



1. Effectivity

All 406 MHz Emergency Locator Transmitters (ELT) that have been installed with a programming dongle incorporated into the wiring.

2. Purpose

To alert maintenance organisations installing/re-installing 406 MHz ELT into aircraft that may have programmable dongles incorporated into the ELT wiring loom of potentially invalid details being transferred to the ELT memory.

3. Background

An ELT transmitting on 406 MHz sends digitally encoded information containing unique ELT identification details that is used to access a user registration database. This database, using the information supplied when registering with the Australian Maritime Safety Authority (AMSA), provides information on ELT type, country of origin, and the registration number of the aircraft and can also include location data derived from the Global Positioning System (GPS). Emergency contacts provided in the registration allow the Rescue Coordination Centre to confirm the validity of the alert and may help to improve emergency response.

ATSB has alerted CASA that, during an investigation into a helicopter accident, they discovered that ELT fitted to the aircraft had been activated by the accident impact but transmitted a test protocol signal. From a safety perspective, it is important to note that the transmission of a test protocol by the ELT is ignored by the Cospas-Sarsat monitoring system.

Further investigations revealed that the ELT had been removed to allow the new owner's details to be coded into the ELT memory. The maintenance organisation re-installed the ELT and an inadvertent re-coding of the ELT had occurred following reinstallation.

The helicopter was equipped with a programmable dongle connector incorporated into the ELT wiring loom. This device allows an un-programmed ELT to be fitted. The owner's details being transferred from the dongle to the ELT automatically. The dongle connector looks identical to the standard connector and can be installed as optional equipment. The intent of the dongle is to facilitate swapping of ELTs between aircraft in the operator's fleet, without needing to have them individually re-encoded.

ATSB confirmed that this dongle was programmed with the manufacturer's default test protocol, which, when it was refitted to the helicopter, reprogrammed the correctly-encoded ELT.



Emergency Locator Transmitters - Dongle
Reprogramming

AWB 25-018 **Issue :** 1
Date : 6 June 2011

4. Recommendations

Maintenance organisations should:

- confirm whether there is a programmable dongle incorporated into the aircraft wiring; and
- if a dongle is present, ensure that the correct data is loaded into its memory.

Some manufacturers utilise different dongles for maintenance and programming. In this case confirmation of part numbers would be necessary as the devices may be visually identical.

CASA urges maintenance organisations to verify that the correct details have been programmed into the ELTs following installation using an appropriate ELT test set. The AMSA web site provides information on the testing of ELT.

5. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

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or in writing, to:

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