

ic-enc.org
International Centre for ENC's

ENC Updating

Status and Issues

Vaughan Nail, UKHO

WEND Principles

- 1.1 Member States will strive to ensure that mariners, anywhere in the world, can obtain **fully updated** ENC's for all shipping routes and ports across the world.

- 2.7 Technically and economically effective solutions for updating are to be established conforming to the relevant IHO standards.
The updating of ENC's should be at least as frequent as that provided by the nation for correction of paper charting

WEND 11

- At the recent WEND meeting, the Committee identified that there are significant improvements required which require urgent attention related to:
 - Coverage
 - Consistency
 - Quality
 - **Updating**
 - Distribution
- New WEND guidelines make it clear that:
 - It is essential that coastal States have established cartographic capability and infrastructure prior to undertaking ENC production **and maintenance** tasks themselves so as to ensure that the ENC's within the WEND database meet the high quality standards necessary to fulfil SOLAS requirements

IC-ENC Findings

- Recent research by IC-ENC, plus growing feedback it has received from mariners comparing paper charts with ENC's, supports this conclusion.
- There is evidence that some HO's:
 - Have no updating capability to support their already issued ENC data (which has therefore been withdrawn)
 - Prioritise ENC production resources on new coverage rather than on updating existing coverage
 - Do update ENC's, but significantly later than paper charts
 - Routinely update in a timely fashion, but on occasions accidentally overlook an update

Conclusions

- It is vital that ENC's are maintained at least to the same standards as paper charts
- It is not advisable to issue any ENC data to the market until robust updating regimes are implemented.
- Allocating resources to maintain already published ENC's must take priority over production of new ENC coverage
- Creating ER profiles to update ENC's is preferable to creating new editions as it makes it easier for integrated service providers to offer remote and online updating services (less data volumes to be transferred)

Preliminary / Temporary Notices

- Many HOs produce T&P notices for their paper charts
- Recent research by PRIMAR/IC-ENC has confirmed a mixed picture for ENC's.
- Of 26 nations who responded:
 - 38% update ENC's for all Temporary notices
 - 27% update ENC's for all Preliminary notices
 - 8% update ENC's for only the most significant Temporary and Preliminary notices

Preliminary Notices

- Tend to be used to give:
 - Advanced notice of known future events (e.g. new TSS scheme, re-opening of fairway)
 - Warning of changes which have taken place but yet to be properly updated on ENC (e.g. new survey)
- These are sometimes not prescriptive, e.g.
 - Only have general indications of changes within an area and so cannot be easily linked to specific object.
 - Exact timing of event not known.
- Caution areas could be used to highlight general changes in an area, but caution areas are already overused and contribute to clutter and frustrate users when they trigger alarms – so navigational significance needs to be taken into account.
- Text / Tiff files associated with relevant area objects may be more suitable approach in some instances.

Temporary Notices

- More widely used, and more likely to be linked to specific objects in ENC's
- However there is a balance between:
 - Length of time change occurs
 - Likelihood of mariner receiving update within this timeframe
- In theory, ENC update distribution will be faster than paper chart corrections.

DATSTA / DATEND

- Where start or end of change is known, DATSTA and DATEND can be used:
 - DATSTA – When object appears on display
 - DATEND – When object disappears from display
- However:
 - Older ECDIS may not utilise this attribution correctly
 - DATSTA must precede DATEND (so cannot issue preliminary ER which makes an object disappear from view for a limited period, e.g. buoys removed during winter months)

Traffic Separation Schemes

Perhaps the most important application is to notify changes to TSS.

Given ECDIS legacy issues, safest approach is:

1. Issue advance notice of intended change for route planning
 - Create caution area, or add INFORM to most prominent feature of the TSS. May also wish to include M_NPUB object so can add pictorial representation of changes using attribute PICREP.
2. Issue preliminary ER shortly before change which:
 - Inserts DATEND on existing TSS so it disappears on assigned date
 - Creates new TSS objects encoded with DATSTA so it appears on assigned date
3. Issue ER issued when change takes place which:
 - Deletes old TSS objects.

Step 3 is to address problem with older ECDIS which may show both old and new TSS together. It may also be advisable to warn users of this by issuing warning through integrated service providers.

ic-enc.org
International Centre for ENC's