

35th North Sea Hydrographic Commission Meeting (NSHC)

5th to 6th April 2022

Report of North Sea International Charting Co-ordination Working Group (NSICCWG)

Submitted by: Ashley Hawkins - NSICCWG Chairman: March 2022

Related Documents: Minutes of NSHC34 April 2021

Background

1. The North Sea International Chart Committee (NSICC) devised the original scheme of International Charts of the North Sea. Details were set out as Appendix F to the NSICC Report to the XIth International Hydrographic Conference (1977)
2. After discontinuation of the NSICC in 1983 the North Sea International Chart Sub-Committee (NSICSC) succeeded this group (Conclusion 43 of the 14th NSHC Conference).
3. The NSICSC, in turn, was disbanded in 1988 (Conclusion 52 of the 17th NSHC-Conference), but an Ad-Hoc Working Group on INT Charts was established at the same meeting (Conclusion 53)
4. In 1989 (18th NSHC Conf.) the Ad-Hoc group was replaced by the NSHC INT Chart Scheming Group (Conclusion 56); the Chairman was provided by the Netherlands.
5. During the 20th NSHC Conference it was concluded to change the name into North-West European Charting Group (Region D) because the charts covered a larger area than the North Sea.
6. The Netherlands provided the Chairman/Coordinator, Hans Ferwerda, for the North-West European Charting Group (Region D) until June 2004. The United Kingdom has provided the Chairman since then.
7. At the NSHC 29th Conference in September 2010 (Conclusion 85), the NSHC Members agreed to change the name of the NW European Charting WG to the North Sea International Charting Co-ordination Working Group (NSICCWG) The NSHC 29th Conference also established the North Sea ENC Harmonization Working Group (NSEHWG) which reported for the first time at the 30th Conference.
8. The NSEHWG was disbanded at the NSHC 32nd Conference in June 2016 (NSHC decision 11/2016) because the ENC scheme in the region had reached maturity with few if any issues. The decision was taken to incorporate the remaining relevant tasks of the NSEHWG, as well as ENC coordination in the region, into the new ToR for the NSICCWG this was done at the to align it with the ToRs of other regional ICCWGs. At the 33rd Conference, the new NSICCWG ToR were agreed. Additional adjustments to the ToR were agreed at NSHC 34.

9. Overview

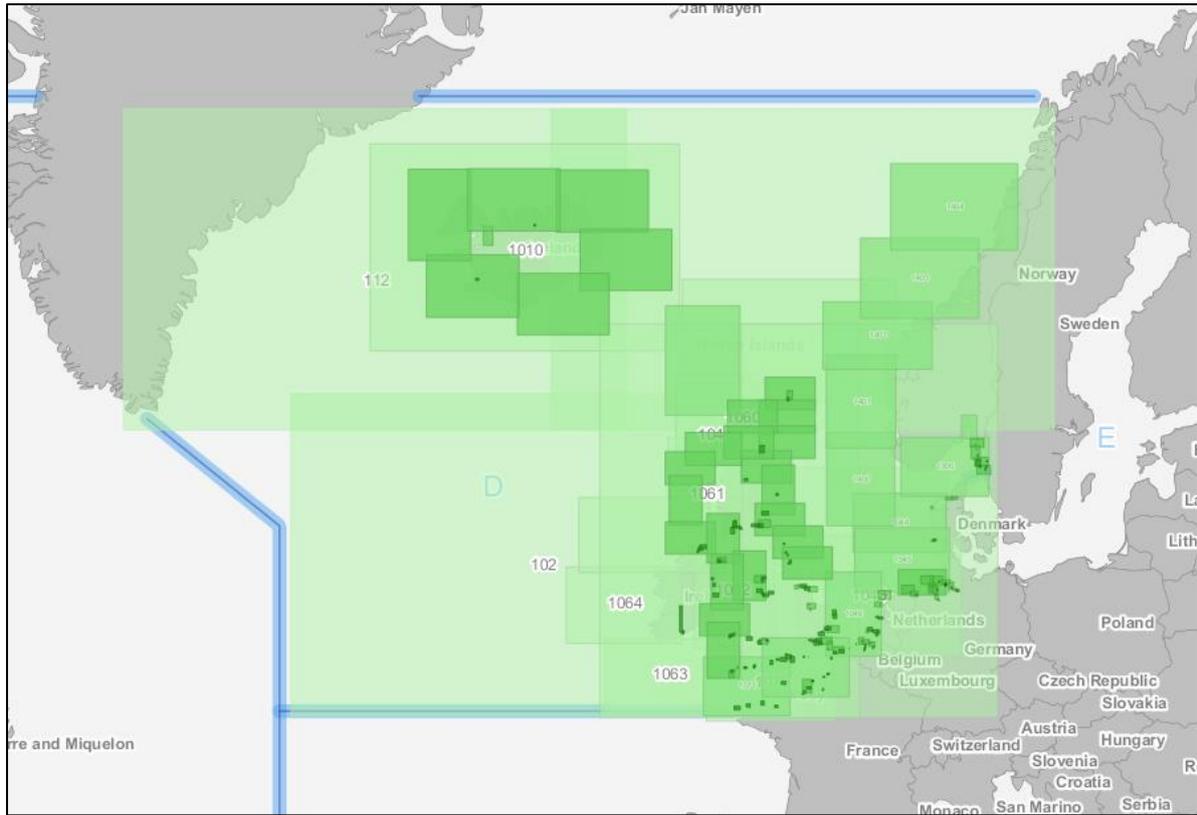
9.1 Revised management review and monitoring of INT charts (IHO CL64\15 and 89/15 refer)

In 2015, IHO CLs 64/15 and 89/15 detailed the new procedures for the management review and monitoring of INT charts. The main elements of the new process are as follows:

- All new INT Charts to be submitted to Regional INT Chart Coordinator (ICCWG) for review.
- INT Chart Coordinator (ICCWG) to verify chart's compliance with IHO standards and to provide feedback to the Producer Nation.
- Modernisation of IHO Publication S-11 Part B by implementation of the new INT Chart web catalogue (INToGIS). Responsibility for updating the INToGIS system for chart updates now lies with member states rather than the INT Chart Coordinator.

All of the above have been implemented in Area D. There are, however, still a few member states who have yet to update the web catalogue for changes to their INT charts despite reminders. We urge members to ensure the web catalogue is updated so that it remains authoritative.

9.2 INT CHARTING.



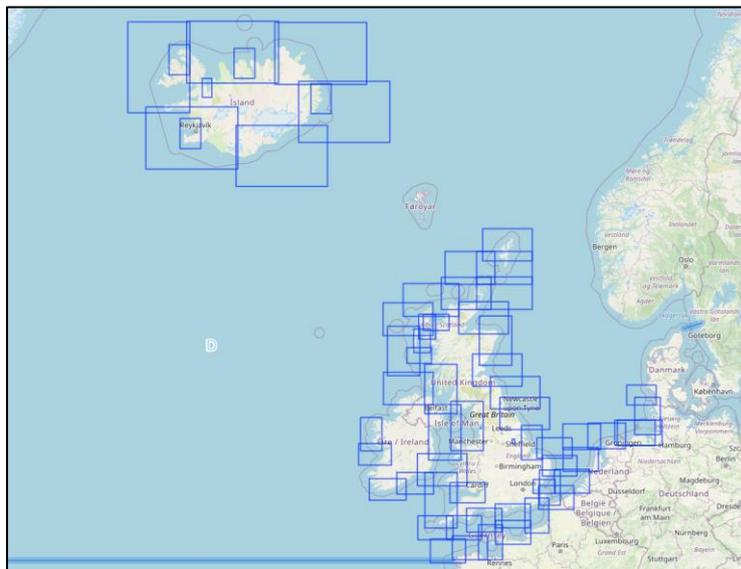
REGION D INT CHART PANELS BY USAGE

Overview	17	General	13
Coastal	64 (including plans)	Approach	70 (including plans)
Harbour	232 (including plans)	Berthing	40 (including plans)
Total	436 (including plans)		

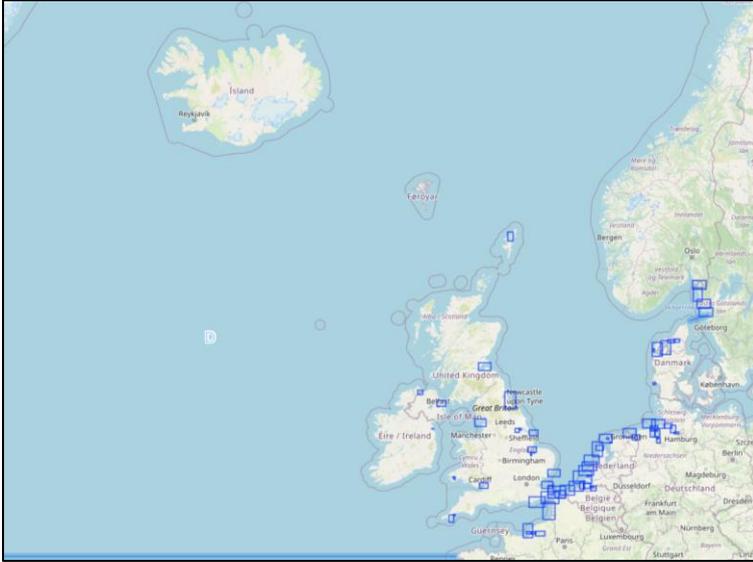
REGION D INT CHARTS BY PRODUCER NATION

BE	3	DE	15
DK	8	FR	25
GB	141 (16 co-produced with NL)	IS	14
NL	20 (16 co-produced with GB)	NO	7
SE	5	Total	222

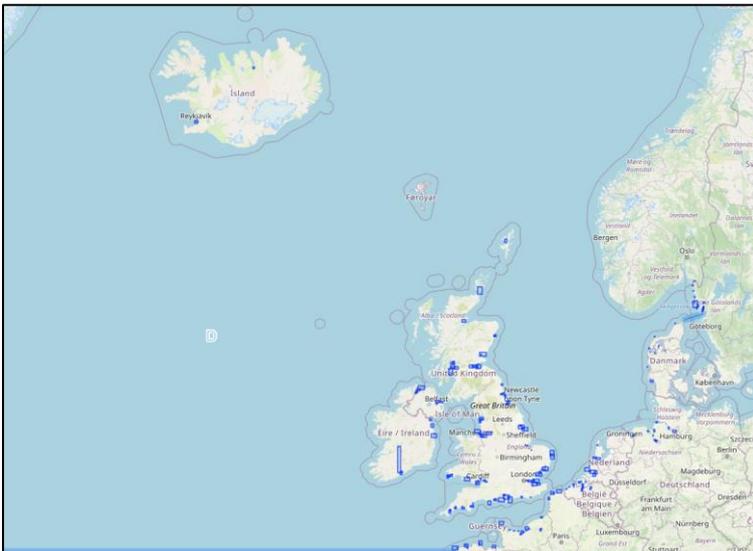
Coastal



Approach



Harbour



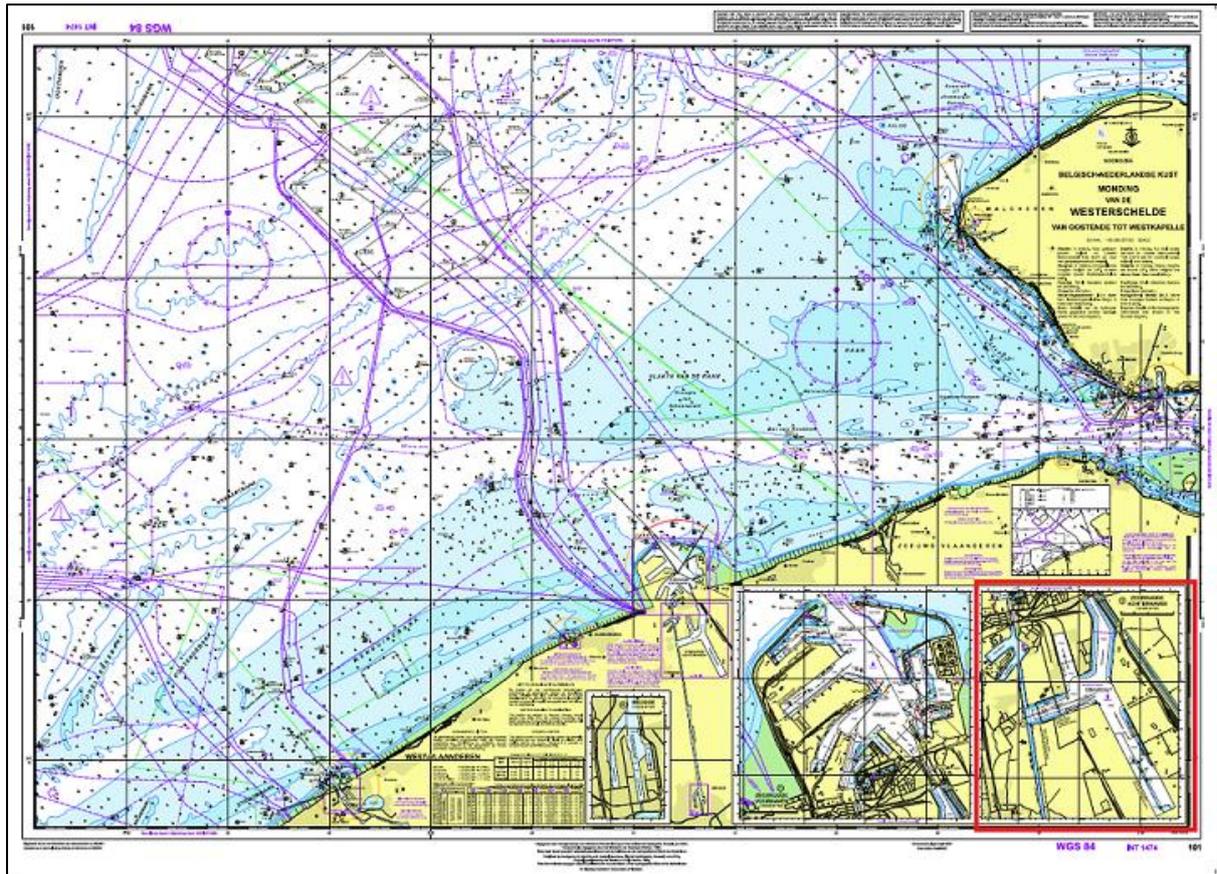
There are 222 full INT Charts containing 436 panels in the region. There is only an increase of one panel in the last year. Region D has a mature INT chart scheme compared to other INT Regions and changes continue to be relatively few in number. As such there has been no requirement for Members to meet for many years. All matters are dealt with by correspondence.

Nevertheless there have been some changes and developments to the INT charting scheme and ENC coverage since NSHC 34 in 2021. Details are given in sections 10 and 11 below.

10. REGION D INT Chart changes since 2021

Belgium

Belgium have completed and published an amendment to INT1474. This change saw the inclusion of a new inset plan of the Port of Zeebrugge Achterhaven at scale 1:20,000. The revised Chart was published in April 2021.

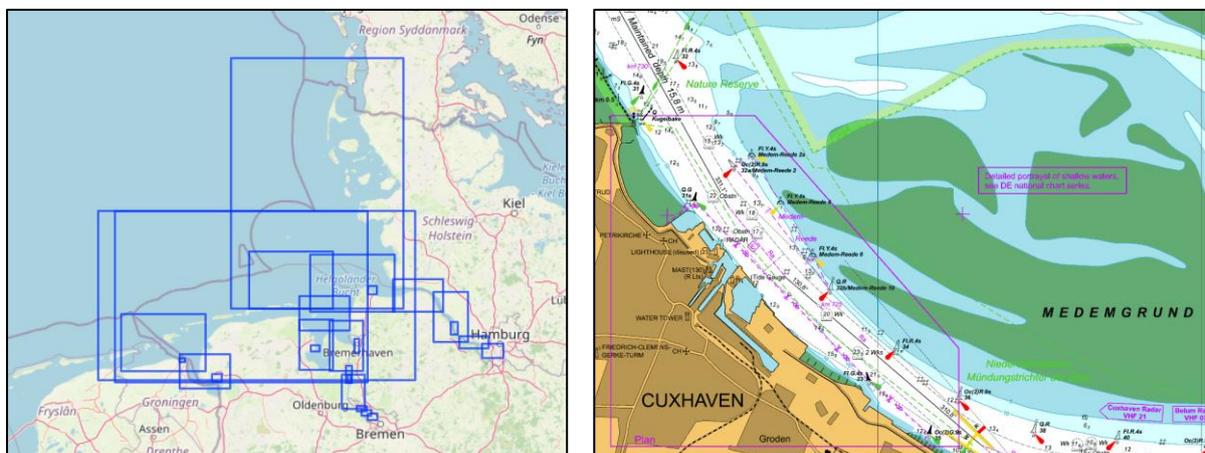


France

France announced their intention to withdraw as a printer nation of several INT charts throughout their paper chart series between September and December 2021. Within the Region D area, 13 INT Charts are impacted and these are largely French reproductions of GB produced INT charts.

Germany

Germany has completed the transfer of INT charts to AO size and standardised scales of 1:12,500, 1:30,000, 1:50,000, 1:150,000 for Region D. These INT charts are co-published with GB. The speciality of these charts is the reduction of content in the shallow waters up to the 5m contour line. For navigation within shallow areas users should instead refer to the DE national chart series or DE ENC's.

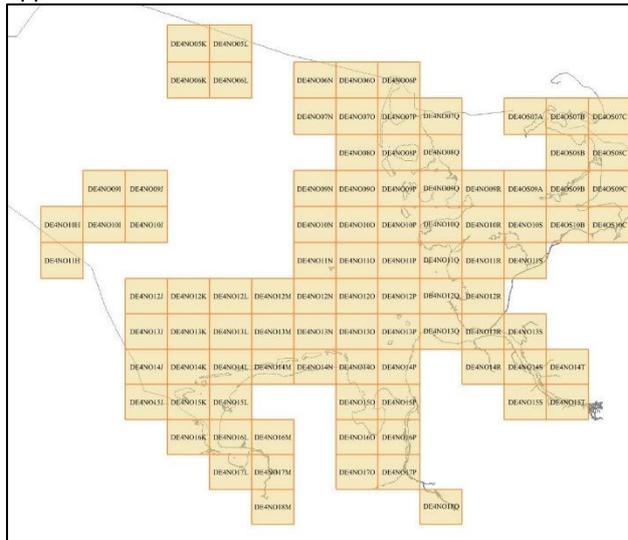


11. ENC Rescheming since 2021

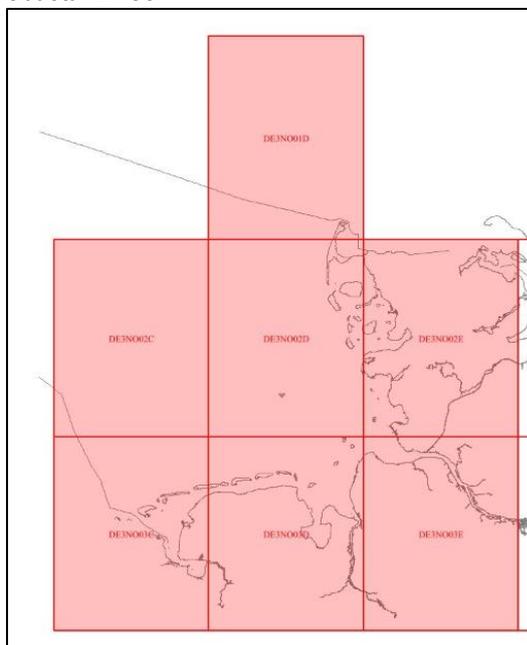
Germany

Germany is continuing the process of rescheming its Approach and Coastal ENCs to a gridded system. In the North Sea region this work has now been completed, as shown below. Germany do not intend to grid ENC in the harbour, berthing, general and overview usage bands.

Approach ENCs



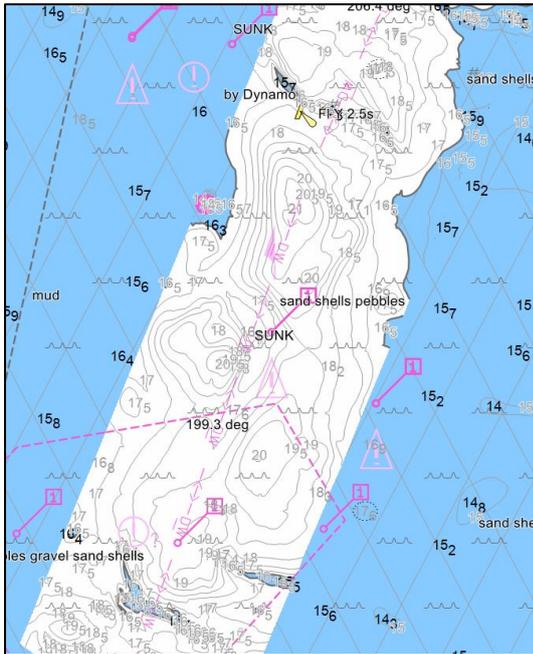
Coastal ENCs



United Kingdom

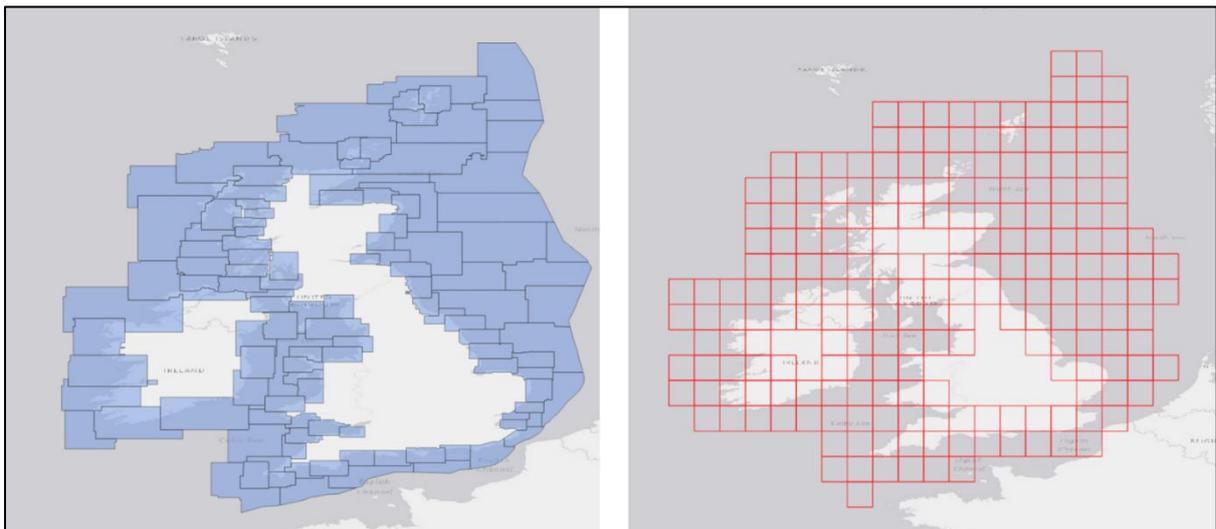
United Kingdom has issued 3 additional HD ENCs with contours at 0.5m or 1m intervals in the Sunk, Kyleakin and Leith. Two further HD ENCs are in production to complement the Sunk HD ENC issued late in 2021. Working with Pilots combined with user feedback has identified that the benefit of HD ENC is not always realised by the user when the HD ENC is captured at a larger scale usage than the existing coverage and the user on passage is typically navigating at a radar scale appropriate to existing coverage. To this effect HD ENCs in the Sunk have been clipped into the existing Approach scale coverage and the existing HD ENC covering Tail of the Falls in the Dover Strait has been re-schemed from standalone Harbour scale to Approach scale and clipped into

the existing Approach scale coverage. UK is working to produce more HD ENC typically in constrained areas of critical under keel clearance in the coming year.



United Kingdom is also embarking on a comprehensive programme of ENC Improvement to develop the service and the user experience. The project team intends to start publishing the first outputs after April 2022 with a plan for the work which will last several years before completing. The project scope covers all GB ENC coverage and there are many different components including:

- Scale, Area, and Line Feature Consistency between adjoining ENCs
- Isolated Danger Attribution
- A Regular Gridded Scheme across all Scale Bands
- Additional Contouring
- Datum Inconsistencies, Chart Accuracy and Conversions



Example of the existing (left) and future (right) GB ENC schemes at Coastal scale (Band 3).

France and United Kingdom are working together to re-scheme ENC coverage of the Channel Islands for producer consistency through the scale Bands with each maintaining national coverage within their own waters in place of the existing arrangement with producer based on usage band.

12. ENC Overlaps and gaps issue

The NSHC representative to WEND reported on this issue at WENDWG12. This is a long standing issue that NSICCWG members feel needs resolving by relaxing the IHO guidance of only allowing a 5 metre overlap buffer zone at national data limits - IHO Resolution 1/2018 Chapter 2.1.8 - Seamless ENC coverage, S-57, APPENDIX B.1, Annex A - Use of the Object Catalogue for ENC.

“There must be no gaps in data between adjoining cells of the same Navigational Purpose. Similarly, there must be no overlapping data between cells of the same Navigational Purpose (see S57 Appendix B.1 – ENC Product Specification, clause 2.2), except at the agreed adjoining national data limits, where, if it is difficult to achieve a perfect join, a 5-metre overlapping buffer zone may be used.”

Numerous factors make this difficult:

- Adjoining national data limits are complex in our region consisting of diagonal lines and curves
- Members use different GIS systems with different levels of precision and different geodetic parameters.
- Overlaps are primarily in deep ocean areas where depth data is sparse and of poor quality. The ICENC risk assessment of these is low priority.
- Adjusting borders is a time-consuming process. Members have already conducted several rounds of adjustment

NSICCWG Members believe a more pragmatic approach should be employed in our region which recognises the management work conducted by the RENCs on the matter and the risk assessments that they conduct.

The following recommendation was made for WENDWG to note:

NSICC and WENDWG Representative will support and encourage members to resolve Overlaps deemed as High Risk and Medium Risk overlaps would also be considered as ‘HO Must Correct’ which would mean all overlaps for most Band 3 and 4 cells (used for navigation) must be resolved alongside those for Bands 5 and 6.

In future NSHC will report on ENC overlaps deemed medium and high risk and ENC gaps that are larger than 1mm at compilation scale. At present none exist.

13. The NSHC is invited to:

- a. Note the status of the INT Chart schemes via IHO INTToGIS and ENC Chart Catalogue links.
- b. Note the recommendation made to WENDWG that NSHC will report on ENC overlaps deemed as medium and high risk and ENC gaps greater than 1mm at compilation scale.

Ashley Hawkins - NSICCWG Chairman.

March 2022