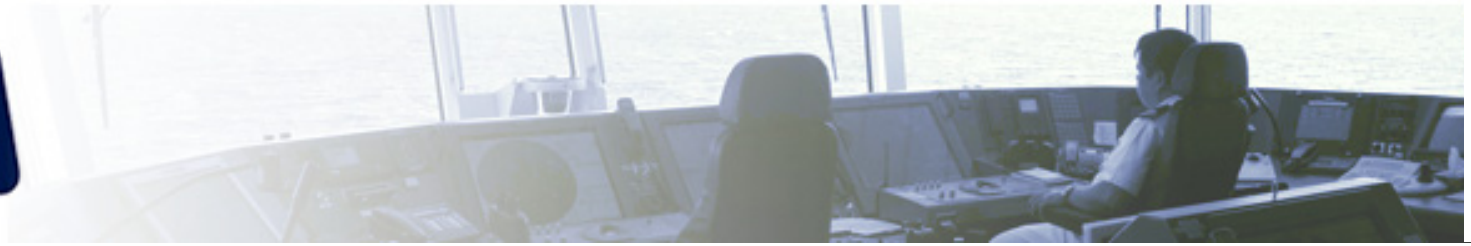


# Activities affecting HSSC

## Data integration and reliability visualization for better decision support

**Michael Bergmann MBA FRIN** Royal Institute of Navigation Science Technology Practice

**AFNI** The Nautical Institute

President CIRM

17 November 2016

# Overview

- CIRM today
- E-Navigation Training Certification
- Software Updating Guidelines
- ECDIS APT

# Who are CIRM?

- CIRM (Comité International Radio-Maritime) is a non-profit trade association
- We are an **NGO** in consultative status to the International Maritime Organisation
- More than 100 members from across marine electronics industry
- Our technical scope is navigation and radiocommunication equipment and systems

# E-Navigation training certification – A CIRM initiative

- The IMO e-Navigation initiative is currently focussing their documentation around guidelines, currently being developed by the large correspondence group, already established.
- At this point, many people do not have any reference point or understanding of what e-navigation is, its impact and the potential benefit to the many different stakeholders who will inevitably be involved.
- Therefore it is envisaged that there should be a clear method to determine whether these people, especially mariners, have enough information at hand on the impact and benefits of e-navigation.
- Consistent training and education is seen as essential by CIRM members. Therefore, the CIRM Board of Directors, with assistance from several member companies may develop and assess a comprehensive, non-generic training programme with certification that can be offered to the shipping community.

# E-Navigation training certification – Next Steps

- Preliminary investigations will be undertaken to establish a practical training programme and training providers involved will look at various methods of delivery.
- Consultation with maritime industry stakeholders will be essential over the next few months in order that development moves forward. Certificates of competence in e-Navigation Training are envisioned once external contributions are consolidated.
- Stakeholders would be informed on how to be involved

# Ship Equipment – Software everywhere

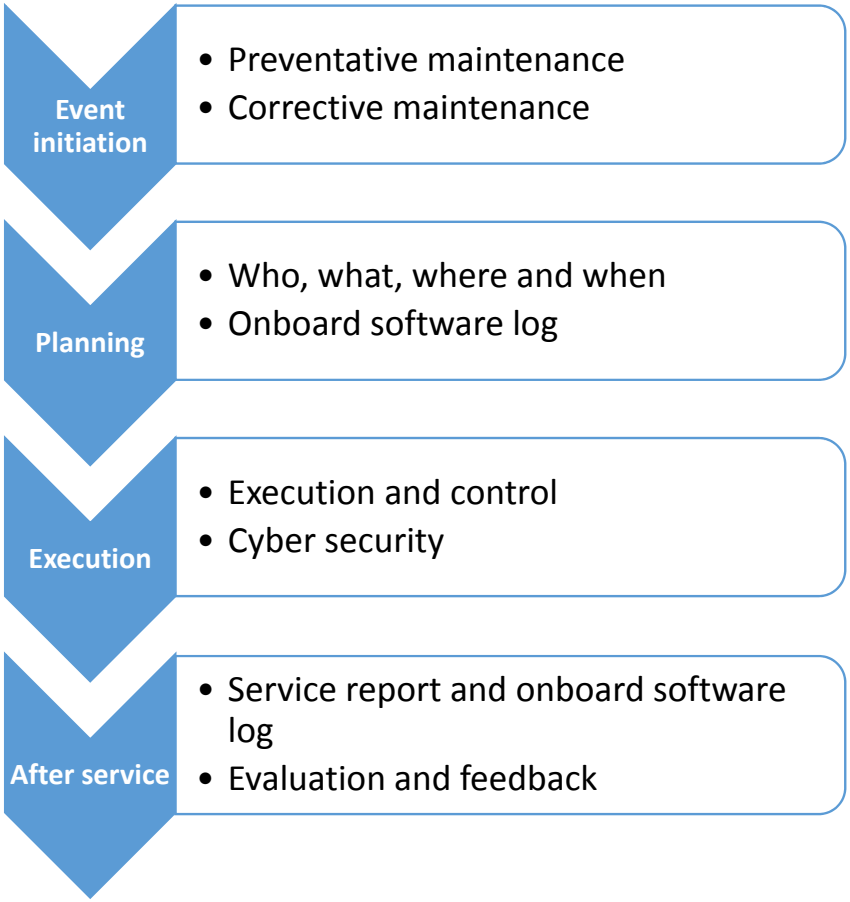
# CIRM and Software Maintenance Guideline

- BIMCO initially approached CIRM in 2013
- CIRM/BIMCO Joint Working Group (JWG) established 2014
- Aim: to develop a standard which can be presented to regulators
- CIRM has specific area of interest (nav/comms) – but “software is software”
- Work of the JWG has been transparent – IMO has been informed/updated
- Group developed 15 drafts before producing “Version 1.1”

# What are the concerns?

- **Lack of awareness / visibility about situation on board**
- **Competencies of service personnel**
- **Cyber security threats**
- **Other concerns**
  - Effectively communicate a SW problem to properly planned maintenance
  - Role-back procedures on failed updating
  - Interdependencies between sub-systems – An holistic Ship Electronics view

# The software maintenance process flow




An Event can be categorised as **preventative** and/or **corrective** software maintenance, and may or may not involve a software update.

The Event must be properly planned before it is executed in order to optimise arrangements and ensure the best possible outcome.

The Execution process is when maintenance is actually carried out, and it is critical that this is conducted in accordance with the Planning process.

Following completion it is important that communication continues in order to monitor the success of the Event, and to provide information which can be used to increase the effectiveness of future Planning processes

# The Pilot Project – Validating Software Updating

- Intention of pilot is to undertake small scale trial implementation of the Draft Standard
- Aim of pilot project is to evaluate the practicality of the Draft Standard
- Participants include manufacturers, service providers and shipping companies

# The Pilot Project - Timetable

| Milestone | Start date | End date |
|---|---|---|
| **Pilot Phase 1 (Stakeholder Assessment)** | 1st July 2016 | 30th September 2016 |
| ➢ Project Kick-Off Meeting | 1st July 2016 | - |
| ➢ Delivery of Stakeholder Assessments | 31st August 2016 | - |
| **Pilot Phase 2 (Harmonization of Assessment)** | 1st October 2016 | 31st December 2016 |
| ➢ Phase 2 Technical Workshop | 11th October 2016 | - |
| ➢ Delivery of Trial Reporting Documentation | 1st December 2016 | - |
| **Pilot Phase 3 (Trial Implementation)** | 1st January 2017 | 30th June 2017 |
| ➢ Phase 3 Kick-Off Meeting | [TBD] | - |
| ➢ Phase 3 interim progress meeting | [TBD] | - |
| ➢ Phase 3 reporting deadline | [TBD] | - |
| **Pilot Phase 4 (Results)** | 1st July 2017 | 31st July 2017 |
| ➢ End-of-project review meeting | [TBD] | - |
| ➢ Delivery of Project Report | [TBD] | - |

# ECDIS APT – Internal CIRM, to be discuss with others before moving forward

- The annual performance test of ECDIS required by SOLAS regulation V/19.2 and V/27 should be carried out by a competent entity recognized by the ship's Flag State and authorized by the manufacturer (the "competent entity").
- Where a ship's ECDIS back-up arrangements are met by a second independent ECDIS according to the safety equipment certificate, then the annual performance test also applies to the back-up ECDIS installation.
- The Annual Performance Test Certificate issued by the competent entity that carried out the test shall include the compliance status of the checked ECDIS installation with regards to the latest version of IHO Standards.
- To accommodate performance checks to align with the appropriate survey under the Harmonized System of Survey and Certification (HSSC), the annual performance test may be carried out up to 3 months before the due date for a passenger ship and -/+ 3 months of the due date for a cargo ship.
- The annual performance test should be recorded in the form of the model test report. If the language used is neither English nor French nor Spanish, the text should include a translation into one of these languages.

# ECDIS APT – Examination topics

- Confirmation that the ECDIS equipment is not in an obvious failure condition prior to the test;
- Confirmation that the ECDIS has adequate power supply arrangements in place;
- Confirmation by visual check that the display allows important features to be discriminated by colour;
- Confirmation that the ECDIS software version is displaying electronic charts correctly as defined by IHO;
- Confirmation that audible signal is available for new (unacknowledged) alerts;
- Confirmation that the ECDIS is interfaced with and receives the valid data from navigational sensors;
- Confirmation that the ECDIS has the ability to load ENCs and their updates;
- Confirmation that the input devices installed are in operational condition;
- Confirmation that the ECDIS uses correct Coordinated Universal Time (UTC) Time;
- Confirmation that the ECDIS has 12 hours/3 months voyage logs available;
- Confirmation that the overall condition of the equipment is satisfactory;
- Confirmation that the equipment is operational after completions of all checks/tests.

# THANK YOU!



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