



National Transportation Safety Board

**Office of Marine Safety
Washington, D.C. 20594-2000
December 13, 2016**

**ATTACHMENT 18 to the METEOROLOGY GROUP FACTUAL REPORT
DCA16MM001**

International Maritime Organization's revised group standards for enhanced group call equipment.

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ANNEX 31

**RESOLUTION MSC.306(87)
(adopted on 17 May 2010)**

**REVISED PERFORMANCE STANDARDS FOR ENHANCED
GROUP CALL (EGC) EQUIPMENT**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution A.886(21), by which the Assembly resolved that the functions of adopting performance standards for radio and navigational equipment, as well as amendments thereto, should be performed by the Maritime Safety Committee on behalf of the Organization,

RECOGNIZING the need for performance standards for enhanced group call equipment in order to ensure the operational reliability of such equipment and to avoid, as far as practicable, adverse interaction between such equipment and other communication and navigation equipment aboard the ship,

HAVING CONSIDERED at its eighty-seventh session the recommendation made by the Sub-Committee on Radiocommunications and Search and Rescue, at its fourteenth session,

1. ADOPTS the Revised Performance Standards for enhanced group call equipment, the text of which is set out in the Annex to the present resolution;
2. NOTES that Annex B (System specific guidelines for Inmarsat-C) of the Inmarsat design and installation guidelines is similar to the present performance standards for enhanced group call equipment and to the performance standards for shipborne radio equipment – general requirements (resolution A.694(17));
3. INVITES Inmarsat to ensure that any amendments to Annex B (System specific guidelines for Inmarsat-C) of the Inmarsat design and installation guidelines be agreed with the Organization prior to their implementation;
4. RESOLVES to ensure that any proposed amendments to the present performance standards be agreed with IMSO prior to their adoption;
5. RECOMMENDS Governments to ensure that EGC equipment:
 - .1 if installed on or after 1 July 2012, conforms to performance standards not inferior to those specified in the annex to the present resolution; and
 - .2 if installed before 1 July 2012, conforms to performance standards not inferior to those specified in the Annex to resolution A.664(16).

ANNEX

REVISED PERFORMANCE STANDARDS FOR ENHANCED GROUP CALL (EGC) EQUIPMENT

1 INTRODUCTION

1.1 The EGC equipment to be used in the GMDSS should comply with the general requirements set out in the annex to Assembly resolution A.694(17); relevant IEC standards (IEC 61097-4 and IEC 60945) and the following minimum performance requirements.

1.2 The equipment should be capable of producing a printed copy of received information. Received EGC messages may be stored for later printing with an indication to the operator that the message has been received, except for the vital messages referred to in paragraph 3.2 which should be printed out upon receipt.

1.3 The EGC installation may be either separate or combined with other installations.¹

2 TECHNICAL REQUIREMENTS

The equipment should be type-approved by Inmarsat and should comply with the environmental conditions and electromagnetic compatibility requirements specified in IEC 60945.

3 OPERATION

3.1 The equipment should provide a visual indication that the ship's position has not been updated during the last 12 h. It should only be possible to reset this indication by revalidating the ship's position.

3.2 Means should be provided to enter the ship's position and current and planned NAVAREA/METAREA codes manually so that area group calls can be received. Means should also be provided to enter current and planned coastal warning service coverage areas and different classes of messages. Optionally, the ship's position, as determined by the navigational equipment, may be entered automatically and the NAVAREA/METAREA code automatically derived therefrom.

3.3 Provision should be made for a specific aural alarm and visual indication at the position from which the ship is normally navigated, to indicate receipt of a distress or urgency priority EGC message. It should not be possible to disable this alarm and it should only be possible to reset it manually and only from the position where the message is displayed or printed.

3.4 The equipment should indicate when it is not correctly tuned or synchronized to the EGC carrier.

3.5 Any message should be printed regardless of the character error rate of its reception. The equipment should print a low line mark if a character is received corrupted.

¹ Elements of other installations, e.g., the antenna, low noise amplifier and down-converter of the ship earth station, may be shared for the reception of EGC messages.

3.6 Acceptance or rejection of service codes² should be under the operator's control except that equipment should always receive navigational warnings, meteorological warnings and forecasts, search and rescue information and shore-to-ship distress alerts, which are directed to a fixed or absolute geographical area within which the ship is operating.

3.7 Means should be provided to prevent the re-printing of a message once it has been received without error.

3.8 The printing device should be capable of printing at least the standard International Alphabet Number 5 (IA5) character set. Other character sets are optionally used according to ISO 2022³ standards or CCITT Recommendation T.61.

3.9 The printing device should be able to print at least 40 characters per line.

3.10 The signal processor and printing device should ensure that if a word cannot be accommodated in full on one line, it should be transferred to the next line. The printing device should automatically feed five lines after completing the printed messages.

3.11 A local audible alarm should be sounded to give advanced warning of the printing device "paper low" condition. It should not be possible to confuse the sound of the "paper low" alarm with that of the distress or urgency alarm caused by the reception of a distress or urgency priority message.

4 SOURCES OF ENERGY

4.1 The EGC equipment should normally be powered from the ship's main source of electrical energy. In addition, it should be possible to operate the EGC equipment, and all other equipment necessary for its normal functioning, from an alternative source of energy.

4.2 Changing from one source of supply to another, or any interruption of up to 60 seconds' duration of the supply of electrical energy, should not require the equipment to be manually re-initialized and should not result in loss of received messages stored in the memory.

5 ANTENNA SITING

5.1 Where an omni-directional antenna is used, it is desirable that the antenna be sited in such a position that no obstacle likely to degrade significantly the performance of the equipment appears in the fore and aft directions down to -5° and in the port and starboard directions down to -15° .

5.2 Where a stabilized directive antenna is used, it is desirable that the antenna be sited in such a position that no obstacle likely to degrade significantly the performance of the equipment appears in any azimuth down to -5° .

² The meaning of the service codes is in accordance with the Recommendation ITU-R M.540-2 1990, Operational and technical characteristics for an automated direct-printing telegraph system for promulgation of navigational and meteorological warnings and urgent information to ships.

Note: ISO 2022, "Information technology – Character code structure and extension techniques" standards.

³ Note: ISO 2022, "Information technology – Character code structure and extension techniques" standards.

5.3 For omni-directional antennas, objects, especially those within 1 m of the antenna, which cause a shadow sector of greater than 2°, are likely to degrade significantly the performance of the equipment.

5.4 For directive antennas, objects, especially those within 10 m of the antenna, which cause a shadow sector of greater than 6°, are likely to degrade significantly the performance of the equipment.
