



SLOVENSKI STANDARD

SIST ETS 300 372:1999

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Radio Equipment and Systems (RES); Technical characteristics and methods of measurement for maritime float-free satellite Emergency Position Indicating Radio Beacon (EPIRB) operating in the 1,6 GHz band through geostationary satellites

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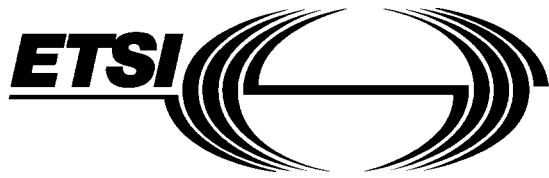
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Foreword

This European Telecommunication Standard (ETS) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Transposition dates	
Date of adoption of this ETS:	31 May 1996
Date of latest announcement of this ETS (doa):	31 August 1996
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	29 February 1997
Date of withdrawal of any conflicting National Standard (dow):	29 February 1997

Every ETS prepared by ETSI is a voluntary standard. This ETS contains text concerning conformance testing of the equipment to which it relates. This text should be considered only as guidance and does not make this ETS mandatory.

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1 Scope

This European Telecommunication Standard ETS specifies the minimum performance requirements, technical characteristics and conformance testing requirements of a satellite Emergency Position Indicating Radio Beacon (EPIRB) operating in the Inmarsat geostationary satellite system as described in Regulation IV subclause 7.1.6 of the 1988 amendments to the 1974 International Convention for Safety of Life at Sea (SOLAS) [2].

The requirements of this ETS are in addition to the requirements of Inmarsat-E System Definition Manual [11].

This ETS comprises the relevant requirements of the Radio Regulations [1], International Maritime Organisation (IMO) Resolutions A.658(16) [3], A.661(16) [4], A.662(16) [5], A.689(17) [6], A.694(17) [7], A.702(17) [8], ITU-R Recommendation M.632-2 [9], and Regulation IV-7.1.6 of the 1988 amendments to the 1974 SOLAS Convention [2].

This ETS covers the following categories of satellite EPIRBs and release mechanism:

- satellite EPIRB with position updating from the ship's navigational installation and with an integral 9 GHz radar transponder;
- satellite EPIRB with position updating from an integral facility for automatic position updating;
- additionally, the satellite EPIRB may include a 121,5 MHz homing transmitter.

To further meet the requirements of Regulation IV subclauses 10.1.4.3 and 10.2.3.2.2 of the 1988 amendments to the 1974 SOLAS Convention [2], with regard to remote activation for both categories, an additional remote control unit for remote activation and for feeding the satellite EPIRB with "nature of distress" information is specified.

2 Normative references

This European Telecommunication Standard ETS incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate place in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] International Telecommunication Union: "Radio Regulations".
- [2] International Convention for Safety Of Life At Sea Convention (SOLAS) (1974), as amended 1988 (GMDSS).
- [3] IMO Resolution A.658(16): "Use and fitting of retro-reflective materials on life-saving appliances".
- [4] IMO Resolution A.661(16): "Performance for float free satellite emergency position-indicating radio beacons operating through the geostationary INMARSAT satellite system on 1,6 GHz".
- [5] IMO Resolution A.662(16): "Performance standards for float free release and activation arrangements for emergency radio equipment".
- [6] IMO Resolution A.689(17): "Testing of life-saving appliances".
- [7] IMO Resolution A.694(17): "General requirements for ship borne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for electronic navigational aids".
- [8] IMO Resolution A.702(17): "Radio maintenance guidelines for the Global Maritime Distress and Safety System (GMDSS) related to sea areas A3 and A4".

- [9] ITU-R Recommendation M.632-2: "Transmission characteristics of a satellite emergency position-indicating radiobeacon (satellite EPIRB) system operating through geostationary satellites in the 1,6 GHz band".
- [10] ISO Recommendation 694: Method B.
- [11] Inmarsat-E System Definition Manual.
- [12] ETR 028: "Radio Equipment and Systems (RES); Uncertainties in the measurement of mobile radio equipment characteristics".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply:

satellite EPIRB: Earth station in the Mobile Satellite Service (MSS) the emissions of which are intended to facilitate Search and Rescue (SAR) operations.

remote control unit: A unit which allows the satellite EPIRB, while mounted in the release mechanism, to be activated from a position other than its installation point.

release mechanism: A fixture which allows the satellite EPIRB to float free automatically.

equipment: A satellite EPIRB, its release mechanism and the remote control unit.

internally mounted equipment: Units of the equipment, e.g. remote control unit, intended for internal (inside) mounting.

externally mounted equipment: Units of the equipment intended for external (outside) mounting.

3.2 Abbreviations

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For the purposes of this ETS, the following abbreviations apply:

eirp	effective isotropically radiated power
EPIRB	Emergency Position Indicating Radio Beacon
FSK	Frequency Shift Keying
GMDSS	Global Maritime Distress and Safety System
IMO	International Maritime Organisation
Inmarsat	International Mobile Satellite Organization
MSS	Mobile Satellite Service
MMSI	Maritime Mobile Station Identity
nm	nautical mile
PERP	Peak Effective Radiated Power
RHCP	Right Hand Circular Polarised
SAR	Search and Rescue
SART	Search and Rescue Radar Transponder
SOLAS	International Convention for Safety of Life at Sea

4 General requirements

4.1 Scope

The manufacturer shall declare that compliance to the requirements of clause 4 is achieved and shall provide relevant documentation.