



15th Meeting of the Hydrographic Services and Standards Committee

CIRM activities affecting HSSC

Agenda Item HSSC15-07.5A

HSSC-15, Helsinki, Finland, 5 – 9 June 2023



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ABOUT CIRM

International
Hydrographic
Organization

- International association of marine electronics companies
- We are an NGO in Consultative Status to IMO
- Approx. 110 members, including:
 - Equipment manufacturers
 - Service providers
 - System integrators
 - ECDIS companies – manufacturers, kernel makers, data providers (UKHO, NOAA)



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RECENT AND UPCOMING CIRM MEETINGS

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- CIRM Annual Conference 2022 (October, Malta)
- CIRM Annual Technical Workshop 2023 (April, Rotterdam)



- CIRM Annual Conference 2023 (October, Izmir)



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ECDIS – GUIDANCE FOR GOOD PRACTICE

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- IMO agreed to revise circular **MSC.1/Circ.1503/Rev.1** to provide clarification around onboard ECDIS updates
- CIRM collaborated with China on a draft revision
- NCSR 9 (June 2022) reviewed and developed the draft
- MSC 106 (Nov 2022) approved the draft revision, since published as **MSC.1/Circ.1503/Rev.2**



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ECDIS PERFORMANCE STANDARDS

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- IMO agreed to revise **MSC.232(82)** to introduce support for S-100
- CIRM collaborated with IHO-led group to prepare initial draft revision of the performance standards
- NCSR 9 (June 2022) considered and developed the draft revision
- MSC 106 (Nov 2022) approved the draft revision, since published as **MSC.530(106)**



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S-62 DATA PRODUCER CODES

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- In 2019 ENCWG “*strongly recommended ECDIS OEMs... keep [Data Producer Codes] updated at least on an annual basis*”
- OEMs do this for ECDIS in active development and production
- Updating in-service ECDIS is problematic (S-62 is not machine-readable / no requirement in IHO S-64 or IEC 61174 ...)
- CIRM recommends IHO explores **how S-100 could support maintenance of Data Producer Codes on in-service ECDIS**



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S-64 EDITIONS 3 & 4

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- S-64 edition 4 is being introduced to address the chart kernel defect that caused isolated dangers to be incorrectly rendered on ECDIS using that kernel
- Important consideration for manufacturers - if/when new edition 4 will apply to existing installed ECDIS
- CIRM's view is that to manage the impact of applying the updates to existing installations, **the edition 3 of S-64 should remain valid and listed on the IHO webpage with an expiry of 1st Jan 2029**



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S-100 ECDIS AND DUAL-FUEL MODE

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- CIRM supports work of IHO to develop S-100 ECDIS
- We participated in industry workshops convened by Jonathan Pritchard
- CIRM considered Dual-Fuel mode of operation in further detail at 2022 CIRM Annual Conference in Malta (October)
- We support the need to get Dual-Fuel ECDIS right and also invite HSSC to consider defining a retirement date for S-57 and inform the IMO of the outcome



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NCSR 10/21/8 (IHO)

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- CIRM supports IHO's statement (NCSR 10/21/8) that:

The revision of the IEC 61174 ECDIS Test Standard is critical and must be synchronized with the development of the relevant IHO S-100 products

- CIRM Members are active participants in revision of IEC 61174
- CIRM welcomes the IHO statement (NCSR 10/21/8):

... that adequate S-101 ENC coverage and appropriate complementary S-100 data/products services are expected when S-100 ECDIS becomes operational

- **Data availability is essential to the S-100 ECDIS business case**



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S-100 PRODUCT SPECIFICATIONS DEVELOPMENT TIMELINE

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- IHO specifications of greatest importance to CIRM Members are **S-100, S-98, S-128, S-164, S-101, S-102, and S-104**
- **The approval timeline of S-128 should be aligned with the timelines of the other critical product specifications.** This will bring forward development of the CDV of IEC 61174 ed.5
- Many/most CIRM Members type approve ECDIS to the EU MED. To be included in the EU MED Implementing Regulation published each June-August, **IEC 61174 ed.5 needs to be published by November/December of the preceding year**



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S-164 TEST DATA SETS

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- Development of a robust test dataset is essential for successful implementation of S-100 ECDIS
- It is therefore important for progress to be made on S-164
- CIRM encourages our Members to participate in this process



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LINKING PRODUCT SPECIFICATIONS TO NAUTICAL PUBLICATIONS (1 OF 2)

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- While printed nautical publications (NPs) will one day be available as digital layers in an ECDIS, the current situation around development of the associated S-100 PS is unclear
- IMO will decide when carriage of digital versions of the NPs listed in resolution A.893(21) will be acceptable over the paper versions



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LINKING PRODUCT SPECIFICATIONS TO NAUTICAL PUBLICATIONS (2 OF 2)

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- IHO (via HSSC) should support the work of IMO by **developing a mapping table linking individual S-100 PS to their associated NPs, with a timeline on when those PS will be available for implementation**
- In doing so the IHO will clearly inform the IMO which are the correct formats for electronic nautical publications (ENPs), and this will in turn assist the business case for the second step of S-100 ECDIS (Route Planning Mode)



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TYPE APPROVAL

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- S-100's first stage *Route monitoring mode* depends on at least 10 IHO standards - all of which will need maintenance
- To avoid the cost of frequent re-type approval, maintenance of IHO standards needs coordination & synchronised in-force dates
- Stakeholders need clarity about changes to S-100 standards that trigger **re-type approval** vs those that trigger **in-service updates** vs **clarifications** only
- CIRM encourages the IHO to document a framework policy on which changes to S-100 standards impact **type approval** only and which impact **in-service ECDIS**



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IHO STAKEHOLDER LIAISON

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- CIRM Members have expressed the view that there remains a need for more effective stakeholder liaison from the IHO
- According to IHO Resolution 2/2007 as amended:
 - “2.1.2 Where possible, assessment of the proposed changes should involve all stakeholders, not only IHO Member States, but all relevant parties such as international organisations, maritime administrations, equipment manufacturers, data distributors, industry, users and other professional organisations.”*
- The IHO liaised with ECDIS OEMS regarding the **technical content** but not the **introduction strategy** of S-64 Ed 4



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ACTIONS REQUESTED FROM HSSC

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1. Note CIRM's view that edition 3 of S-64 should remain valid and listed on the IHO webpage with an expiration date of 1 Jan 2029
2. Consider moving the S-128 approval timeline into alignment with the timelines of the other product specifications critical to implementation of S-100 ECDIS, as this will avoid delay in the development of IEC 61174 edition 5
3. Note the importance CIRM Members place on development of a robust test dataset for S-100 ECDIS (S-164)



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ACTIONS REQUESTED FROM HSSC

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4. Consider supporting the work of IMO by developing a mapping table linking individual S-100 product specifications to their associated nautical publications, with a timeline on when those product specifications will be available for implementation; this information will also assist manufacturers
5. Consider expanding the IHO stakeholder liaison process to ensure that OEMs are consulted over the introduction strategy, as well as the technical content, of new editions of IHO standards



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ACTIONS REQUESTED FROM HSSC

6. Explore how S-100 could support maintenance of Data Producer Codes on in-service ECDIS
7. Note the timeline between publication of IEC 61174 edition 5 and its incorporation into the EU Marine Equipment Directive
8. Consider documenting a framework policy on which changes to S-100 standards impact type approval only and which impact in-service ECDIS
9. Invite HSSC to consider defining a retirement date for S-57 and inform the IMO of the outcome