

Recommendation ITU-R M.633-5

(11/2023)

M Series: Mobile, radiodetermination, amateur and related satellite services

Transmission characteristics of a satellite emergency position-indicating radio beacon (satellite EPIRB) operating through a satellite system in the 406.0-406.1 MHz band

Foreword

The role of the Radiocommunication Sector is to ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including satellite services, and carry out studies without limit of frequency range on the basis of which Recommendations are adopted.

The regulatory and policy functions of the Radiocommunication Sector are performed by World and Regional Radiocommunication Conferences and Radiocommunication Assemblies supported by Study Groups.

Policy on Intellectual Property Right (IPR)

ITU-R policy on IPR is described in the Common Patent Policy for ITU-T/ITU-R/ISO/IEC referenced in Resolution ITU-R 1. Forms to be used for the submission of patent statements and licensing declarations by patent holders are available from <http://www.itu.int/ITU-R/go/patents/en> where the Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC and the ITU-R patent information database can also be found.

Series of ITU-R Recommendations

(Also available online at <https://www.itu.int/publ/R-REC/en>)

Series	Title
BO	Satellite delivery
BR	Recording for production, archival and play-out; film for television
BS	Broadcasting service (sound)
BT	Broadcasting service (television)
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M	Mobile, radiodetermination, amateur and related satellite services
P	Radiowave propagation
RA	Radio astronomy
RS	Remote sensing systems
S	Fixed-satellite service
SA	Space applications and meteorology
SF	Frequency sharing and coordination between fixed-satellite and fixed service systems
SM	Spectrum management
SNG	Satellite news gathering
TF	Time signals and frequency standards emissions
V	Vocabulary and related subjects

Note: This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.

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RECOMMENDATION ITU-R M.633-5*

Transmission characteristics of a satellite emergency position-indicating radio beacon (satellite EPIRB) operating through a satellite system in the 406.0-406.1 MHz band

(1986-1990-2000-2004-2010-2023)

Scope

This Recommendation provides transmission characteristics of a satellite emergency position-indicating radio beacon system (satellite EPIRBs) operating in the 406.0-406.1 MHz band.

Keywords

Satellite, EPIRB, beacon

Abbreviations/Glossary

SOLAS	Safety of Life at Sea
EPIRB	Emergency position-indicating radio beacon
ELT	Emergency locator transmitter
PLB	Personal locator beacon

Related ITU Recommendations, Reports

Recommendation ITU-R M.1478 – Protection criteria for Cospas-Sarsat search and rescue instruments in the band 406-406.1 MHz

Report ITU-R M.2359 – Protection of the 406-406.1 MHz band

The ITU Radiocommunication Assembly,

considering

- a) that satellite EPIRBs can be used for distress alerting in the maritime, land and aeronautical environments;
- b) that satellite EPIRBs with similar transmission characteristics (but other design differences) may be employed in diverse operating environments (where they may be known as EPIRBs in the maritime environment, emergency locator transmitters (ELTs) in the aviation environment, and personal locator beacons (PLBs) when designed for being carried on a person);
- c) that satellite EPIRBs are one of the prime distress-alerting means in the Global Maritime Distress and Safety System (GMDSS) of the International Maritime Organization (IMO);
- d) that all ships to which Chapter IV of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, applies, are required to carry a satellite EPIRB operating in the 406.0-406.1 MHz band;

* This Recommendation should be brought to the attention of the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO), the International Mobile Satellite Organization (IMSO) and the Cospas-Sarsat Secretariat.

e) that all aeroplanes and helicopters for which Parts I, II and III of Annex 6 of the Convention on International Civil Aviation apply, are required to carry at least one satellite EPIRB operating in the 406.0-406.1 MHz band (referred to as ELT in the ICAO documentation),

noting

a) the current and planned availability of operational Cospas-Sarsat satellites in orbit;

b) the current and projected availability of the Cospas-Sarsat ground system,

recommends

that the transmission characteristics and data formats for a satellite EPIRB operating through a satellite system in the 406.0-406.1 MHz band should be in accordance with either the Specification for Cospas-Sarsat 406 MHz Distress Beacons, as provided in Cospas-Sarsat document C/S T.001, as amended, or the Specification for Second-Generation Cospas-Sarsat 406 MHz Distress Beacons, as provided in Cospas-Sarsat document C/S T.018, as amended.

NOTE 1 – A copy of the latest version of amended documents C/S T.001 and/or C/S T.018 can be obtained free of charge from the Cospas-Sarsat Secretariat (mail@cospas-sarsat.int) or the Cospas-Sarsat website (<http://www.cospas-sarsat.int>).
