



Rev. 0

**REPUBLIC of SAN MARINO
MARITIME AUTHORITY**

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San Marino Policy Letter

SMPL – 2022-TEC-012

09 November 2022

San Marino Ship Register SMSR

**Emergency Position Indicating Radio Beacon
(EPIRB) Provisions for Management**

TO: Recognised Organisations, Shipowners, Managers, Masters, Seafarers, SMSR partners, SMSR brokers, Surveyors, and the general public.

Rev. n	Date	Changes	Initials
0	09/11/2022	n/a	nc

1. INTRODUCTION

1.1 General information and definitions

The Emergency Position Indicating Radio Beacon (EPIRB) is a device to alert search and rescue services (SAR) in case of an emergency out at sea. It is a tracking equipment that transmits a signal on a specified band to locate a lifeboat, life raft, ship or people in distress.

AN EPIRB is a SECONDARY means of DISTRESS alerting which is to say that it comes later in the hierarchy of alerting SAR authorities in case of distress.

An EPIRB transmits signals to satellites. The signal consists of an encrypted identification number (all in digital code) which holds information such as the ship's identification, date of the event, the nature of distress and chiefly, the position.

A UIN is a Unique Identifier Number that is programmed into each beacon at the factory. The UIN number consists of 15 digit series of letters and numbers that make up the unique identity of the beacon. The UIN is on a white label on the exterior of the beacon. The UIN is also referred to as the Hex ID.

The EPIRB needs to be activated to emit signals. This could be done by pushing a button on the unit, or it could happen automatically if and when it comes in contact with water.

The latter variety is known as hydrostatic EPIRB; the quality makes hydrostatic EPIRBs the best choice for sailors because they could be automatically activated in case the ship or vessel meets an accident and finds itself in deep waters.

The point to be kept in mind is that EPIRB needs activation to be operative, and this could happen only when it emerges from the bracket it is placed in. This could be done manually, or it could happen automatically, as said earlier. The device is essentially battery-operated. This helps because power is the first entity to be affected in case of a calamity.

The Epirb operates on the frequencies of 406 MHz (digital signal) and 121.5 MHz (analogue signal used for radio goniometric search).

The EPIRB maintenance and testing procedures are beyond the scope of this document.

1.2 The Cospas-Sarsat system (<https://www.cospas-sarsat.int/en/>)

The Cospas-Sarsat system is an international satellite system designed to support the search and rescue services. The scope of the system is to give real time information about the position of the lifeboat, life raft, ship or people in distress.

San Marino adopts the standard defined by the Cospas-Sarsat system.

The system consists of three elements: EPIRB (as described at paragraph 1.1), satellites and satellite receiving units or ground stations.

In case of activation the signal emitted by the EPIRB is received by the satellites LEO and GEO (Low Earth Orbit and Geostationary Earth Orbit). The satellites are equipped with transmitters that send the distress signal to the earth stations or LUT (Local Use terminal).

The LUT calculates the position of the casualty using Doppler Shift (is the change in frequency or wavelength of a wave (or other periodic events) for an observer moving relative to its source).

The LUT passes on the message to the MRCC (Mission Rescue Co-Ordination Centre). Furthermore, the MRCC is responsible for the SAR ops and oversees the execution of the rescue mission.

2 PROCEDURE

The provisions contained in this policy letter apply both to the ships where the equipment is mandatory and to those ships where the equipment is not mandatory and then adopted on voluntary basis.

The respect of the provisions contained herein grants the effectiveness of the SAR services avoiding ambiguities between the distress signal and the ship involved.

2.1 Programming

Upon purchase, the EPIRB must be programmed with the following criteria:

Country code (268) + Location Protocol: Standard Location (MMSI)

The configuration generates the 15 digits Hex Id.

The configuration is carried out by the maker, generally through its service network or authorized dealers.

2.2 Registration

The 15 digits Hex Id. must be communicated to the San Marino Authority by sending the Annex 1 module to the email address: flagstate@smsr.sm

The EPIRB will be registered in the Cospas-Sarsat database thus guaranteeing all the capabilities of the system.

2.3 False Alerting

It is possible that the EPIRB might get activated by mistake by an individual onboard. In order to prevent a chain of SAR operations in motion, it is imperative that the EPIRB false transmission is cancelled. In case the EPIRB is falsely activated, the nearest coast station or RCC (Rescue Co-Ordination Center) must be informed immediately of this event and as mentioned, cancel it. The cancellation request must also be sent to this Administration.

1. VESSEL DETAILS													
Vessel Name:													
Official Registration No.:													
Call Sign:													
MMSI:													
Vessel Type:													
Model (if applicable):													
Color:													
2. EPIRB INFORMATION													
15bit Hex CODE:													
EPIRB:						Battery Expiry Date:							
Manufacturer:						Model No.:							
Location ON THE BOAT						EPIRB Serial No.:							
COSPAS-SARSAT Beacon Type Approval Certificate (CSTA) number:													
Address of Supplier													
Telephone No.:													
3. OWNER DATA													
Name													
Address													
Phone.:		Phone						Mobile					
Email:													
4. EMERGENCY CONTACT INFORMATION													
Primary 24-Hour Contact Name:													
Telephone No.:		Work:						Mobile:					
Secondary 24-Hour Contact Name:													
Telephone No.:		Work:						Mobile:					
5. SAN MARINO MARITIME AUTHORITY USE ONLY													
Received:						CSTA #:							
SN:						Database updated by:							