
PAPUA NEW GUINEA

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406 MHz BEACONS REGISTRATION AND CODING PROTOCOLS

1 - INTRODUCTION

1.1 - This AIC is to advise inform the industry of the requirements necessary to properly register 406MHz ELT beacons. AIC number 3/1994, dated 10 November was previously issued relating to the possible changeover of the distress frequency 121.5MHz Beacons.

1.2 – This AIC is intended to inform the industry of the 406MHz beacon system currently being used to assist in SAR.

1.3 – Cospas – Sarsat is an international, humanitarian search and rescue system that uses satellites to detect and locate emergency beacons carried by aircraft, ships or individuals. The system consists of network of satellites, ground stations, mission control centres and rescue coordination centres.

1.4 – When an emergency beacon is activated, the signal is received by a satellite and relayed to the nearest available ground station. The ground station, called a Local User Terminal processes the signal and calculates the position from which it originated. This position is transmitted to a mission control centre where it is joined with identification data and other information on that beacon.

1.5 – The Cospas – Sarsat Satellite System provides distress alert and location information to search and rescue (SAR) service anywhere in the world, for maritime, aviation and land users in distress. Based on this information and other data held by RCC, the operator can be contacted immediately to ascertain the circumstances surrounding it's activation.

1.6 – Cospas – Sarsat System can process signals from two types of distress beacons, 406 MHz beacons specifically designed to operate in the Cospas – Sarsat System, and distress beacons operating on 121.5MHz mostly carried on board aircraft since the seventies.

1.7 – The Cospas – Sarsat 406MHz systems provides numerous advantages over the 121.5MHz system in greater Doppler positioning accuracy, Beacon identification and Global coverage etc.

2 – IMPEMENTATION

2.1 – Due to the high level of false alerts from 121.5MHz beacons, and the difficulty of improving the performance of this outdated system, and on request from ICAO and IMO, Cospas – Sarsat Council decided to plan and prepare for the termination of 121.5MHz satellite processing of p1 February 2009.

2.1 – The Cospas – Sarsat Satellite system will discontinue monitoring of 121.5MHz on 01 February 2009. Therefore it is expected that 121.5MHz ELT's will not be detected by Cospas – Sarsat Satellite beyond that date. However, continued use of 121.5MHz would mainly rely on overflight monitoring by aircraft.

3 – REGISTRATION.

3.1 – In order to provide an immediate response to a 406 MHz Distress alert, rescue coordination centres need to obtain, detailed information on the aircraft, vessel, or individua in distress. Such information can be obtained from 406 MHz beacons and only if the 406 MHz Beacon has been correctly registered with the responsible national authority or SAR Point of Contact (SPOC – RCC). RCC Jacksons Airport is the nominated SAR Point of Contact for all 406MHz beacons used in PNG.

3.2 – A 406MHz Beacon Registration Database is established by the Port Moresby Rescue Coordination Centre (RCC) at Jacksons Airport for SAR purpose. All 406MHz beacons purchased form overseas agents must be registered on proper forms which can be accessed on the Australian Maritime Safety Authority Website. Registration Forms shall be forwarded to the address or faxed to numbers indicated below. Forms can also be obtained from the Rescue Coordination Centre, Jacksons Airport.

Rescue Coordination Centre
Civil Aviation Authority of PNG
P.O.BOX 684,
BOROKO, NCD
Papua New Guinea

Phone : (675) 235 6885
Fax : (675) 325 4094 or (675) 325 0749

4. CODING IDENTIFICATION AND USER PROTOCOLS.

4.1 – It is also important that Beacons are assigned a unique code with the PNG country code (553 PNG) and user protocols to assist in identification. The following shall be used as a guideline for coding purposes:-

(a)	Country code	:	xxx
	User	:	Aviation
	Reg no	:	yyyy
	Serial Number	:	uuuuuu
	Homing Dev	:	zzzzzzzz

xxx is the country code which is 553.
yyyy is the aircraft registration number.
uuuuuu is the Beacon Serial number.
zzzzzzzz is the auxiliary radio locating device type

(b) PERSONAL (PLB)

	Country code	:	xxx
	User Protocol Code	:	yyyy

xxx is the country code which is 553.
yyyy is the beacon's serial number.

5- CANCELLATION

5.1 – This AIC will remain current until further notice.

DISTRIBUTION: Normal

CURRENT AIC:

1985:	5, 8
1991:	6
1993:	4, 5
1994:	1, 3
1996:	4
1997:	6, 7, 9, 11
1998:	1
2000:	3
2001:	2
2002:	1
2003:	1
2004:	1

APPENDIX:

- 1) 406MHz distress beacon registration.
- 2) 406MHz distress beacon registration form.



406 MHz Distress Beacon Registration

This form is to be used for registering 406MHz Distress Beacons that are coded with the Papua New Guinea.

If you have a beacon coded with a foreign country code, or if you do not know what country Code has been used, then you will need advice, please contact the RCC Jacksons Field.

Civil Aviation Authority
Papua New Guinea
PO Box 684, BOROKO, NCD 111
Jacksons International Airport
Papua New Guinea
Phone: (675) 325 0749
Fax: (675) 324 4635

Information contained in this form is critical to your safety and to successful search and rescue (SAR) response:

- You may use this form to register a maritime distress beacons (EPIRB), an aviation distress beacon (ELT) or a personal distress beacon (PLB).
- When entering information, you must include details in the following sections:
 - Distress Beacon details;
 - Type of Beacon;
 - Owner/Operator details;
 - 24 Hour Emergency contact details; and
 - Vessel or aircraft details as applicable.

Definitions

ELT - Emergency Locator Transmitters are distress beacons that are fixed in aircraft.

EPIRB - Emergency Position-Indicating Radio Beacons are for maritime use and designed to float upright in water.

PLB - Personal Locator Beacons may be used as personal distress beacons in all environments. They are not designed to float upright in water but may be carried to supplement a vessel's EPIRB.



406MHz Distress Beacons Registration (PNG coded beacons only)

Reason for registration

- New registration
- Updated information (e.g. Change of address)
- Replacement of beacons

↓
Give reasons

Distress beacon details

15 character unique identification (hexadecimal ident.)

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Make _____ Model _____

Type Approval Certificate (TAC) number (if known)

Beacon Serial No.

Owner/Operator details

Name

Postal address

Home Telephone No.
 () _____

Work Telephone No.
 () _____

Fax No.
 () _____

Mobile /other phone No.

Email address

24 Hour Contact

If possible, please supply 3 names; one of who must be contactable at all times; these people will be contact if the beacon is activated.

Name 1

Home Telephone No.
 () _____

Work Telephone No.
 () _____

Mobile No.

Name 2

Home Telephone No.
 () _____

Work Telephone No.
 () _____

Mobile No.

Name 3

Home Telephone No.
 () _____

Work Telephone No.
 () _____

Mobile No.

Type of Beacon

- EPIRB ELT PLB

↓
 Manually activated
 Automatically activated
 How many other beacons are fitted to the vessel/aircraft?

Use of Beacons

- Maritime Aviation Land

Where use is maritime, please ensure vessel details are filled in where applicable.

Where use is aviation, please ensure aircraft details are filled in where applicable.

Vessel Details

Name _____ Type of vessel _____

Callsign

MMSI _____ DWT (tonnes) _____ Length (metres) _____

Home port _____ Type of vessel(owner's description) _____

Immarsat No. _____ Other satellite mobile No. _____ Types of radio fitted/carried _____

Aircraft Details

Aircraft registration/tail number

Type of aircraft (owner's description)

ICAO abbreviation (if known)
 _____ - _____

Colour/Markings of aircraft
