LIECHTENSTEIN

1. REGULATIONS

- ELT: Emergency Locator Transmitter
- ELT(DT): Emergency Locator Transmitter for Distress Tracking,
- EPIRB: Emergency Position Indicating Radio-Beacon,
- FGB: First-Generation Beacon (technology based on documents C/S T.001 and C/S T.007)
- LADR: Location of an Aircraft in Distress Repository,
- MMSI: Maritime Mobile Service Identity,
- PLB: Personal Locator Beacon,
- RLS: Return Link Service,
- S/N: Serial Number of the device,
- SGB: Second-Generation Beacon (technology based on documents C/S T.018 and C/S T.021)
- TAC : Cospas-Sarsat Type-Approval Certificate number.

1.1 General

(Liechtenstein beacon regulation is handled by the Swiss Administration.)

1.2 EPIRBs

Not available.

1.3 ELTs

(From Switzerland beacon regulations.) Mandatory carriage of 406 MHz ELTs for all aircraft (except sailplanes, historic and homebuilt aircraft and balloons) introduced on 8 April 2012 in accordance with the ICAO Convention on International Civil Aviation, Annex 6, Part II.

1.4 PLBs

Liechtenstein is authorizing the use of PLBs on Liechtenstein territory for all purposes.

PLBs must be registered by the owner within the IBRD at:
https://www.406registration.com/.

1.4.1 National Beacon Regulations for Serial-Coded PLBs

Country / Territory	The country recognizes PLB activations as potentially indicating a distress situation:			Comments
	For Terrestrial Applications	In Maritime Environment	On Aircraft	
Switzerland	R	Y	Y	**Note**: Terrestrial alerts are relayed to Police. Appropriate SAR action cannot be guaranteed as no legislation and no formal responsibilities/procedures are available. A mobile telephone, emergency radio network access, emergency telephone or satellite telephone are more suitable for raising the alarm in an emergency for some circumstances.

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 / **R**estrictions = 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	RLS MMSI
252	Y	N	N	N	Y	N	N	Y	N	N	N	N	Y

The following warning is provided to beacon manufacturers and beacon owners as general guidance:

WARNING:

Note regarding maritime protocols that use MMSI as the vessel identifier:

The international Cospas-Sarsat Programme has become aware of the existence of EPIRBs coded in accordance with ITU-R Recommendation M.585 but mistakenly using the "pseudo country codes" "**111", "970", "972", "974", or "979**" extracted from AIS identifiers instead of the actual appropriate country code (MID) allocated by Cospas-Sarsat and the ITU.

A distress message from a beacon coded in this way would be treated as "invalid" upon receipt by the Cospas-Sarsat System and would either be rejected or subjected to exception processing.

No 406-MHz EPIRB should be coded in this manner.

The Country Code for all 406 MHz beacons must be a valid three-digit number assigned by Cospas-Sarsat and the ITU to an Administration (MID), in the range between 200 and 780.

However, following the recent update of the Cospas-Sarsat Ground Segment, exceptions to the use of regular Country Codes assigned by Cospas-Sarsat and the ITU are possible in order to code 406 MHz EPIRBs on board crafts associated with a parent vessel using a "pseudo-country code" in the range "982" to "987" with one of the Maritime MMSI protocols (see ITU-R M585).

2.2 ELT Coding Methods

2.2.1 ELTs

(This subsection does not include FGB ELT(DT) coding methods.)

Country Code	USER PROTOCOLS				LOCATION PROTOCOLS									
	Serial User			Aviation User	User Location				Standard Location			Aviation User	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
252	Y	N	Y	Y	Y	N	Y	Y	Y	N	Y	N	N	Y

2.2.2 ELT(DT)s

a) FGB ELT(DT)s

Country Code	LOCATION PROTOCOLS		
	ELT(DT) Location		
	TAC & Serial Number [1]	Aircraft Operator Designator and Serial Number [1]	Aircraft 24-bit Address [2]
252	N	N	Y

Notes:

(1) This protocol does not provide an 'Aircraft Identification' as required by ICAO for populating the LADR.

(2) This protocol provides an 'Aircraft Identification', and an 'Aircraft Operator Identity' only when the Aircraft Operator Designator (3LD) is included in the rotating PDF-2 field, as required by ICAO for populating the LADR. Default 3LD values should be "ZGA".

a) SGB ELT(DT)s

Country Code	SGB CODING OPTIONS		
	SGB ELT(DT)		
	Aircraft Registration Markings [1] (Vessel ID #3)	Aircraft 24-bit Address [2] (Vessel ID #4)	Aircraft Operator Designator and Serial Number [3] Vessel ID #5)
252	N	Y	N

Notes:

(1) This option does not provide an Aircraft Operator Designator (3LD) which is required by ICAO for populating the LADR.

(2) This option provides an 'Aircraft Identification', and an 'Aircraft Operator Identity' only when the Aircraft Operator Designator (3LD) is also included, as required by ICAO for populating the LADR. Default 3LD values should be "ZGA".

(3) This option does not provide an 'Aircraft Identification' which is required by ICAO for populating the LADR.

2.3 PLB Coding Methods

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

Notes: PLBs which are used on aircraft in accordance to EASA NCO must be coded as ELT.

2.4 Return Link Serv ice (RLS) Protocols

On 10 January 2020, Switzerland, on behalf of Liechtenstein notified the Cospas-Sarsat Programme of the implementation of proactive handling of RLS-protocol distress alert messages, and authorization for return-link-service-capable beacons to be coded with its national country code.

The Cospas-Sarsat Council declared effective 26 March 2021 the Return Link Service (RLS) at Full Operational Capability (FOC) within Cospas-Sarsat.

In March 2022, the Cospas-Sarsat Council decided to approve the operational use of RLS FGBs coded with MMSI.

3. LIST OF BEACON MODELS TYPE APPROVED BY ADMINISTRATION

ELT's have to fulfill the requirements of TSO-C126 / JTSO-2C126. The relevant technical requirements are laid down in the documents DO-182 / DO-204 of the RTCA and ED.62 of the EUROCAE.

The Federal Office for Civil Aviation Switzerland, on behalf of Liechtenstein, accepts and validates approvals of ELTs, which have an approval from the relevant authority of the country of the manufacturer or which hold an approval issued by the JAA according JAR21 based on TSO or JTSO. All ELTs require Cospas-Sarsat type approval and need to transmit in the 406 MHz band.

4. BEACON TESTING REGULATION

See Switzerland.

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

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

6. BEACON REGISTRATION

Based on the agreement between Switzerland and Liechtenstein dated 27 January 2003 (SR 0.748.095.14) and as published in the Swiss AIP, Switzerland operates a national beacon registry for beacons encoded with country code 269 and **252 (Liechtenstein)** for ELTs.

EPIRBs and PLBs coded with country code **252 (Lichtenstein)** are to be directly registered in the International Beacon Registration Database (IBRD) by individuals.

- END OF SECTION -