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INTERNATIONAL STANDARD

Global maritime distress and safety system (GMDSS) – Part 4: Inmarsat-C ship earth station and Inmarsat enhanced group call (EGC) equipment – Operational and performance requirements, methods of testing and required test results

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IEC 61097-4:2012-05+AMD1:2016-08+AMD2:2019-06 CSV(en)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Part 4: Inmarsat-C ship earth station and Inmarsat enhanced group call (EGC) equipment – Operational and performance requirements, methods of testing and required test results

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IEC 61097-4 edition 3.2 contains the third edition (2012-05) [documents 80/659/FDIS and 80/666/RVD], its amendment 1 (2016-08) [documents 80/789/CDV and 80/808/RVC] and its amendment 2 (2019-06) [documents 80/926/FDIS and 80/929/RVD].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendments 1 and 2. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 61097-4 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This edition constitutes a technical revision. The main changes with respect to the previous edition are:

– the IMO references and requirements have been updated to the new performance standards for enhanced group call equipment adopted in 2010 as resolution MSC.306(87). The new performance standards incorporate new requirements for an indication of ship's position which has not been updated (3.4.3) and an alarm for paper low condition (3.4.7). These two requirements are, however, derived from Inmarsat documentation so there is no technical change to equipment;
– a new subclause has been added (3.7) concerning long-range identification and tracking (LRIT) to support IMO performance standards given in resolution MSC.263(84) adopted in 2008;
– references to Inmarsat documentation have been simplified by moving the content of Tables 1, 2, 4 and 5 into a new Annex C;
– the text has been editorially updated to conform to the ISO/IEC Directives.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of IEC 61097 series, published under the general title *Global maritime distress and safety system (GMDSS)*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
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- replaced by a revised edition, or
- amended.

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION to Amendment 2

NOTE This amendment adds a requirement for an interface for alert management and removes the requirement to produce a printed copy of received safety information providing there is an interface to other navigation display equipment. This results from amendments to the performance standards for enhanced group call equipment agreed by the International Maritime Organization in resolution MSC.431(98) in 2017. It can be noted that the technical provisions for the interface for the transfer of received data to other navigation display equipment were included in IEC 61097-4:2012/AMD1:2016.

GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) –

Part 4: Inmarsat-C ship earth station and Inmarsat enhanced group call (EGC) equipment – Operational and performance requirements, methods of testing and required test results

1 Scope

This part of IEC 61097 specifies the performance requirements and methods of testing for Inmarsat-C ship earth stations (SES) capable of transmitting and receiving direct-printing communications, and for enhanced group call (EGC) receivers, for use in the GMDSS and for use for long-range identification and tracking (LRIT). The available variants are:

Class 0: An EGC receiver, either stand-alone or an element of a GMDSS installation in accordance with the Inmarsat design and installation guidelines (DIGs) for GMDSS installations.

Class 1: A basic SES providing shore-to-ship and ship-to-shore message transfer only.

Class 2: As class 1 but with EGC as an alternative to shore-to-ship transfer using a shared receiver.

Class 3: As class 1 but with EGC using an independent receiver.

NOTE 1 The 34th session of the IMO Sub-Committee on Radiocommunications decided that class 2 equipment would be adequate to provide sufficient availability for the reception of maritime safety information for the GMDSS.

The standard complies with IMO performance requirements stated in the normative references, Inmarsat technical characteristics and test procedures, and IEC 60945 general requirements except where modifications are explicitly stated in this standard. Technical characteristics essential to GMDSS and LRIT operation as defined by the IMO are identified.

All text of this standard, whose wording is identical to that in IMO SOLAS Convention 1974 as amended in 1988 and Resolutions A.807(19), MSC.263(84) and MSC.306(87) is printed in *italics* and reference made to the Resolution/Recommendation and subclause number.

This standard covers equipment construction and testing. Matters relating to installation may also be found in the Inmarsat Maritime design and installation guidelines (see Bibliography). Those to be found in IMO Resolutions A.807(19), MSC.263(84) and MSC.306(87) are reproduced in Annex A.

Responsibility for type approval of Inmarsat-C and Inmarsat-EGC is vested in Inmarsat by IMO Resolutions A.807(19) and MSC.306(87) (see 3.2.1). Therefore, this standard does not reproduce Inmarsat test procedures in full, but refers to where they are given in Inmarsat documentation cited in the normative references to this standard (Annex C).

NOTE 2 For the purposes of this standard the terms Inmarsat-C, Inmarsat Standard-C, Standard-C refer to the same equipment.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60945:2002, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61108 (all parts), *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS)*

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IEC 62923-1, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 1: Operational and performance requirements, methods of testing and required test results*

IEC 62923-2, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 2: Alert and cluster identifiers and other additional features*

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