

AIRWORTHINESS BULLETIN

Hook and Loop Style Fasteners as Mounting AWB 25-023 Issue: 1 Mechanism for an Emergency Locator Date: 18 February 2013 Transmitter (ELT)

1. Effectivity

Emergency Locator Transmitters (ELT) mounted with hook and loop style fasteners, commonly referred to as Velcro®.

2. Purpose

The purpose of this Airworthiness Bulletin (AWB) is to inform aircraft owners and operators as well as installers and aircraft maintenance personnel of a concern with the ability of hook and loop style fasteners to retain their designed capability to restrain emergency locator transmitters during accident impact.

3. Background

The Federal Aviation Administration (FAA) issued Special Airworthiness Information Bulletin (SAIB) HQ-12-32 on 23 May 2012 advising that in several recent aircraft accidents, ELTs mounted with hook and loop style fasteners, have detached from their aircraft mounting. The separation of the ELT from its mount could cause the antenna connection to sever, rendering the ELT ineffective.

Inconsistent installation and reinstallation practices can lead to the hook and loop style fastener not having the necessary tension to perform its intended function. Additionally, the retention characteristics of the hook and loop style fastener may degrade over time, due to wear and environmental degradation from vibration, temperature, or contamination. The safety concern about these attachments increases when the ELT manufacturer's instructions for continued airworthiness (ICA) do not contain specific instructions for regularly inspecting the hook and loop style fasteners, or a replacement interval (e.g. Velcro life limit). This concern applies, regardless of how the hook and loop style fastener is installed in the aircraft.

4. References

(i) FAA Special Airworthiness Information Bulletin (SAIB) HQ-12-32.

5. Recommendations

CASA endorses the recommendations of FAA SAIB HQ-12-32, and this AWB is issued to bring these to the attention of aircraft owners, operators and maintenance organisations.



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In addition, CASA recommends aircraft owners, operators and maintenance organisations get ELT installation (i.e. aircraft modification) designers to review the ELT manufacturer's existing ICA and to ensure that the ICA for the aircraft or modification, as applicable, are appropriately addressing the hook and loop style fasteners handling for ELT retention.

CASA recommends that, unless already contained in ELT manufacturers' existing ICA, annual inspections include checks for:

- Proper ELT installation with particular attention to the condition of the hook and loop fasteners (if fitted);
- Battery corrosion;
- Operation of the controls and crash sensor; and
- The presence of a sufficient signal radiated from its antenna.

Note: The FAA has issued TSO-C126b, 406 MHz Emergency Locator Transmitter (ELT) to add the following:

The use of hook and loop fasteners is not an acceptable means of attachment in complying with the Crash Safety requirements of section 2.2.5 of RTCA/DO-204A for automatic fixed (AF) and automatic portable (AP) ELTs.

6. 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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