

Paper for Consideration by TSMAD

Encoding Bulletin to address Cancel Cell Update

Submitted by:	United States (NOAA)
Executive Summary:	This paper requests that TSMAD issue an encoding bulletin highlighting a issue with cell cancellations within an ECDIS
Related Documents:	S-64 and S-57
Related Projects:	

Introduction / Background

As part of its ongoing negotiations with Canada regarding the elimination of ENC overlaps, the United States had to cancel some of its ENC cells. Even though our production software conformed to S-57 and passed independent S-58 validation in regards to these cancellation updates – the updates could not properly cancel on some type approved ECDIS.

Analysis/Discussion

In researching the issue, it was concluded that the software issued the update in conformance with S-57, however, the OEM cancellation mechanism was in strict conformance to S-64. This issue highlights an inconsistency between S-57 and S-64 and because S-64 is used as the test dataset during type approval, the OEM used the S-64 notation for the cancellation instead of the general guidance given in S-57.

S-57 states the following:

In order to delete a data set, an update cell file is created, containing only the Data Set General Information record with the "Data Set Identifier" [DSID] field. The "Edition Number" [EDTN] subfield must be set to 0. This message is only used to cancel a base cell file

MD8 also issued the following correction:

7.Co.30 Amend the fifth last paragraph to read: "In order to delete a data set, an update cell file is created, containing only the Data Set General Information record with the Data Set Identifier [DSID] field. The Edition Number [EDTN] subfield must be set to 0. **The [DSSI] field must not be included in this update message.** This message is only used to cancel a base cell file." (See also [7.CI.8](#))

S-64 also includes empty feature and vector records in addition to the DSID and DSSI updates. This is not consistent to what is stated in S-57.

In further discussion with IC-ENC and the UKHO, it was noted that this was not a problem isolated to the United States and an encoding bulletin should be issued highlighting ENC software manufactures to this issue and to take appropriate action if needed.

Conclusions and Recommendations

The United States feels that in the interest of safe navigation that an encoding bulletin is issued by TSMAD highlighting this issue. Not every Hydrographic Office is a member of a RENC or has access to ECDIS to ensure that their cancellations work as designed.

Justification and Impacts

While the root cause of this issue is in S-64, this is an issue that is easier to fix via the production system and the Hydrographic office than via the OEMs. Cancellations do not occur often, however, when they do they are usually to either issue expanded coverage or eliminate an overlap. Once the Hydrographic office has issued the cell cancellation, they no longer update the cell and if the mariner still has the cell on their system they would be navigating using data that is potentially out of date without even realizing that the cell has been cancelled.

Action Required of TSMAD

The TSMAD is invited to:

- a. note the issue regarding the inconsistency between S-64 and S-57
- b. agree to issue an encoding bulletin highlighting the issue.