

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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FOREWORD

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IEC 61097-4 has been prepared by IEC technical committee 80: Maritime navigation and radio communication equipment and systems. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2012, Amendment 1:2016 and Amendment 2:2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the addition of a technical requirement in 5.5 for operation in the presence of an interfering signal, with associated test, resulting from new IMO performance standards given in resolution MSC.513(105).

The text of this International Standard is based on the following documents:

Draft	Report on voting
80/1102/FDIS	80/1113/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the 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 this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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.

This document 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 document. Technical characteristics essential to GMDSS and LRIT operation as defined by the IMO are identified.

All text of this document, whose wording is identical to that in IMO SOLAS Convention 1974 as amended in 1988 and Resolutions MSC.513(105), MSC.263(84) and MSC.306(87) is printed in *italics* and reference made to the resolution/Recommendation and subclause number.

This document covers equipment construction and testing. Matters relating to installation can be found in the Inmarsat Maritime design and installation guidelines (see Bibliography). Those to be found in IMO Resolutions MSC.513(105), 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 MSC.513(105) and MSC.306(87) (see 4.2.1). Therefore, this document 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 document (Annex C).

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