CIRM ECDIS Working Group

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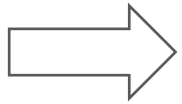
Increased Technical Focus

CIRM Technical Structure

- Technical Steering Committee
  - Chief Technical Officer
    - CIRM Working Groups  Output Papers

CIRM Working Groups

- E-navigation
- ECDIS
- Type Approval
- Radar
- Service
- VDR
- CIRM/BIMCO Joint Working Group

E-navigation Working Group

- Established in response to development of the e-navigation Strategy Implementation Plan (SIP)
- Provided input to the SIP during its drafting by the e-nav Correspondence Group
- Recently has contributed to the Harmonised Guidelines for Software Quality Assurance and Human-Centred Design in e-navigation

Type Approval Working Group

- Established to address ongoing Type Approval matters
- Concerned by apparent differences in interpretation of the rules by different class societies
- Currently monitoring implementation of the recast Marine Equipment Directive (MED), forecast for 2016
- Currently discussing the Mutual Recognition Agreement between EU/US, which the group would like to see updated

CIRM/BIMCO Joint Working Group

- Established in response to concerns over shipboard software update process
- Current situation – many stakeholders involved, but a lack of clarity on stakeholder roles/responsibilities
- The group is developing an industry standard for updating shipboard equipment
- Scope is not just nav/comms equipment, but any shipboard system with a software component

ECDIS Working Group

Overview

- ECDIS Working Group established to address all matters relating to ECDIS
- Composed of ECDIS manufacturers, data providers, chart suppliers, service companies. Open to all CIRM members.
- Work progressed via correspondence, at ad-hoc meetings, and annually at CIRM's Annual Meeting
- Convenor (CIRM CTO) circulates pertinent information to ECDIS WG when received (e.g. IHO, IMO, ITU communications)

Group members

Imtech Marine

Sperry Marine

ECDIS updating discussion

Background

- Several ECDIS-related standards are being revised
- IHO S-52 and S-64 have been revised and are undergoing approval for adoption
  - S-52 edition 6.1.0 improvements reduce risk of implementation irregularities
  - S-52 Annex A edition 4.0.0 contain display enhancements to increase ENC usability
- IEC 61174 edition 4 has been drafted by IEC TC 80 in coordination with IHO
  - Aligns with revisions to S-52 and S-64
  - Aligns with recent IMO requirements for alert management, AIS AtoNs, etc.
  - Provides test methods necessary for ECDIS Type Approval

Entry-into-force

- IHO, IEC and CIRM made proposal to NCSR 1 on implementation of revised standards

- Entry-into-force date of revised standards S-52, S-64 aligned with publication date of IEC 61174 edition 4 (anticipated to be September 2015)

- Previous versions of S-52 and S-64 will remain valid for 12 months (Sep 2016)
  - This provides a grace period for manufacturers to type approve new systems
  - Allows time for owners/operators to update existing systems

- This policy stated in IHO Circular Letter 55/2014 and subsequently approved by Member States

Importance of updating

- IMO Circular SN.1/Circ.266/Rev.1 states:
  - *ECDIS that is not updated for the latest version of IHO Standards may not meet the chart carriage requirements as set out in SOLAS regulation V/19.2.1.4*
- Revised editions of S-52 and S-64 are interdependent with IEC 61174 ed.4
- After current versions of S-52 and S-64 are withdrawn, ECDIS should be up to date with latest standards
  - Will ensure full ENC data is portrayed correctly in accordance with latest IHO standards

Practicalities of achieving compliance

- **New ECDIS** – ships can begin to install new equipment from Sep 2015 (following type approval of equipment to IEC 61174 edition 4)

- **Existing ECDIS** – ships can begin to update equipment from Sep 2015 (following availability of update)
  - Newer models - ECDIS can be upgraded with a software update
  - Older models - there may be upgrade implications for Operating System and Hardware

- **Further considerations**
  - Impacts on ECDIS functionality will have familiarization implications
  - For older unsupported models manufacturers must offer end-of-life advice

Owner/operator expectations

- Currently owners/operators do not view software updating of ECDIS as an expected part of routine maintenance
  - “Fit-and-forget” mentality persists
  - Contrast with any desktop PC where software updates are accepted as necessary
- Under current regime keeping equipment up-to-date is not mandatory
  - There is no IMO resolution requiring updates of shipboard equipment
- In reality shipboard equipment does need to be modified to maintain compliance with changing international rules (IMO, ITU, etc.)

CIRM's view

- Software updating must be seen as expected part of maintenance process, to ensure equipment performs properly and remains in compliance with rules
- However clear guidance on updating must be provided to the owner/operator
- Within the CIRM ECDIS Working Group we are compiling manufacturer advice on updating of ECDIS in response to the upcoming revisions to standards
- In collaboration with BIMCO (representing our end users) we are drafting an industry standard on updating shipboard equipment to identify clear roles and responsibilities

Summary

- Revisions of ECDIS standards are coming
- Existing ECDIS will need to be updated to comply with these standards
- Updating will require a software update for most models. In other cases upgrades to operating system / hardware will be necessary
- Software updating must come to be seen as expected part of equipment maintenance because rules change
- CIRM is working to provide advice and clarity for the updating of shipboard equipment, alongside industry partners