

Paper for Consideration by HSSC

Developing guidance and “rules” for the conversion of S-101 ENCs to S-57 ENCs

Submitted by:	IC-ENC & PRIMAR RENCs
Executive Summary:	Request to HSSC to task an appropriate HSSC WG to develop guidance and “rules” for the conversion of S-101 ENCs to S-57 ENCs
Related Documents:	N/A
Related Projects:	ENCWG work programme regarding ENC conversion rules S-57 to S-101.

Introduction / Background

IC-ENC Steering Committee convened in November 2021. 37 ENC Producers (of which 34 are IHO MSs) were represented, along with IHO-S as an Observer. ENC conversion (S57 to S101, and S101 to S57) was discussed.

The IC-ENC Steering Committee understands that the ENCWG is developing guidance and “rules” regarding conversion from S57 to S101 (“forwards”), but not the other way around. The Steering Committee discussion concluded that developing standardised approaches to conversion “backwards” should be considered. An Action was set by the Steering Committee for IC-ENC to approach the ENCWG to request it considers this extension to its work programme.

ENCWG Chair has informed IC-ENC that the correct method is to request this action from HSSC, not directly from the WG itself.

Following the Steering Committee meeting, this topic has been discussed with PRIMAR RENC and subsequently this paper is submitted jointly by IC-ENC & PRIMAR.

Similarly, the PRIMAR Advisory Committee (PAC) has tasked PRIMAR to investigate S-57 to S-101 conversion, as well as S-101 to S-57 conversion.

Analysis/Discussion

S-101 is an evolution of S-57, with structural refinements and limited extensions. Swift adoption is predicated on “conversion” as a means to reduce the burden on ENC Producers. Under the IHO ENCWG a Conversion Sub Group is developing guidance on conversion from S-57 to S-101. This is understood to be making good progress and increasingly Producers are converting their data to gain experience and inform this work.

IC-ENC Members, at IC-ENC Technical Conference 21_1 (TC21_1), conducted an S-101 Conversion “deep dive”. Noting that various options that exist for ENC Producers, and there are likely to be a range of operational practices developing, the IC-ENC TC21_1 discussed examples of different conversion scenarios and established 5 (potential) stages; Data preparation, Conversion S-57 to S-101, Migration, Conversion S-101 to S-57, Production of S-101 only.

Conclusions

Future likely MS stages of “Data preparation” and “Conversion S-57 to S-101” will be supported by the existing ENCWG work programme. “Conversion S-101 to S-57” is not (currently) being considered by an HSSC WG, however conversion in this direction is considered to be required to support the IHO S-100 Roadmap (and see Council 5 paper C5-04.1A and Action C5/13).

Recommendations

It is recommended that HSSC tasks an appropriate WG to develop guidance and “rules” for the conversion of S-101 ENC’s to S-57 ENC’s.

Justification and Impacts

For an (unspecified) duration there will continue to be “older” ECDIS systems that require S-57 ENC’s. HO’s that plan to move directly to native S-101 production, will benefit from a conversion process to create the S-57 data from their S-101 databases. This should happen in a consistent manner, and central IHO guidance will assist. This work might leverage the experience gained from work on conversion from S-57 to S-101 as it is thought that some aspects will be “reversible”.

Action Required of [HSSC] [Relevant HSSC WG]

The HSSC is invited to:

- a. endorse the recommendation and task an appropriate HSSC WG to develop guidance and “rules” for the conversion of S-101 ENC’s to S-57 ENC’s.