

BRAZIL**1. REGULATIONS****1.1 General**

All 406 MHz beacons carried by Brazilian ships and aircraft must be registered at BRMCC. There is a national database for ELTs, EPIRBs and PLBs maintained by BRMCC.

1.2 EPIRBs

All Brazilian SOLAS ships have to carry 406 MHz EPIRBs. Voluntary carriage of 406 MHz EPIRBs is permitted on Brazilian non-SOLAS ships.

1.3 ELTs

According to regulations of the National Civil Aviation Agency of Brazil, since 1 January 2009, all ELTs installed on aircraft registered in Brazil must operate on the 406 MHz frequency with auxiliary radio-locating device on the 121.5 MHz frequency.

1.4 PLBs

The private use of PLBs is permitted in Brazil as part of a survival kit for aircraft. This condition must be mentioned in the PLB 406 MHz Registration Form. All PLBs must be registered in the national beacon database at BRMCC; 406 MHz PLBs manufacturers or distributors shall attach folders on the equipment concerning the registry obligation. Other uses depend on a special agreement with the BRMCC.

The SAR national agency issued an Aeronautical Information Circular (AIC13 N/2011) permitting the use of PLB onboard of ultralight aircraft since registration is made in the BRMCC.

1.4.1 National Beacon Regulations for Serial-Coded PLBs

Administration	For Terrestrial Applications	In Maritime Environment	On Aircraft	Comments
	Country Recognises PLB Activations	Country Recognises PLB Activations	Country Recognises PLB Activations	
Brazil	Y	Y	Y	PLB activation is allowed. However, only PLB registered in Brazilian database for ultralight airplanes or as part of an aircraft/ship survival kit will trigger the Brazilian SAR System. Activations other than mentioned above will be informed to regional Civil Defense offices.

Similar information is available in the new table on the Cospas-Sarsat website (www.cospas-sarsat.int) with the status indication in colors (Y = green, allows / N = red, not allowed / Restrictions = amber (see comments) and with the note that the national beacon regulations can be found on the Cospas-Sarsat website in document C/S S.007).

2. BEACONS CODING METHODS

2.1 EPIRB Coding Methods

Country Code	USER PROTOCOLS				LOCATION PROTOCOLS								
	Maritime User		Serial User	Radio Call Sign	User Location			Standard Location		National Location		RLS (Return Link Service)	
	MMSI	Radio Call Sign	TAC & S/N	Radio Call Sign	MMSI	TAC & S/N	Radio Call Sign	MMSI	TAC & S/N	Serial Number Assigned by Competent Administration	National RLS Number	TAC & S/N	
710	Y	N	Y	N	N	N	N	Y	Y	N	/Y/N	Y	

2.2 ELT Coding Methods

Country Code	USER PROTOCOLS				LOCATION PROTOCOLS									
	Serial User			Aviation User	User Location				Standard Location			National Location	RLS (Return Link Service)	
	TAC & S/N	Aircraft Operator Designator and Serial Number	Aircraft 24-bit Address	Aircraft Nationality and Registration Marking	TAC & S/N	Aircraft Operator Designator and Serial Number	Aircraft 24-bit Address	Aircraft Nationality and Registration Marking	TAC & S/N	Aircraft Operator Designator and Serial Number	Aircraft 24-bit Address	Serial Number Assigned by Competent Administration	National RLS Number	TAC & S/N
710	Y	N	Y	Y	N	N	N	N	Y	N	Y	N	/Y/N	Y

2.3 PLB Coding Methods

Country Code	USER PROTOCOLS		LOCATION PROTOCOLS						RLS (Return Link Service)			
	Serial User		User Location		Standard Location		National Location					
	TAC & S/N		TAC & S/N				Serial Number Assigned by Competent Administration		National RLS Number	TAC & S/N		
710	Y		Y				N		/Y/N	Y		

3. LIST OF BEACON MODELS TYPE APPROVED BY ADMINISTRATION

Not available.

4. BEACON TESTING REGULATION

The Cospas-Sarsat 406 MHz distress beacons should only be activated when a vessel, an aircraft or a person are in distress, i.e., in severe and imminent danger and requiring immediate assistance. However, to ensure that the beacons are working properly, they can be activated for testing or training purposes. To achieve this goal, it is emphasized that the users should perform the self-test mode without causing harmful impact to the search and rescue (SAR) system. On the other hand, when these beacons are being tested in operational mode they can bring on harmful impacts to the SAR system. The following harmful impacts can be highlighted:

- impact to aviation, increasing the amount of messages between pilots and Air Traffic Control;
- impact to the Rescue Coordination Centres (RCCs), increasing the delays in attending real emergencies;
- SAR resources tasked unnecessarily;
- SAR crews put at risk unnecessarily; and
- increase in SAR budget.

Given the above harmful impacts, the testing of beacons in operational mode must be controlled and performed when absolutely necessary. Therefore, when requested by beacon users and approved by national SAR administration, BRMCC will coordinate beacons activation for testing or training purposes. Thus, the following procedures shall be observed:

- ELT, EPIRB and PLB can be tested anytime using the self-test mode. There is no need to notify BRMCC (check the manufacturer's instructions for performing the self-test, as well as for interpreting the test results);
- ELT, EPIRB and PLB can be tested in operational mode within the first five minutes of the hour, provided the following instructions are observed:
 - test of four beacons or less: the user must contact BRMCC at least 24 hours in advance of the time scheduled to perform the test;
 - test of more than four beacons: the user must contact BRMCC at least thirty days in advance of the day scheduled to perform the test;
 - the user shall ensure that the beacons to be tested are registered in BRMCC database;
 - in all cases, the user shall provide the following information:
 - test purpose,
 - test description,
 - test location,
 - test date, time and duration,
 - beacon HEX ID,
 - point of contact.

Remarks:

- The most common reason for testing an emergency beacon is to ensure that it is operating properly and producing the reliable RF signal. To achieve this without causing the above mentioned harmful impacts, there is a self-test mode in ELT, EPIRB and PLB.
- When the beacon is turned on in the self-test mode, usually, there are lights and/or sounds that indicate proper beacon operation. In the self-test mode, the beacon radiates an encoded message which will be ignored by the Cospas-Sarsat System, and the 121.5 MHz signal will be transmitted during one second or less, assuring that the SAR system will not be alerted.

- When in operational mode, preferably perform the ELT test inside hangars. Do not perform the test in remote regions where there are no easy communications, such as farm strips.
- When in operational mode, the duration of the test shall be limited to 5 seconds in order to minimize the possibility of generating a false alert.
- Art. 58 of the Brazilian Aeronautical Code establishes that "Whoever, by recklessness, negligence or transgression, causes unnecessary movement of SAR resources will be required to reimburse the Brazilian Federal Administration, even if there were no danger to life or request for help."

5. POINT OF CONTACT FOR BEACON MATTERS (CODING, REGISTRATION AND TYPE APPROVAL)

The point of contact for beacon matters is CINDACTA1 / BRMCC.

Updated point of contact details for administrations are available at:
<https://www.cospas-sarsat.int/en/contacts-pro/contacts-details-all>.

6. BEACON REGISTRATION FORMS

Online beacon registration forms (EPIRBs, ELTs, PLBs) are available at:
<https://infosar.decea.gov.br/>.

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