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Global maritime distress and safety system (GMDSS) –

Part 8: Shipborne watchkeeping receivers for the reception of digital selective calling (DSC) in the maritime MF, MF/HF and VHF bands –

Operational and performance requirements, methods of testing and required test results

Système mondial de détresse et de sécurité en mer (SMDSM) –

Partie 8: Récepteurs de veille de bord pour réception d'appel sélectif numérique (ASN) dans la gamme des ondes hectométriques, hectométriques et décamétriques, et métriques –

Exigences opérationnelles et de fonctionnement, méthodes d'essai et résultats exigibles

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) –

Part 8: Shipborne watchkeeping receivers for the reception of digital selective calling (DSC) in the maritime MF, MF/HF and VHF bands –

Operational and performance requirements, methods of testing and required test results

FOREWORD

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International Standard IEC 61097-8 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

The text of this standard is based on the following documents:

FDIS	Report on voting
80/191/FDIS	80/208/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

Annexes A, B and C are for information only.

A bilingual version of this standard may be issued at a later date.

GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) –

Part 8: Shipborne watchkeeping receivers for the reception of digital selective calling (DSC) in the maritime MF, MF/HF and VHF bands –

Operational and performance requirements, methods of testing and required test results

1 Scope

This part of IEC 61097 specifies the minimum requirements for shipborne receivers intended to be connected to an external installation, including a decoder for digital selective calling (DSC), and used as receivers for watchkeeping on DSC channels on board ships operating in the maritime mobile MF, MF/HF and VHF bands allocated in the Radio Regulations of the International Telecommunication Union (ITU) to the maritime mobile service, both in connection with distress and safety communication and in connection with general communication.

These requirements include the relevant provisions of the Radio Regulations and recommendations ITU-R M.489, and ITU-R M.541, and relevant provisions of resolutions A.694, A.803, A.804 and A.806 of the International Maritime Organization (IMO).

This standard also specifies technical characteristics, methods of testing and required test results for dedicated watchkeeping receivers for use with radio installations in the GMDSS as required by chapter IV of the International Convention for Safety of Life at Sea (SOLAS) 1974, as amended, and with which IEC 60945 is associated. When a requirement in this standard differs from IEC 60945, the requirement of this standard takes precedence.

This standard covers receivers with analogue or with digital DSC signal output interfaces or with both.

DSC watchkeeping receivers can be either fixed frequency receivers or, in MF/HF bands, scanning receivers.

They may be a separate equipment or be integrated with a DSC or radiotelephone equipment.

For integrated equipment this standard specifies the requirements and methods of testing of the DSC watchkeeping receivers only. The DSC equipment or radiotelephone shall comply with the requirements of the relevant standard, for example, IEC 61097-3 [3]*, IEC 61097-7 [4] and IEC 61097-9 [5] respectively.

NOTE – All requirements of this standard resulting from the above referenced IMO resolutions or ITU recommendations are identified by quoting the number of the IMO resolution or ITU recommendation and relevant paragraph in brackets following the requirement.

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* Figures in square brackets refer to the bibliography given in annex C.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61097. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 61097 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60417:1973, *Graphical symbols for use on equipment – Index, survey and compilation of the single sheets*

IEC 60945:1996, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61162-1:1995, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 1: Single talker and multiple listeners*

ISO 3791:1976, *Office machines and data processing equipment – Keyboard layouts for numeric applications*

ITU Radio Regulations:1997, as revised

ITU-R Recommendation M.489-2:1995, *Technical characteristics of VHF radiotelephone equipment operating in the maritime mobile service in channels spaced by 25 kHz*

ITU-R Recommendation M.493-9:1997, *Digital selective-calling system for use in the maritime mobile service*

ITU-R Recommendation M.541-8:1997, *Operational procedures for the use of digital selective-calling (DSC) equipment in the maritime mobile service*

ITU-T Recommendation E.161:1993, *Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network*

ITU-R Recommendation SM.332-4:1994, *Selectivity of receivers*

ITU-T Recommendation V.11:1996, *Electrical characteristic for balanced double-current interchange circuits operating at signalling rates up to 10 Mbit/s*

International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended

IMO Resolution A.694:1991, *General requirements for shipborne radio equipment forming part of the global maritime distress and safety system and for electronic navigational aids*

IMO Resolution A.803:1995, *Performance standards for shipborne VHF radio installations capable of voice communications and digital selective calling*

IMO Resolution A.804:1995, *Performance standards for shipborne MF radio installations capable of voice communications and digital selective calling*

IMO Resolution A.806:1995, *Performance standards for shipborne MF/HF radio installations capable of voice communications, narrow-band direct-printing and digital selective calling*

ETR 028:1994, *Radio Equipment and Systems (RES) – Uncertainties in the measurement of mobile radio equipment characteristics*