

**RESOLUTION A.663(16)**

*Adopted on 19 October 1989  
Agenda item 10*

**PERFORMANCE STANDARDS FOR INMARSAT STANDARD-C SHIP EARTH STATIONS CAPABLE OF TRANSMITTING AND RECEIVING DIRECT-PRINTING COMMUNICATIONS**

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

RECOGNIZING the need to prepare performance standards for satellite communication 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 the recommendation made by the Maritime Safety Committee at its fifty-fifth session,

1. ADOPTS the Recommendation on Performance Standards for INMARSAT Standard-C Ship Earth Stations Capable of Transmitting and Receiving Direct-Printing Communications, the text of which is set out in the Annex to the present resolution;
2. NOTES that part A of the INMARSAT draft design and installation guidelines for standard-C ship earth stations is similar to the present performance standards for INMARSAT standard-C ship earth stations and to the performance standards for shipborne radio equipment – general requirements (resolution A.569(14));
3. RECOMMENDS Member Governments to ensure that every standard-C ship earth station which will form part of the global maritime distress and safety system conforms to performance standards not inferior to those specified in the Annex to this resolution, which are in accordance with part A of the INMARSAT design and installation guidelines for standard-C ship earth stations;
4. INVITES INMARSAT to ensure that any amendments to part A of the INMARSAT design and installation guidelines for standard-C ship earth stations be agreed with the Organization prior to their implementation;
5. REQUESTS the Maritime Safety Committee to ensure that any proposed amendments to this resolution be agreed with INMARSAT prior to their consideration by the Assembly.

## ANNEX

**RECOMMENDATION ON PERFORMANCE STANDARDS FOR INMARSAT  
STANDARD-C SHIP EARTH STATIONS CAPABLE OF TRANSMITTING  
AND RECEIVING DIRECT-PRINTING COMMUNICATIONS****1 INTRODUCTION**

1.1 The INMARSAT standard-C ship earth station installation capable of transmitting and receiving direct-printing communications should comply with the general requirements set out in Assembly resolution A.569(14) and with the following minimum performance requirements.

1.2 The performance of any enhanced group call facility provided by the ship earth station should be in accordance with the performance standards for the enhanced group call equipment set out in resolution A.664(16).

**2 TECHNICAL REQUIREMENTS**

The ship earth station should be type-approved by INMARSAT and should comply with the environmental conditions specified in its technical requirements for INMARSAT standard-C ship earth stations.

**3 OPERATION**

3.1 No control external to the equipment should be available for alteration of the ship station identity.

3.2 It should be possible to initiate and make distress calls from the position from which the ship is normally navigated and from at least one other position designated for distress alerting. The means for initiating a distress call should be easy to operate and protected against inadvertent activation.

**4 RADIO FREQUENCY HAZARDS**

In order to permit a warning of potential radiation hazards to be displayed in appropriate locations, a label should be attached to the radome indicating the distances external to the radome at which radiation levels of 100 W/m<sup>2</sup>, 25 W/m<sup>2</sup> and 10 W/m<sup>2</sup> exist. However, the distances which are within a radome need not be indicated.

**5 POWER SUPPLY**

5.1 The ship earth station should normally be powered from the ship's main source of electrical energy. In addition, it should be possible to operate the ship earth station and all equipment necessary for its normal functioning, including the antenna tracking system, where provided, from an alternative source of energy.

5.2 Changing from one source of supply to another or any interruption of up to 60 s 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.

## 6 Antenna siting

6.1 Where an omnidirectional antenna is used it should, if practicable, 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  $-5^\circ$  and in the port and starboard directions down to  $-15^\circ$ . For omnidirectional antennas, objects, especially those within 1 m of the antenna, which cause a shadow sector of greater than  $2^\circ$ , are likely to degrade significantly the performance of the equipment.

6.2 Where a stabilized directive antenna is used it should, if practicable, be sited in such a position that no obstacle, likely to degrade significantly the performance of the equipment, appears in any azimuth down to  $-5^\circ$ . For directive antennas with a gain of approximately 20 dB, objects, especially those within 10 m of the antenna, which cause a shadow sector of greater than  $6^\circ$ , are likely to degrade significantly the performance of the equipment.

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**PERFORMANCE STANDARDS FOR ENHANCED GROUP CALL EQUIPMENT**

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

RECOGNIZING the need to prepare 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 the recommendation made by the Maritime Safety Committee at its fifty-fifth session,

1. ADOPTS the Recommendation on Performance Standards for Enhanced Group Call Equipment, the text of which is set out in the Annex to the present resolution;
2. NOTES that part A of the INMARSAT design and installation guidelines for enhanced group call equipment 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.569(14));
3. RECOMMENDS Member Governments to ensure that every enhanced group call equipment which will form part of the global maritime distress and safety system conforms to performance standards not inferior to those specified in the Annex to this resolution, which are in accordance with part A of the INMARSAT design and installation guidelines for enhanced group call equipment;
4. INVITES INMARSAT to ensure that any amendments to part A of the INMARSAT design and installation guidelines for enhanced group call equipment be agreed with the Organization prior to their implementation;
5. REQUESTS the Maritime Safety Committee to ensure that any proposed amendments to this resolution be agreed with INMARSAT prior to their consideration by the Assembly.