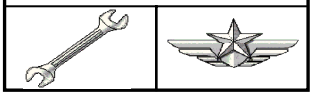
No. 3698-I-25

Information Notice

SUBJECT: EQUIPMENT AND FURNISHINGS - Automatic Deployable Emergency Location Transmitter (ADELT) system

EASA SIB 2020-20 / Implementation by the EASA of a report in case of unintended deployment

For the attention of



AIRCRAFT CONCERNED	Version(s)	
	Civil	Military
AS365	N, N3	
AS565		MBe
EC155	B, B1	
EC225	LP	
EC725		AP
AS332	L1, L2	
AS532		AL
EC175	B	
MBB-BK117	C-2, C-2e, D-2, D-2m, D-3, D-3m	D-2m, D-3m
EC135	T1, T2, T2+, T3, P1, P2, P2+, P3, EC635 T1, EC635 T2+, EC635 T3, EC635 P2+, EC635 P3, T3H, P3H, EC635 T3H, EC635 P3H	

Following several unexplained unintended deployments of Automatic Deployable Emergency Location Transmitters (ADELT), the EASA published the attached Safety Information Bulletin 2020-20.

Due to deployment of emergency location transmitters, this SIB encourages some maintenance operations in order to collect data from the ADELT system and the return of the form attached to this SIB to the holders of STC / TC of these installations as well as to the beacon suppliers.

Appendix: EASA SIB 2020-20

Safety Information Bulletin

Airworthiness

SIB No.: 2020-20

Issued: 01 December 2020

Subject: **Automatic Deployable Emergency Locator Transmitters / Crash Position Indicators**

Ref. Publications:
Civil Aviation Authority of the United Kingdom CAP1144 ADELT review report dated January 2014.

Applicability:
Organisations operating, maintaining or repairing aircraft equipped with an Automatic Deployable Emergency Locator Transmitter (ELT(AD)); Type Certificate (TC) holders of aircraft types equipped with an ELT(AD); Supplemental Type Certificate (STC) holders of changes covering the installation of an ELT(AD); and manufacturers of ELT(AD).

Description:
Certain aircraft, mainly helicopters operating over water, are equipped with an ELT(AD), sometimes referred to as Crash Position Indicator (CPI). Regulation (EU) 965/2012 SPA.HOFO.165(f) requires that helicopters are equipped with such equipment for operations in a hostile environment (e.g. some offshore operations).

EASA has been made aware that this type of equipment is subject to a high rate of failures, malfunctions and defects in the field. The occurrences include unintended deployments in flight or on ground, but also unintended transmission without deployment, spurious indications of either transmission and/or deployment. The analysis of the maintenance records from several operators showed that most of these in-service occurrences are not properly reported, either to the equipment manufacturers or to the TC/STC holders of the affected aircraft types, or, when applicable, to the competent authority.

The purpose of this SIB is to encourage the proper reporting of all these occurrences in the aim of improving the collection of ELT(AD) in service issues in order to allow the analysis of their frequency, the determination of the possible root causes and taking appropriate corrective actions.

Unintended deployment and precursor failures

The analysis of some operator data revealed that, in a significant number of cases, an unintended deployment is preceded by unintended transmissions, or by spurious indications of either deployment and/or transmission. Based on the fact that the actual origin of these failures cannot be easily determined and failures could be sometimes intermittent, the subsequent maintenance actions may misleadingly seem to bring immediate resolution of the issue, although the root cause

is still latent. This often results in further events that may occur as soon as the next flight or could happen a few months later.

ELT(AD) occurrences to be reported to the TC/STC holders and ELT(AD) manufacturers
In addition to the in-service occurrences that the regulations require to report, all other occurrences that are not related to a mishandling or misuse of the equipment may be a precursor of an unintended deployment as well. Therefore these occurrences should also be reported to the TC/STC holders and to the equipment manufacturers, as advised in the section Recommendation(s) of this SIB. This should permit these stakeholders to analyse the frequency of all occurrences, to identify possible root causes and to take appropriate corrective actions.

Equipment data
Most equipment do store data that permit to determine the source of the deployment or of other occurrences. However, depending on the design, a new activation of the system may clear these data. It is therefore important to retrieve these data before conducting further tests.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under Regulation (EU) 748/2012, Part 21.A.3B.

Recommendation(s):

Organisation experiencing an unintended deployment of an ELT(AD) or an ELT(AD) occurrence resulting in the equipment inability to deploy or transmit should report the occurrence to the competent authority, attaching to the report a completed version of the form in Appendix 1 of this SIB, or an equivalent form providing at least the same level of information.

Organisation experiencing any in-service ELT(AD) occurrence that is not directly related to equipment mishandling or misuse should report this occurrence to the TC/STC holder and to the equipment manufacturer using the form in Appendix 1 of this SIB , or an equivalent form providing at least the same level of information.

In both cases, the organization should perfom the following actions:

1. download of data from the equipment memory using the equipment maintenance procedure before the equipment can be activated again,
2. contact the equipment manufacturer immediately for further instructions, if any,
3. perform additional maintenance investigations as needed in coordination with the equipment manufacturer and/or the TC/STC holder, and
4. should additional information be available as a result of these investigations, update the form in Appendix 1 of this SIB , or an equivalent form providing at least the same level of information and transmit it to the initial recipients.

TC holders and STC holders concerned by this SIB should maintain a database of all the reported ELT(AD) occurrences and failures, and monitor the rate of those failures.

Manufacturers of ELT(AD) should maintain a database of all the reported ELT(AD) occurrences and failures, monitor the rate of these failures, report occurrences and regularly inform the competent authority about the status of the analysis of the reported failures.

Contact(s):

For further information contact the EASA Programming and Continued Airworthiness Information Section, Certification Directorate, E-mail: ADs@easa.europa.eu.

Appendix 1 – ELT(AD) return form

1.	**Report date**				
1.1.	Report date				
2.	**Reporting organisation**				
2.1.	Reporting organisation name				
2.2.	Reporting organisation address				
2.3.	Reporting contact name				
2.4.	Reporting contact email				
2.5.	Reporting contact phone				
3.	**Aircraft identification**				
3.1.	Aircraft operator				
3.2.	Aircraft manufacturer				
3.3.	Aircraft type				
3.4.	Aircraft date of manufacturing				
3.5.	Aircraft registration				
3.6.	Please indicate how many aircraft of the same type and equipped with an ELT(AD) are operated in the organisation				
3.7.	Average yearly flight hours for each of those aircraft				
4.	**ELT(AD) identification**				
4.1.	ELT(AD) manufacturer				
4.2.	ELT(AD) (beacon and installed components)				
	Part number	Serial number	Date of manufacturing	Estimated time in service[1]	
4.2.1.					
4.2.2.					
4.2.3.					
4.2.4.					
4.2.5.					
4.2.6.					
4.2.7.					

[1] Since the part is installed on this aircraft. If the total time in service of the part is known, please also indicate it.

4.3.	Beacon HexID	
4.4.	ELT(AD) Batteries expiry dates	Beacon: Installed equipment (if applicable):
5.	**Event and investigations**	
5.1.	Date of Event	
5.2.	Time of Event	
5.3.	Location of Event	
5.4.	Event description	
5.5.	Type of event	☐ Unintended deployment ☐ Inadvertently commanded deployment ☐ Inadvertent transmission ☐ Spurious indication of deployment ☐ Spurious indication of transmission ☐ Other event:
5.6.	Ground/flight phase	☐ On ground before start , without aircraft power (except during maintenance) ☐ On ground between aircraft power on to shortly after engine start ☐ On ground while taxying ☐ In flight - take off ☐ In flight - hovering ☐ In flight - cruise ☐ In flight - approach ☐ In flight - landing ☐ On ground while taxying ☐ On ground between engine shutdown and aircraft power off ☐ On ground during maintenance Additional information on the sequence of event:
5.7.	Specific circumstances	☐ Following aircraft washing/cleaning ☐ Heavy rain ☐ Icing ☐ Cold weather ☐ Hot weather ☐ Lightning strike ☐ Heavy landing Additional information:
5.8.	Equipment status at the time of event	☐ Off ☐ Armed Last Built In Test result: ☐ Passed - ☐ Failed

5.9.	Cockpit indication and position of ELT(AD) controls after the event	Transmit switch position: ☐ Guarded OFF - ☐ Unguarded OFF - ☐ Unguarded ON Deploy switch position: ☐ Guarded OFF - ☐ Unguarded OFF - ☐ Unguarded ON Transmit/test indicator: ☐ OFF - ☐ Blinking - ☐ ON Beacon gone indicator: ☐ OFF - ☐ Blinking - ☐ ON Has a reset been performed: ☐ Yes - ☐ No Additional information:
5.10.	Power supply condition when the event occurred	
5.11.	Presence of transmission	☐ No evidence of transmission ☐ Transmission confirmed through 121.5MHz monitoring ☐ 121.5MHz transmission reported by Air Traffic Control (ATC) or other airspace user ☐ 406 MHz transmission reported by Search and Rescue (SAR) services
5.12.	Visual inspection of the equipment parts	
5.13.	Visual inspection of the installation (cockpit controls, wiring, attachment, presence of corrosion, water ingress)	
5.14.	Maintenance	Date of last maintenance operation: Last Maintenance operation performed:
5.15.	Result of investigations on the event	
5.16.	Result of self-tests, memory readouts, …	

5.17.	Return to operation	Has the aircraft returned to operation after the event? ☐ Yes - ☐ No If yes, numbers of flight hours since the event:
6.	**Additional information**	
6.1.	Other relevant information	