

**‘Acceptable Means of Compliance and Guidance Material to Annex IV (Part-CAT)
to Regulation (EU) No 965/2012 — Issue 2, Amendment 19’**

The Annex to ED Decision 2014/015/R is amended as follows:

The text of the amendment is arranged to show deleted text, new or amended text as shown below:

- (a) deleted text is marked with ~~strikethrough~~;
- (b) new or amended text is highlighted in blue;
- (c) an ellipsis (...) indicates that the remaining text is unchanged.

Note to the reader

In the amendments, and in particular in existing (that is, unchanged) text, the term ‘Agency’ is used interchangeably with ‘EASA’. The interchangeable use of these two terms is more apparent in the consolidated versions. Therefore, please note that both terms refer to the ‘European Union Aviation Safety Agency (EASA)’.

SUBPART A — GENERAL REQUIREMENTS

AMC1 CAT.GEN.MPA.205 Aircraft tracking system — Aeroplanes

EQUIPMENT, PERFORMANCE AND PROCEDURES WHEN AIRCRAFT TRACKING IS REQUIRED

- (a) (...)
- (...)
- (i) Procedures

The operator should establish procedures describing its aircraft tracking system, including the identification of abnormal flight behaviour and the notification of the competent ATS unit (ATS unit responsible for providing the alerting service in the airspace where the aircraft is believed to be), when appropriate. These procedures should be integrated with the emergency response plan of the operator.

GM6 CAT.GEN.MPA.205 Aircraft tracking system — Aeroplanes

PROVIDING CONTACT INFORMATION TO COMPETENT AIR NAVIGATION SERVICE PROVIDERS

A solution for the operator to make the necessary contact information available to all competent air navigation service providers (ANSPs) could be to register to the global OPS Control Directory of ICAO. Another ~~One~~ possible way ~~of ensuring that contact information has been made available to all the competent air navigation service providers~~ is to provide in the ATS flight plan (item 18 'Other information') information sufficient to contact the on-duty staff of the aircraft operator.

AMC1 CAT.GEN.MPA.210 Location of an aircraft in distress — Aeroplanes

PERFORMANCE OF THE AIRBORNE SYSTEM, TRANSMISSION SERVICE, AND OPERATIONAL PROCEDURES

- (a) Performance of the airborne system

The airborne system used to comply with point CAT.GEN.MPA.210 ('airborne system') should:

- (1) be approved in accordance with the applicable airworthiness requirements; and
- (2) comply with the Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS) issued by EASA, or equivalent.

- (b) Transmission service

If the airborne system relies on other equipment than ELTs for transmitting the information needed to comply with point CAT.GEN.MPA.210, the provider of the transmission service should be a surveillance service provider that is certified in accordance with Regulation (EU) 2017/373 (the 'ATM/ANS Regulation').

- (c) Flight crew procedures

The operator should establish flight crew procedures for using the airborne system, including manual activation and manual deactivation of that system. These procedures should ensure

that the flight crew manually activate the airborne system only if a search and rescue (SAR) response is needed or anticipated, and that they inform the relevant ATS unit in a timely manner when they manually deactivate or disable the airborne system to stop data transmission.

(d) Operator's procedures

The operator should establish procedures:

- (1) for assessing whether an aircraft is likely to be in a state of emergency and
- (2) for informing the competent ATS unit (ATS unit responsible for providing the alerting service in the airspace where the aircraft is believed to be):
 - (i) when a state of emergency is identified, and
 - (ii) when a state of emergency no longer exists.

(e) Limiting the effects of false alerts

To reduce the frequency and effects of false alerts that are caused by the airborne system, the operator should:

- (1) establish procedures for disabling any of the required functions of the airborne system;
- (2) consider the airborne system inoperative if, during a flight, there were several occurrences of undesirable automatic activation of the airborne system; and
- (3) analyse occurrences of undesirable (manual and automatic) activation of the airborne system to determine their probable cause; the records of such analyses should be retained for at least 12 months and provided to the competent authority on request.

GM1 CAT.GEN.MPA.210 Location of an aircraft in distress — Aeroplanes

OBJECTIVES AND IMPLEMENTATION

(a) The purpose of point CAT.GEN.MPA.210 is to have a high probability of timely and accurately locating the accident site after an accident during which the aircraft is severely damaged, irrespective of the accident location and survivability (hence, the terms 'automatic', 'robust', and 'accurately' are used in CAT.GEN.MPA.210). The scope of point CAT.GEN.MPA.210 includes non-survivable accidents. Means compliant with point CAT.GEN.MPA.210 are expected to:

- (1) quickly inform the SAR authority concerned that an accident occurred or is about to occur and provide them with information that can easily be used for locating the accident site; and
- (2) help the safety investigation authority concerned to locate the accident site and the aircraft wreckage so that they can collect evidence in a reasonable time frame.

Therefore, if an aircraft in the scope of CAT.IDE.A.280 complies with CAT.GEN.MPA.210, this aircraft is not required to be equipped with an automatic emergency locator transmitter (ELT). Similarly, if an aircraft in the scope of CAT.IDE.A.285 complies with CAT.GEN.MPA.210, this aircraft is not required to be equipped with a 8.8-kHz underwater locating device (ULD).

- (b) The airborne system used to comply with point CAT.GEN.MPA.210 could rely, for example, on an emergency locator transmitter of a distress tracking type (ELT(DT)), on an automatic deployable flight recorder (ADFR), or on the transmission of position reports at short time intervals (high-rate tracking (HRT)).
- (c) Subpart A of the Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS) contains general conditions applicable to the airborne system. Subpart E of CS-ACNS contains specific conditions for meeting the purpose of point CAT.GEN.MPA.210.
- (d) If other transmitting equipment than an ELT is used by the airborne system for complying with CAT.GEN.MPA.210, AMC1 CNS.OR.100 to Part-CNS of the ATM/ANS Regulation contains conditions applicable to the provider of the transmission service that is used by that equipment.
- (e) While AMC1 CNS.OR.100 only addresses the transmission of information to the SAR authorities, the capability to also transmit that information to the operator is advisable.

GM2 CAT.GEN.MPA.210 Location of an aircraft in distress — Aeroplanes

EXPLANATION OF TERMS

The terms used in point CAT.GEN.MPA.210 and AMC1 CAT.GEN.MPA.210 are explained below for better understanding:

- ‘accident during which the aeroplane is severely damaged’ refers to an accident during which the aeroplane sustains damage or structural failure that adversely affects its structural strength, performance, or flight characteristics, and would normally require a major repair or replacement of the affected component, except for:
 - an engine failure or damage to the engine, when the damage is limited to a single engine (including its cowlings or accessories);
 - damage limited to propellers, wing tips, antennas, probes, vanes, tyres, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aeroplane skin (such as small dents or puncture holes);
 - minor damage to the landing gear; and
 - damage resulting from hail or bird strike (including holes in the radome);
- ‘accurately determine the location of the point of end of flight’ means locating the point of end of flight with a position accuracy that is sufficient for safety investigation purposes, and when the accident conditions are survivable, also for SAR purposes;
- ‘activation of the airborne system’ means the transition of the airborne system from another state to the activated state;
- ‘airborne system’ means the organised set of airborne applications and airborne equipment that comply with CAT.GEN.MPA.210;
- ‘ATM/ANS Regulation’ refers to Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 or any later EU regulation laying down common requirements for providers of air traffic management/air navigation services.

- ‘automatic means’ refers to means that do not require any human action to perform their intended function;
- ‘automatic activation of the airborne system’ means activation of the airborne system that is automatically triggered by airborne equipment;
- ‘deactivation of the airborne system’ means the transition of that system from the activated state to another state;
- ‘point of end of flight’ means, depending on the nature of the accident, the point where the aircraft crashed into land or water, or landed on land or water, or was destroyed;
- ‘required functions of the airborne system’ refers to the ‘functions of the system’, which are defined in the CS-ACNS that are applicable to locating an aircraft in distress;
- ‘robust means’ refers to means designed to work properly under the circumstances of survivable accidents, and under the circumstances of most non-survivable accidents;
- ‘the airborne system is activated’ means that the airborne system transmits signals to enable the determination of the location of the point of end of flight without sending mobile SAR facilities to the area of the transmitter; and
- ‘transmission service’ refers to the service that makes the information sent by the airborne system available to the relevant stakeholders.

SUBPART D — INSTRUMENTS, DATA, EQUIPMENT

SECTION 1 — AEROPLANES

AMC2 CAT.IDE.A.280 Emergency locator transmitter (ELT)

TYPES OF ELTs AND GENERAL TECHNICAL SPECIFICATIONS

- (a) The ELT required by this provision should be one of the following:
- (1) (...)
 - (2) (...)
 - (3) Automatic deployable (ELT(AD))-~~a~~. An ELT that is rigidly attached to the aircraft before the crash and that is automatically ~~ejected~~, deployed and activated by an impact, and, in some cases, also by ~~hydrostatic water~~ sensors. ~~Manual deployment is also provided~~. This type of ELT should float in water and is intended to aid SAR teams in locating the crash site. The ELT(AD) may be either a stand-alone beacon or an inseparable part of a deployable recorder.
 - (4) Distress tracking ELT (ELT(DT)). An ELT that is designed to be activated upon automatic detection of conditions indicative of a distress situation. This type of ELT is intended to provide information prior to the crash, to aid SAR teams in locating the crash site and/or any survivor(s).
 - ~~(4)~~(5) Survival ELT (ELT(S)). (...)
- (b) To minimise the possibility of damage in the event of a crash impact, ~~the automatic ELT~~ the ELT(AF), ELT(AP), ELT(AD), or ELT(DT) should be rigidly fixed to the aircraft structure, as far aft as ~~is~~ practicable, with its antenna and connections arranged so as to maximise the probability of the signal being transmitted after a crash.
- (c) Unless an automatic ELT is installed, the ELT(DT) should have capability C (crash survivability) and capability H1 (121.5-MHz homing signal) as specified in EUROCAE ED-62B 'Minimum Operational Performance Standard for Aircraft Emergency Locator Transmitters', dated December 2018, or in any later equivalent standard that is produced by EUROCAE.
- ~~(e)~~(d) (...)

GM1 CAT.IDE.A.280 Emergency locator transmitter (ELT)

TERMINOLOGY

~~'ELT' is a generic term describing equipment that broadcasts distinctive signals on designated frequencies and, depending on application, may be activated by impact or may be manually activated.~~

- (a) An 'automatic ELT' means an ELT(AF), ELT(AP), or ELT(AD). Other types of ELTs are not considered 'automatic ELTs'.
- (b) A 'water sensor' means a sensor that detects water immersion, including at low depth.

GM2 CAT.IDE.A.280 Emergency locator transmitter (ELT)

ADDITIONAL GUIDANCE

- (a) It is advisable to install automatic ELTs that transmit encoded position data and that meet the operational performance requirements of EUROCAE Document ED-62B, or RTCA DO-204B, or any later equivalent standard.
- (b) Guidance material for the inspection of an ELT can be found in FAA Advisory Circular (AC) 91-44A 'Installation and Inspection Procedures for Emergency Locator Transmitters and Receivers', Change 1, dated February 2018.

AMC2 CAT.IDE.A.285(f) Flight over water

ROBUST AND AUTOMATIC MEANS TO LOCATE THE POINT OF END OF FLIGHT AFTER AN ACCIDENT

The 'robust and automatic means to accurately determine, following an accident where the aeroplane is severely damaged, the location of the point of end of flight' should comply with point CAT.GEN.MPA.210.

SECTION 2 — HELICOPTERS

AMC2 CAT.IDE.H.280 Emergency locator transmitter (ELT)

TYPES OF ELTs AND GENERAL TECHNICAL SPECIFICATIONS

- (a) The ELT required by this provision should be one of the following:
 - (1) (...)
 - (2) (...)
 - (3) Automatic Deployable (ELT(AD)). An ELT that is rigidly attached to the aircraft before the crash and that is automatically ~~ejected~~, deployed and activated by an impact, and, in some cases, also by ~~hydrostatic water~~ sensors. ~~Manual deployment is also provided.~~ This type of ELT should float in water and is intended to aid SAR teams in locating the crash site. The ELT(AD) may be either a stand-alone beacon or an inseparable part of a deployable recorder.
 - ~~(4) Survival ELT (ELT(S)). An ELT that is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by a survivor. An ELT(S) may be activated manually or automatically (e.g. by water activation). It should be designed either to be tethered to a life raft or a survivor. A water-activated ELT(S) is not an ELT(AP).~~
- (b) (...)
- (...)

GM1 CAT.IDE.H.280 Emergency locator transmitter (ELT)

TERMINOLOGY

~~'ELT' is a generic term describing equipment that broadcasts distinctive signals on designated frequencies and, depending on application, may be activated by impact or may be manually activated.~~

- (a) An 'automatic ELT' means an ELT(AF), ELT(AP), or ELT(AD). Other types of ELTs are not considered 'automatic ELTs'.
- (b) A 'water sensor' means a sensor that detects water immersion, including at low depth.

GM2 CAT.IDE.H.280 Emergency locator transmitter (ELT)

ADDITIONAL GUIDANCE

- (a) It is advisable to install automatic ELTs that transmit encoded position data and that meet the operational performance requirements of EUROCAE Document ED-62B, or RTCA DO-204B, or any later equivalent standard.
- (b) Guidance material for the inspection of an ELT can be found in FAA Advisory Circular (AC) 91-44A 'Installation and Inspection Procedures for Emergency Locator Transmitters and Receivers', Change 1, dated February 2018.

AMC1 CAT.IDE.H.300(b)(3) & CAT.IDE.H.305(b) Flight over water & Survival equipment

SURVIVAL ELT

- (a) The survival ELT (ELT(S)) is an ELT removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by a survivor. An ELT(S) may be activated manually or automatically (e.g. by water activation). It should be designed to be tethered either to a life raft or a survivor.
- (b) An ELT(AP) may be used to replace one required ELT(S) provided that it meets the ELT(S) requirements. A water-activated ELT(S) is not an ELT(AP).