC update to provide the ECDIS user with an updated SENC. This method of delivery corresponds to the service that (P) NMs offer to the paper charts user.

2. ER encoding for ENC and (P) NM for paper chart are two completely different communication processes for promulgating information to the mariner. For example, there are instances when the paper chart needs updating using a NM block correction or by issuing a new edition. This is normally due to the receipt of extensive new information, e.g. new survey. The lead time for an NM block correction or a new edition can be lengthy, sometimes several months. In these cases a (P) NM may be issued as an interim measure. The ENC updating mechanisms are more flexible and may allow for ENC updates to be issued in quicker time.

   There may be other instances, when new information is received, where it is not be possible to correctly update both the ENC and paper chart. In these cases it is still necessary to provide notification of navigationally significant changes to the mariner in a timely manner.

   Since the paper chart and ENC processes are different, it is recommended that ENC updates be derived from the source information rather than from the paper chart (P) NM. It is often the case that the paper chart (P) NM does not provide enough detail to encode the ENC update exactly as it should be.

3. Simple or more complex encoding methods are possible but HOs should consider carefully which encoding method is appropriate when creating an ENC update with due consideration for time.

4. Often, information received is too complex, extensive and/or imprecise to be encoded with the relevant S-57 objects. In these instances the use of the CTNARE object and its attribute INFORM is preferred to give a précis of the overall changes together with detailed navigationally significant information. For complex or extensive changes the CTNARE should have an associated TXTDSC file containing precise details of the preliminary information. See also Part A, §7. If the information is less precise then the INFORM attribute can be used to inform users of this fact.

   It is noted that the mariner, if it is considered necessary, has the facility in the ECDIS to add "Mariner Objects" and annotate them. These can be saved in the SENC based on information provided in textual form by the TXTDSC or INFORM attributes. It is envisaged that these objects would be created at the "Route Planning" stage and act as a prompt during the "Route Monitoring" phase.

   When information is issued as advance notification for an ENC it is necessary to provide as soon as possible to the mariner the final and full charted information encoded with the relevant S-57

Commentaire [YLF2]: Will be updated

objects. An ENC update or a new edition of the ENC cell can then be issued at a later date when the HO can carry out full encoding of the changes. The period of time will depend on the following:

- the time needed by HO to undertake the full encoding with relevant objects
- the time needed to obtain confirmation of details
- the date at which the real world situation is stabilized and any forecast changes have been completed.

5. Source Information received may contain some navigationally significant elements that are simple to encode with the relevant objects in a timely manner. In these instances these elements may be encoded with the relevant objects provided that they reflect the 'real world' situation after the ENC update is made available to the user. However, if the changes are subject to continual change these objects should be amended as a consequence and will represent additional work for the HO. In such cases, the ENC update should also warn users that the situation is subject to change. For temporary information, see part A.

6. Use of DATSTA – DATEND: see part A, §6.

7. Use of INFORM: see part A, §7.

8. Diagrams are sometimes very useful to the mariner, e.g. for indicating changes to complex routeing measures or the introduction of new ones. A picture file may be referenced using the attribute PICREP in such cases. As the CTNARE object does not allow PICREP attribution, the picture file may be referenced by a M_NPUB object which shares the same geometry as the CTNARE.

9. ENC updates issued for Preliminary information should be managed and reviewed regularly. For example further source information may have been acquired requiring a further ENC update, this may add, modify or cancel information previously promulgated.

   Further verification is recommended to make sure that the encoded ENC update is consistent with the corresponding paper notice.

GUIDELINES FOR TYPICAL CASES

a. Traffic separation schemes

   Encoding bulletin E25 – April 2009 and following versions should be applied. For the use of the attributes DATSTA end DATEND, see also, part A, §6.

b. Complex information within an area of change (e.g. works in progress)

   A CTNARE object is created to cover the area. Information is provided in either INFORM, e.g. under construction, or TXTDSC when it is necessary to give more detailed information. If sufficiently detailed information is available, then navigationally significant information such as navigational aids, fairways, regulated area, etc. can be created or modified within the CTNARE if time permits.

   As the CTNARE object does not allow PICREP attribution, the picture file may be referenced by a M_NPUB object which shares the same geometry as the CTNARE.

   Alternatively and if considered appropriate a RESARE – "entry prohibited area" object can be used instead the CTNARE object.

c. Simple information which does not need an additional notification of caution

The relevant object and the appropriate attributes are encoded with any additional contextual information provided in INFORM or TXTDSC. In this case it is not necessary to use a CTNARE object. This could apply, for example, to submarine cables or pipelines being laid (CBLSUB, PIPSOL) or area under reclamation (LNDARE with CONDTN = 3 "under reclamation"). If necessary the encoding should reflect, if appropriate, that positions are approximate.

d. Depths less than those charted within a defined area

If the depths values and their positions are known, a SOUNDG object(s) may be created or modified. Any affected depth contours and depths areas should also be amended as necessary. The source of the information should be encoded using the attribute SORIND. However, HO should carefully consider the time needed to update ENC depth information and the complexity of changes to the topology that may be required. The encoding of amended SOUNDG, DEPARE and associated objects could be inappropriate for promulgating this navigationally significant information within acceptable time scales.

In this case a CNTARE is the preferred option. In such cases, only the most significant amendments to depth information should be provided in the attribute INFORM or TXTDSC. This method should also be used if the depth values and/or the exact positions are unknown, or if the HO only has information relating to a limited number of depths values.