



CHRIS/13/9.2A
13TH CHRIS MEETING
17-19 September 2001, Athens,
Greece



*Updating Type
Approval Standards
for
ECDIS*

A Report of IEC TC80 WG7

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IEC TC80 WG7



**INTERNATIONAL ELECTROTECHNICAL
COMMISSION (IEC)**

**TECHNICAL COMMITTEE No.80 (TC 80);
Maritime navigation and radiocommunication equipment and
systems**

**Working Group 7:
for IEC 61174
Electronic Chart Display and Information System (ECDIS)
Operational and performance requirements,
methods of testing and required test results**

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**IMO Performance
Standards**



- † formally adopted on 23 Nov 1995
- † issued as IMO Res.A.817(19)
- † can be considered to be the functional equivalent of chart requirements in SOLAS V/20
- † back-up arrangements, appendix 6, approved Nov 1996

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IEC 61174



**ECDIS - Operational and Performance
Requirements, Methods of Testing and
Required Test Results**

- † officially published by IEC in August 1998
- † basis for type/approval certification process for an IMO-compliant ECDIS

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RCDS Mode of Operation



† Adopted by IMO in 1998

† Became appendix 7 to the ECDIS

Performance Standard

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Overview



† IMO Performance Standard amendments and 61174 Ed2

– RCDS and Back-up arrangements

† 61174 Ed3

– Task 1: Review of RCDS Mode of Operation

– Task 2: Review of Back-up Arrangements

– Task 3: Review of Navigational Symbols

– Task 4: Display-related colour issues

– Task 5: Review of ENC and RNC Test Data Set

– Task 6: ENC Security

– Task 7: Editorial Review of Standard

– Task 8: SENC Distribution

– Task 9: Comprehensive review of test sections

– Task 10: Marine Information Objects

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Edition 2 Work Program



1. Incorporation of RCDS

2. Incorporation of IMO Back-up arrangements

3. Navigation Related Symbols

4. Colours and Symbols

5. ENC Test Data Set

6. Encryption

7. Miscellaneous improvements

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Task 1 – Review of RCDS Mode of Operation



Task Leader - Chris Drinkwater, UK

† Review RCDS Annex:

– Eliminate redundant testing between ECDIS and RCDS mode of operation (if any)

– Review RCDS references after document format change

† Related to and dependent upon Tasks 7 and 9.

† Related to IHO S-61. Ed. 3 should not be dependent upon S-61.

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Task 2 - Review of Back-up Arrangements



Task Leader - Per Larsen, Norway

- † Report on IMO efforts related to back-up arrangements (e.g., SOLAS)
- † Define specific back-up arrangement options
- † Review back-up references after document format change
- † Related to and dependent upon Task 7
- † Related to and dependent upon SOLAS 2001 and perhaps an amendment of Performance Standard

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Task 3 - Review of Navigational Symbols



Task Leader - Lee Alexander USA

- † Collect changes to existing navigational symbols [participate in WG13]
- † Expand Annex E to remove implied reliance on IHO Presentation Library for navigation symbol specification
- † Related to Task #4.
- † Related to 60872-1 (ARPA) and 61993-2 (AIS). [IHO S-52 Appendix 2 and any new IEC standard produced by WG13]

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Task 4 – Display Related Color Issues



Task Leader - Hannu Pieponen, Finland

- † Liaise with test houses to evaluate flat panel
- † Liaise with IHO C&S for display-related issues
- † Maintain a watch with IHO C&S
- † Related to Task #3

[IHO S-52 Appendix 2 and any new IEC standard produced by WG13]

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Task 5 - Review of ENC and RNC Test Data Set



Task Leader - Michel Huet, France

- † Liaise with IHO for issues related to the Test Data Set (e.g., S-52 Appendix 4, S-57 Ed. 3.0 ENC and S-57 Ed. 3.1 ENC, etc.)
- † Related to Task 1
- † Related to IHO S-57 and S-61. Ed. 3 should not be dependent upon either S-57 or S-61.
- † RNC test data sets completed for both NOAA-Maptech BSB and UK ARCs.

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Task 6 - ENC Security



Task Leader - Michel Huet , France

- † Liaise with IHO for issues related to ENC security
- † Related to Task 5.
- † May be related to and dependent upon an future IHO standard for security

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Task 7- Editorial Review



Task Leader - Joe Ryan, USA

- † New IEC MS Word template
- † Separate the standard into two parts:
 - 61174-1 ECDIS
 - 61174-2 ECDIS Back-up Arrangements
- † Cross-reference to Ed. 2
- † Index both parts
- † Related to all other tasks

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Task 8 - SENC Distribution



Task Leader - IHO Member

- † Liaise with IHO for issues related to SENC Distribution
- † Not related to other tasks
- † Related to and may be dependent upon IHO S-52 and possible IMO MSC.

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Task 9 - Comprehensive Review of Test Sections



Task Leader - Joe Fogler, USA

- † Draft changes resulting from Ed. 2 CDV comments
- † Evaluate tests for redundancy
- † Evaluate grouping/location of individual tests and/or test steps
- † Related to Tasks 1, 2 & 7 (Note: Requires review by entire WG).

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Task 10 - Marine Information Objects



Task Leader - Lee Alexander , USA

- † Report on IHO-IEC MIO Harmonization Group
- † Define MIO symbology (e.g., ice info, current flow, etc.)
- † Incorporate MIO symbology into Annex E?
- † Not related to other tasks.
- † May be related to and dependent upon future standards (e.g., IHO, WMO, IALA, etc.)

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Schedule



- † October 2001 – voting closes on Ed2 FDIS
- † November 2001 – IEC 61174 ED2 published
- † Spring 2002 – TC 80 WG 7 second meeting
- † Edition 3 CDV – 2004
- † Edition 3 International Standard – 2005

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