CIRM

An update from the
marine electronics industry

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Contents

1. About CIRM

About CIRM

- **Comité International Radio-Maritime (CIRM)**

- International association of marine electronics companies

- NGO in Consultative Status to IMO

- 112 member companies

Core scope of interest

Navigation equipment & systems

Radiocommunications & GMDSS
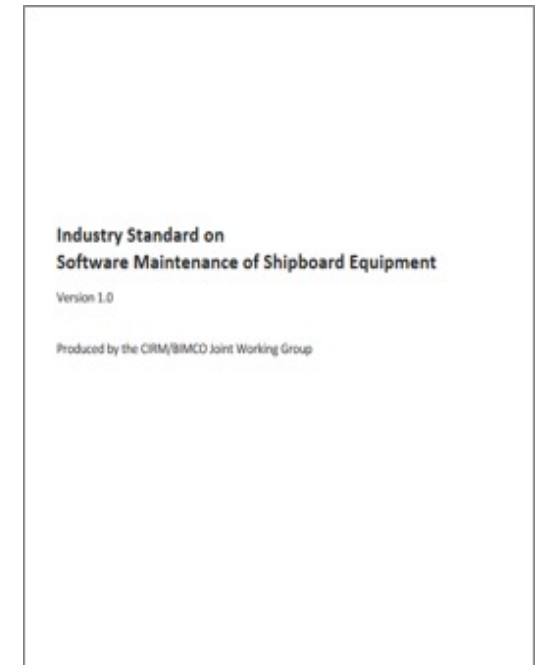
2. Shipboard software maintenance

Shipboard software maintenance

- **Industry Standard on software maintenance of shipboard equipment**

- Jointly published by BIMCO & CIRM in 2017

- Developed to improve shipboard
  SW maintenance + management

- Applicable to all shipboard OT systems

Industry Standard on
Software Maintenance of Shipboard Equipment

Version 1.0

Produced by the CIRM/BIMCO Joint Working Group

Shipboard software maintenance

- Industry Standard covers all actors in shipboard SW maintenance

- Includes five appendices:

  - Appendix 1: Software maintenance competency requirements

  - Appendix 2: Software maintenance planning flowcharts

  - Appendix 3: Checklist for communicating a software problem

  - Appendix 4: Electronic Service Reports

  - Appendix 5: Onboard software log

Shipboard software maintenance

Related ISO work

- **ISO 24060** (2021) specifies a **Ship Software Logging System (SSLS)**, and is based on Appendix 5 of the Industry Standard - *Onboard Software Log*

- **ISO 24060-2** (2023) specifies an **electronic service report** and is based on Appendix 4 of the Industry Standard - *Electronic Service Reports*

Shipboard software maintenance

- *Problem: Industry Standard is voluntary to implement*

- In 2022 an Industry Working Group developed **MSC 107/17/10**:

  Proposal for a new output to develop requirements for software maintenance of shipboard navigation and communication equipment and systems

- MSC 107 agreed new output for post-biennial agenda:

  Development of guidelines for software maintenance of shipboard navigation and communication equipment and systems

Shipboard software maintenance

- Industry Working Group reconvened this year to develop draft IMO guidelines

- Includes participants from across the shipping industry

Feb 2024 meeting at BIMCO HQ, Copenhagen

3. Next generation ECDIS (S-100)

Next generation ECDIS (S-100)

- **S-100** is the IHO's universal hydrographic data model

- Adopted by IMO as basis for technical harmonization of nav info exchange

- Next generation ECDIS will be built upon S-100

- S-100 ECDIS will be able to use different data products, e.g.

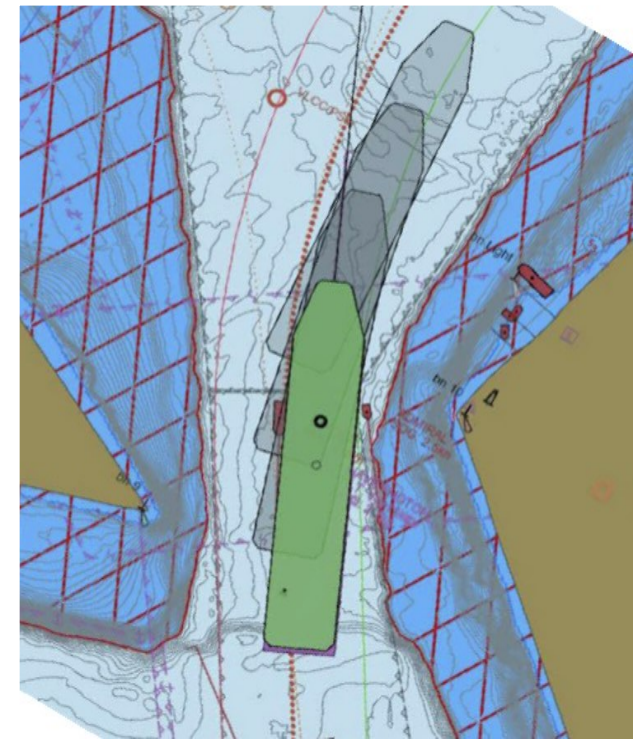S-101 Electronic Navigational Chart   S-102 Bathymetric Surface ->

S-104 Water Levels   S-111 Surface Currents

S-124 Navigational Warnings   S-129 Under Keel Clearance Mgmt.

Next generation ECDIS (S-100)

- **MSC.530(106)***[Rev.1]* introduces support for S-100 in ECDIS

- New installations:

  - ➤ voluntary from 1 Jan 2026

  - ➤ mandatory from 1 Jan 2029

- ECDIS complying with MSC.530 will be "Dual-Fuel", to aid transition to S-100

- Existing ECDIS can continue to be used for the time being

Next generation ECDIS (S-100)

- CIRM members foresee benefits to navigators & owners/operators

- ECDIS companies are implementing S-100 in their products

- Main reason to move to S-100 ECDIS - interoperable info layers

- Availability of production data will be essential to success!

Next generation ECDIS (S-100)

Advantages

- Reduces risk of grounding and mariner workload

- Improves safety and operating efficiency

- High-def bathymetry for safety contour creation; automatic water level adjustment

- Interoperable info layers with clutter control

- More cyber secure than current ECDIS

S-100 data already being trialled/used back-of-bridge and in PPUs, etc.

Next generation ECDIS (S-100)

- S-100 demonstrator will be installed in IMO this year (MSC 108)

- Hosted by CIRM, provided by NAVTOR and Hatteland

- Come have a play!!

Thank you

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