

Comment				Comment summary	Suggested resolution	Comment is an observation (suggestion)	Comment is substantive (objection)	EASA comment disposition	EASA response
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1	Astronics DME LLC	General		<p>Thank you for your work to improve the activation and performance reliability of ELT Systems.</p> <p>Proper ELT System installation is an important element in the overall achievement of system reliability and deep guidance on this topic is acutely needed.</p> <p>Please find our comments within the attached document.</p> <p>Our primary concern is the lack of guidance regarding mounting to a variety of aircraft structure types; airframe materials; mounting locations; susceptibility of locations to impact damage/deformation/fire; the ability of the structure to transmit the impact stress wave to the crash sensor; and identifying the preferred crash sensor installation locations based on structure types; structure materials; and crash sensor activation sensitivity.</p> <p>Truly, this is a system engineering challenge and EASA guidance is certain to have a positive impact on system reliability.</p>				Noted	The general comment is noted. At the issue 1 of this CM-AS-008, EASA is not in position to expand the guidance provided on the installation up to the level suggested in the comment. This CM reflects currently published industry standards. The recommendations provided in this CM do not go beyond what it is already provided in EUROCAE ED-62A, which is currently under revision considering as well results from specific crash testing. Once the updated industry standard is available, we will review EASA CM guidance. EASA strongly encourages industry to contribute to standard development with proposals to the EUROCAE /RTCA WG 98.
2	Astronics DME LLC	Section 2, 5 th paragraph, 1 st sentence	6	<p><i>2. Background</i></p> <p>...</p> <p><i>In accidents where ELTs did not work effectively (or at all), it was found that their performance could be affected by:</i></p> <p>...</p> <p><u>Comment:</u></p> <p>There are many things that could degrade performance. Should this say... "commonly"?</p>				Not accepted	The list of potential issues provided does not intend to be exhaustive. Other issues may degrade ELT performance as well, but those provided here have been proved to be source of ELT degraded performance. Data has been provided by accident investigation authorities.
3	Astronics DME LLC	Section 2, 5 th paragraph, 3 rd bullet point	6	<p><i>2. Background</i></p> <p>...</p> <p><i>In accidents where ELTs did not work effectively (or at all), it was found that their performance could be affected by:</i></p> <ul style="list-style-type: none"> - <i>Not selecting the ELT activation to the armed position before flight;</i> - <i>Inappropriate installation of the ELT or any of the activation sensors;</i> - <i>Discharged or corroded batteries</i> - ... <p><u>Comment:</u></p> <p>Corroded batteries is an old finding (1970 -1980). I do not believe that corrosion is a common fault in ELTs of recent design.</p>				Partially accepted	Based on recurrent occurrence reports that refer to corrosion in different parts of ELT system, the CM needs to consider corrosion as potential source of degraded ELT performances. Therefore, EASA partially accepts the comment and will decouple corrosion effect from the batteries and consider it in a more general way. The wording is amended as follows: <ul style="list-style-type: none"> - <i>Discharged batteries</i> - <i>Corrosion</i>

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4	Astronics DME LLC	Section 2, 6 th paragraph	7	<p>2. Background</p> <p>...</p> <p><i>The same causes can also cause inadvertent activation, causing unnecessary SAR activity, or deployment of the ADELTA, which can also create hazards to people on the ground and make the aircraft difficult to find if the ELT is deployed far away from the actual accident site.</i></p> <p>...</p> <p><u>Comment:</u></p> <p>I'm not sure this statement is actually true. For example, a discharged battery would not cause and inadvertent activation. Perhaps this could be reworded?</p>				Accepted	<p>The issues causing degraded or no performance at all of the ELT, may be different from those causing the unintended activation. The intention was to address the inadvertent activation of the ELT. The sentence is reworded:</p> <p>"Some other issues such as human factors or maintenance may cause inadvertent activation, ..."</p>
5	Astronics DME LLC	Section 3.1, 1 st paragraph	7	<p>3.1 EASA policy</p> <p><i>The Emergency Locator Transmitter (ELT) is considered a passive and dormant device whose status is unknown until it is required to perform its intended function. As such, its performance is highly dependent on proper installation and post-installation testing. Guidance on this subject is contained in RTCA/DO-182, Emergency Locator Transmitter (ELT) Equipment Installation and Performance and EUROCAE/ED-62A2, Minimum Operational Performance Specification for aircraft Emergency Locator Transmitters 406 MHz and 121.5 MHz (Optional 243 MHz).</i></p> <p>...</p>	<p>3.1 EASA policy</p> <p><i>The Emergency Locator Transmitter (ELT) is considered a passive and dormant device whose status is unknown until it is required to perform its intended function. As such, its performance is highly dependent on its reliability in a challenging event and dependent on proper installation and post-installation testing. Guidance on this subject is contained in RTCA/DO-182, Emergency Locator Transmitter (ELT) Equipment Installation and Performance and EUROCAE/ED-62A2, Minimum Operational Performance Specification for aircraft Emergency Locator Transmitters 406 MHz and 121.5 MHz (Optional 243 MHz).</i></p> <p>...</p>			Accepted	<p>The wording is modified according to the proposal: "As such, its performance is highly dependent on its reliability in a challenging event and dependent on proper installation and post-installation testing."</p>
6	Astronics DME LLC	Section 3.1.1	7	<p>3.1.1 Installation aspects of ELTs</p> <p><i>The installation of the equipment should be designed in accordance with the ELT manufacturer's installation instructions.</i></p> <p><u>Comment:</u></p> <p>Which takes precedence? The Mfg instructions or the guidance provided in this document?</p>				Noted	<p>It is understood the comment requires clarification but it does not request change in the wording, therefore, the comment is noted. This CM provides general guidance and it should not contradict equipment manufacturer's installation instructions. In case of specific ELT installation manual, their instructions should be considered in the first case. Then, this CM addresses the guidance provided in ED-62A. That industry standard is followed by ELT's equipment manufacturers, therefore their instructions should be aligned with the ones coming from ED-62A .</p>

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7	Astronics DME LLC	Section 3.1.1.1, 2 nd paragraph	7	<p><i>3.1.1.1 ELT transmitter unit and crash acceleration sensors installation</i></p> <p>...</p> <p><i>The ELT unit should be mounted to primary aircraft load-carrying structures such as trusses, bulkheads, longerons, spars or floor beams (not aircraft skin). Otherwise, the structure should meet the requirements of the test specified in section 6.1.8 of the ED-62A.</i></p> <p>...</p> <p><u>Comment:</u></p> <p>The types of aircraft structures (truss; monocoque, semimonocoque), the structure materials (wood, metal, composites), the proposed installation location and the impact stress wave path all must be taken into consideration when selecting a mounting location and mounting provision for the crash sensor. If the crash sensor is integral to the ELT transmitter then the installation location selection should also consider the ability of the structure to provide a survivable volume and fire protection (structure and inherent ELT fire protection).</p>				Noted	The general comment is noted. At the issue 1 of this CM-AS-008, EASA is not in position to expand the guidance provided on the installation up to the level suggested in the comment. This CM reflects currently published industry standards. The recommendations provided in this CM do not go beyond what it is already provided in EUROCAE ED-62A, which is currently under revision considering as well results from specific crash testing. Once the updated industry standard is available, we will review EASA CM guidance. EASA strongly encourages industry to contribute to standard development with proposals to the EUROCAE /RTCA WG 98.
8	Astronics DME LLC	Section 3.1.4, 3 rd paragraph, 3 rd bullet point	11	<p><i>3.1.4 Maintenance and Inspection Aspects</i></p> <p>...</p> <p><i>Inspection should include:</i></p> <ul style="list-style-type: none"> - <i>Removal of all interconnections to the ELT antenna and inspection of cables and terminals.</i> - <i>Removal of the ELT unit and inspection of the mounting.</i> - Access to battery to check there is no corrosion. - <i>Check of the Crash sensor (G-switch) is recommended. Refer to ED-62A, section 7.6 periodic inspection for further guidance.</i> - <i>Measurement of transmission frequencies and power output.</i> <p><u>Comment:</u></p> <p>See previous comment. Further, a self-test to verify energy emitted satisfies this requirement (see last bullet in this list)</p>				Not accepted	Inspection activities are in line with ED-62A, which is the industry standard available. It may be revised when ED-62B is published.

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9	Airbus Helicopters	§3.1.1.1.	7	<p><i>“The structure to which the ELT is mounted should not be likely to separate in case of crash, such as a helicopter tail boom.”</i></p> <p>What is important is to prevent the break of the coaxial cable between the ELT and its outside associated antenna. The ELT and the antenna could be both installed in the tail boom. It is even good in a lot of cases for helicopters, where the tail boom is often separated from the cargo and the cargo is likely to be damaged by post-crash fire.</p>	<p>We suggest replacing the existing sentence by the following:</p> <p><i>“The ELT and the associated outside antenna should be installed in such a manner that, in case of crash, their separation should be very unlikely.”</i></p>		Yes	Partially accepted	<p>The reference to helicopter tail boom is coming from the analysis of accidents involving Automatic Deployable ELT on helicopters. The rationale for this recommendation is that in case of detachment from the aircraft, like in the case of tail boom, the ADELTA might not receive the signal activating its transmission. This was the case of some rotorcraft accidents where the deployable ELT was detached before water sensor or crash sensor could trigger its deployment and transmission.</p> <p>It is recognised that specific mention to tail boom should be better placed in §3.1.2 Deployment aspects of ADELTA. The recommendation is placed in §3.1.2 and not under §3.1.1.1.</p> <p>In addition, a provision has been introduced to address the case where, after the detachment of the structural part, the design is such that ELT system operation is not impacted. In such a case, the location is acceptable. The following sentence is introduced in §3.1.2:</p> <p>“This recommendation might not be considered if the design is such that ELT system operation is not impacted by the detachment of the structural part where it is installed”.</p>
10	Boeing Commercial Aeroplanes	Sec 3.1.1.1	7	<p>EASA proposed text states:</p> <p><i>“The ELT unit should be mounted to primary aircraft load-carrying structures such as trusses, bulkheads, longerons, spars or floor beams (not aircraft skin). Otherwise, the structure should meet the requirements of the test specified in section 6.1.8 of the ED-62A.”</i></p> <p>Our justification for the recommended change is: The noted text is not applicable to ELT(S) but the requirement as written may be interpreted to apply to all ELT types. ELT(S) installation limitations are noted in the 3rd paragraph of section 3.1.1.1.</p>	<p>We recommend modifying the text as follows:</p> <p><i>“The ELT unit should be mounted to primary aircraft load-carrying structures such as trusses, bulkheads, longerons, spars or floor beams (not aircraft skin). Otherwise, the structure should meet the requirements of the test specified in section 6.1.8(a) of the ED-62A. However, this does not apply to ELT(S).”</i></p>	Yes		Accepted	<p>The proposed change is accepted and, in addition, the test specified in section 6.1.8a) of the ED-62A is quoted for quick reference.</p>
11	Boeing Commercial Aeroplanes	Sec 3.1.1.3 9	9	<p>EASA proposed text states:</p> <p><i>“Ideally, for the 121.5 MHz ELT antenna, 2.5 meters is sufficient separation from VHF communications and navigation receiving antennas to minimize unwanted interference. The 406 MHz ELT antenna should be positioned at least 0.8 m from VHF communications and navigation receiving antennas to minimize interference.”</i></p> <p>Our justification for the recommended change is: The above criteria is applicable to ELT (AF) and ELT (AP) only. The ELT(S) does not have an externally mounted antenna to the aircraft. The ELT(S) is only in the “armed” mode while it is on the aircraft, therefore, installation relative to VHF is not applicable.</p>	<p>We recommend modifying the text as follows:</p> <p><i>“Ideally, for the 121.5 MHz ELT antenna, 2.5 meters is sufficient separation from VHF communications and navigation receiving antennas to minimize unwanted interference. The 406 MHz ELT antenna should be positioned at least 0.8 m from VHF communications and navigation receiving antennas to minimize interference. However, this does not apply to ELT(S).”</i></p>	Yes		Accepted	<p>The comment is accepted and the following sentence is added at the beginning of section 3.1.1.3:</p> <p>“The recommendations addressed under this paragraph do not apply to ELT(S).”</p>

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12	Boeing Commercial Aeroplanes	Sec 3.1.1.3 9	9	<p>EASA proposed text states:</p> <p><i>“The VSWR of the installed external antenna should be checked at all working frequencies according to the test equipment manufacturer’s recommendations.”</i></p> <p>Our justification for the recommended change is: VSWR check is accomplished on each antenna by the manufacturer. Airplane testing should be only required on the initial installation certification and this check provides no additional benefits to be performed on every installation.</p>	<p>We recommend modifying the text as follows:</p> <p><i>“The VSWR of the installed external antenna should be checked at all working frequencies according to the test equipment manufacturer’s recommendations on the initial airplane model certification.”</i></p>	Yes		Accepted	The proposed change is adopted.
13	Boeing Commercial Aeroplanes	Sec 3.1.1.3 9	9	<p>EASA proposed text states:</p> <p><i>“Coaxial cables between the antenna and the ELT unit should have vibration-proof RF connectors on each end. When the coaxial cable is installed and the connectors mated, each end should have some slack in the cable, and the cable should be secured to aircraft structures for support and protection.”</i></p> <p>Our justification for the recommended change is: Vibration criteria related to ELT antenna connectors should be installation specific and validated per the installation requirements.</p>	<p>We recommend modifying the text as follows:</p> <p><i>“Coaxial cables between the antenna and the ELT unit should have vibration-proof RF connectors that meet vibration requirements of the installation application on each end. When the coaxial cable is installed and the connectors mated, each end should have some slack in the cable, and the cable should be secured to aircraft structures for support and protection.”</i></p>	Yes		Accepted	The proposed change is adopted.
14	Boeing Commercial Aeroplanes	Sec. 3.1.5	11	<p>EASA proposed text states:</p> <p><i>“It should also contain detailed instructions for preflight and post-flight checks. As a pre-flight check, it should be checked that the ELT remote control is in the armed position. Post-flight, it should be ensured that the ELT is not transmitting by means of activation of the indicator on the remote control and/or monitoring 121.5 MHz.”</i></p> <p>Our justification for the recommended change is: Requirement for post-flight monitoring of 121.5 will not provide any direct assurance that the aircraft ELT has been activated.</p>	<p>We recommend modifying the text as follows:</p> <p><i>“It should also contain detailed instructions for preflight and post-flight checks. As a pre-flight check, it should be checked that the ELT remote control is in the armed position. Post-flight, it should be ensured that the ELT is not transmitting by means of activation of the indicator on the remote control. and/or monitoring 121.5 MHz..”</i></p>		Yes	Accepted	The wording is removed as per comment.
15	Boeing Commercial Aeroplanes	Sec. 3.1.5	11	<p>EASA proposed text states:</p> <p><i>“AFMs, or STC supplements to AFMs, should also contain information on the location and deactivation of ELTs...”</i></p> <p>Our justification for the recommended change is: ELT (AF) used in transport category aircraft are usually located in areas not accessible to flight or cabin crew. Access instructions and ELT control functions are noted in the aircraft maintenance manuals.</p>	<p>We recommend modifying the text as follows:</p> <p><i>“AFMs, or STC supplements to AFMs, should also contain information on the location and deactivation of ELTs. This does not apply to ELT (AF) used in transport category aircraft.”</i></p>	Yes		Not accepted	This recommendation is motivated by a Safety Recommendation that EASA has received. In certain accident, when SAR located the wreckage and ELT transmission was not needed any more, it took long time to locate the ELT in order to switch it off. During that period of time 121,5 MHz frequency was blocked by ELT transmission causing emergency service disturbance.

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16	GAMA		6	GAMA agrees with EASA's assessment described in this section and shares EASA's concern with the statement "... (A)ccident investigation reports involving mainly helicopters and general aviation aeroplanes show that the availability of ELT signal transmission is low after a crash". We also understands that helicopters and general aviation airplanes have a tendency to use ELT (AD) types as the primary ELT, which seems to be the focus of this CM. It should be noted that not all manufacturers incorporate ELT (AD) installations on their aircraft.		Yes	No	Noted	This CM addresses the installation of ELTs in general, having generic recommendations that apply to all ELT types that are installed, but also has specific recommendations to ADELTS.
17	GAMA	3.1.1		GAMA agrees with this statement that reiterates the ED-62A/DO-204A requirement that the installation should be designed in accordance with the manufacture's installation instructions		Yes	No	Noted	
18	GAMA	3.1.1.1		"The Structure to which the ELT is mounted should not be likely to separate in case of crash, such as a helicopter tail boom." This statement does not appear to be applicable to fixed wing aircraft.	We recommend removing this sentence from the paragraph. This guidance is already addressed in section 3.1.2 in reference to ELT (AD) installations.	No	Yes	Accepted	It is recognised that specific mention to tail boom should be better placed in §3.1.2 Deployment aspects of ADELTS. The recommendation is placed in §3.1.2 and not under §3.1.1.1.
19	GAMA	3.1.2		We share EASA's concern with the installation and deployment of ADELTS and agrees with the guidance provided in this section.		Yes	No	Noted	
20	GAMA	3.1.3		"The ELT controls should be designed and installed so that they are not activated unintentionally. These considerations should address the control panel locations, which should be clear from flight crew movements when getting into the cockpit and when operating the aircraft, and the control itself. As already indicated in 3.1.2, the means for manually activating the ELT transmissions should be guarded in order not to be activated unintentionally." The referenced section 3.1.2 is specific to ADELTS while section 3.1.3 is stated as "Additional consideration" for all ELT types.	We recommend removal of this sentence referencing section 3.1.2 from the paragraph, it is already stated in the paragraph that the "ELT controls should be designed and installed so that they are not activated unintentionally."	No	Yes	Accepted	The comment is accepted and consequently, reference to section 3.1.2 is removed.
21	GAMA	3.1.3		"The installation of ELT should be such that the label indicating the battery expiration date is clearly visible without equipment removal. This would facilitate replacement of the battery and maintenance activities"	We recommend additional guidance for the intent of this paragraph with regards to equipment removal. We replacing the paragraph with the statement below: "The installation of the ELT should be such that the label indicating the battery expiration date is clearly visible without requiring <u>removal of the ELT or other LRUs from the Aircraft</u> . This would facilitate replacement of the battery and maintenance activities."	No	Yes	Accepted	The proposed change is adopted.

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22	GAMA	3.1.4		"The self-test function should be performed according to manufacturer's recommendation but no less than every six months..." We feel that the ETSO'd manufacturer's recommendation should define the self-test and inspection requirements.	We recommend replacing the sentence with the following: <i>"The self-test function should be performed according to manufacturer's recommendation."</i> This will facilitate operational regulatory considerations.	No	Yes	Not accepted	As explained in the CM, the ELT is a passive and dormant device whose status is unknown until it is required to perform its intended function. Its performance is dependent on proper installation and adequate maintenance practices. This CM reflects the recommendation provided in ED-62A, chapter 7 Minimum maintenance requirements.
23	GAMA	3.2		"This Certification Memorandum affects applicants for TCs, Major Changes, Minor Changes and STC in which the installation of ELT is involved." After review of the EASA Proposed CM-AS-008 Issue 01 we have determined that the only section of this CM that deviates from the existing standards and guidance material is section 3.1.2 "Deployment aspects of ADELTS" & section 3.1.3 "Additional Considerations".	We recommend that the CM be rewritten to address only ADELTS installation and maintenance. All other information is already documented in existing/published guidance. Further we recommend this to limit the control of redundant standard/guidance material and the possibility for conflict.	No	Yes	Not accepted	EASA agrees with the analysis performed by GAMA. This CM has been written using as source of information already published standards such as EUROCAE ED-62A Minimum Operational Performance Specification for Aircraft Emergency Locator Transmitters 406 MHz and 121.5 MHz (Optional 243 MHz). Since the ED-62A does not provide specific guidance for ADELTS, the recommendations provided in section 3.1.2 about ADELTS are based on CAP 1144ADELTS Review Report published by CAA UK and several Safety Recommendations. EASA recognises that the information provided by standard EUROCAE ED-62A is not easily available to every installer of ELTs, especially to small companies working in General Aviation. On the other side, based on information from accident reports, it was found that improvement of installation and maintenance practices would increase the effectivity of the ELTs. Therefore, EASA has decided to publish this CM, which aims at disseminating existing guidance to a wider community.
24	Airbus Operations GmbH		1	EASA lists following Regulatory requirement(s): CS xx.1301, CS xx.1309, CS xx.1529, CS xx.1581. AIRBUS does not consider CS xx.1581 as a relevant requirement for automatic fixed installed ELTs or ADELTS.	Removal of "CS xx.1581".	Yes	No	Not accepted	This CM addresses considerations related to Aircraft Flight Manual; consequently, the requirement CS xx.1581 is included in list of paragraphs.
25	Airbus Operations GmbH		1	EASA lists following Regulatory requirement(s): CS xx.1301, CS xx.1309, CS xx.1529, CS xx.1581. AIRBUS suggests adding relevant Operational Regulations: CAT.IDE.A.280 Emergency locator transmitter (ELT) The reason is that an ELT(A) is only required by OPS-regulations; In addition, the CM shares some aspects that are addressed by CAT.IDE.A.280.	Adding: EU-OPS CAT.IDE.A.280	Yes	No	Not accepted	The EASA Certification Memorandum is mainly aimed at supporting the mentioned CS paragraphs. However, the CM includes Commission Regulation (EU) No 965/2012 in the Reference list. Additionally, the EU-OPS CAT.IDE.A.280 and other operational requirements related to ELTs are mentioned in section 2 Background.
26	Airbus Operations GmbH	3.1.1.2	8	The term "... instructions for continued airworthiness (ICA)" in following sentence should be considered: <i>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.</i> AIRBUS suggests using the term Maintenance Instruction instead of ICA.	AIRBUS suggests using the term Maintenance Instruction instead of ICA.	Yes	Yes	Not accepted	The term Instructions for Continued Airworthiness and its acronym ICA is homogenously used across this CM. Its use is consistent with the reference to CS XX.1529 Instructions for continued airworthiness, and consequently, it was considered as the appropriate term.

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27	Airbus Operations GmbH	3.1.1.2; 3.1.4	8, 10	The term “ICA” is used in further paragraphs: 3.1.1.2; 3.1.4. AIRBUS suggests using the term Maintenance Instruction instead of ICA.	AIRBUS suggests using the term Maintenance Instruction instead of ICA.	Yes	Yes	Not accepted	The term Instructions for Continued Airworthiness and its acronym ICA is homogenously used across this CM. Its use is consistent with the reference to CS XX.1529 Instructions for continued airworthiness, and consequently, it was considered appropriate term.
28	Airbus Operations GmbH	3.1.2.	9	The following sentence is not clear: <i>“The location of the ELT (AD) and its manner of installation should minimise the risk of injury to persons or damage to the aircraft in the event of inadvertent activation.”</i> The word “activation” should be replaced by “deployment”. Reason: An inadvertent activation is not a real risk in the way as written here, but rather the “deployment”.	The sentence may be changed to : <i>The location of the ELT (AD) and its manner of installation should minimise the risk of injury to persons or damage to the aircraft in the event of inadvertent deployment.</i>	Yes	Yes	Accepted	The word “activation” is replaced by “deployment”.
29	Airbus Operations GmbH	3.1.2.	9	The next sentence <i>“The means to manually deploy the ADEL T should be located in the cockpit in such a way, and should be guarded so that inadvertent manual activation of the ADEL T is minimised.”</i> does not consider configurations where ADEL T installation will have no manual deployment means at all. For instance if an ADEL T will be integrated with a deployable recorder unit. The CM shall consider both configuration cases. Again, AIRBUS interprets the term “manual activation” should have the meaning of “inadvertent deployment”.	AIRBUS proposes to change: <i>If a manually deployment of the ADEL T is permitted the means to trigger the deployment should be located in the cockpit in such a way, and should be guarded so that inadvertent manual deployment of the ADEL T is minimised. In case the ADEL T will be part of an integrated unit with deployable flight recorders, a manual deployment by the flight crew should not be permitted.</i>	Yes	Yes	Partially accepted	EASA assumes that this comment aims at addressing CAT.GEN.MPA.210 <i>Location of an aircraft in distress — Aeroplanes</i> introduced by Commission Regulation (EU) 2015/2338 regarding flight recorders, underwater locating devices and aircraft tracking systems applicable only to very large commercial air transport category aircraft. This CM was not written with these new operational requirements in mind, and therefore, guidance provided does not specifically address them. As of today, this CM addresses the operational requirements related to ELTs included in Commission Regulation (EU) No 965/2012 excluding CAT.GEN.MPA.210 introduced by Commission Regulation (EU) 2015/2338. As explained in section 2 Background, it covers commercial, non-commercial operations, fix and rotary wing types. The operational scenario derived from them requires to provide means for manual activation of the ELT (Refer to ED-62A Chapter 2 General design requirements). In the particular case of the ADEL T, the means to manually activate the ELT is as well required, without deployment. Additionally, on helicopters, a means to manually deploy the ADEL T is provided considering a very specific operational scenario for the helicopters in off shore operations. The wording is amended as follows: “If a manual deployment of the ADEL T is required the means to trigger the deployment should be located in the cockpit in such a way, and should be guarded so that, inadvertent manual deployment of the ADEL T is minimised.” The second sentence of the proposed change is not adopted in the current CM. EASA plans to address it as part of the future Certification Specifications applicable to deployable flight recorders.

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30	Airbus Operations GmbH	3.1.2	9	<p>As mentioned above, there is a confusion about the activation of an ADELTA (which will trigger the transmission of the emergency signal), and the deployment, which would separate the ADELTA but initiate the transmission too.</p> <p>It may be useful to introduce a recommendation about events that shall activate ADELTA emergency signal transmission.</p>	AIRBUS suggests introducing a recommendation about events that shall <u>activate</u> ADELTA emergency signal transmission.	Yes	No	Not accepted	<p>EASA assumes that this comments aims at addressing CAT.GEN.MPA.210 <i>Location of an aircraft in distress — Aeroplanes</i> introduced by Commission Regulation (EU) 2015/2338 regarding flight recorders, underwater locating devices and aircraft tracking systems applicable only to very large commercial air transport category aircraft. This CM was not written with these new operational requirements in mind, and therefore, guidance provided does not specifically address them.</p> <p>As of today, this CM addresses the operational requirements related to ELTs included in Commission Regulation (EU) No 965/2012 excluding CAT.GEN.MPA.210 introduced by Commission Regulation (EU) 2015/2338.</p>
31	Airbus Operations GmbH	3.1.3 3.1.5	10 11	<p>EASA use the term “Aircraft Flight Manual” in paragraphs 3.1.3 and 3.1.5. Some information will be incorporated by OEMs via maintenance documentations (MRB, AMM). If there are limitations on ELT usage and operation then specific notification may be incorporated in the OEM AFM.</p> <p>However, the operation of an ELT(A) is requested by OPS regulations (EU-OPS CAT.IDE.A.280), and not part of the airworthiness compliance. Therefore, instructions for the operation and for pre-flight and post-flight checks are derived from such operational regulations.</p> <p>AIRBUS considers the “Aircraft Flight Manual” in the context of this CM as the document the operator will provide to their flight crews. To avoid confusions with the OEM-AFM, it is suggested to use another term instead, e.g. “operator flight manual”.</p>	AIRBUS proposes to exchange the term Aircraft Flight Manual with operators flight manual.	Yes	Yes	Not accepted	<p>The term Aircraft Flight Manual and its acronym AFM is homogenously used across this CM. Its use is consistent with the reference to CS XX.1581 Aeroplane/Rotorcraft Flight Manual, and consequently, it was considered appropriate term. EASA considers that the AFM and its eventual supplements are the adequate documents to provide the information at stake. CAT.IDE.A.280 does not deal with design related requirements, including pre-flight and post-flight checks.</p>

Comment				Comment summary	Suggested resolution	Comment is an observation (suggestion)	Comment is substantive (objection)	EASA comment disposition	EASA response
NR	Author	Section, table, figure	Page						
32	Airbus Operations GmbH	3.1.5.	11	<p>The intention of paragraph following the sentence “AFMs, or STC supplements to AFMs, should also contain information on the location and deactivation of ELTs” is not conclusive.</p> <p>On one hand it makes sense that information on the location and deactivation of ELTs should be made available to accident investigators. However, AIRBUS does not support to include such information in the OEM-AFM, because the AFM is not the appropriate document for such information.</p>	AIRBUS proposes to remove this paragraph.	Yes	Yes	Not accepted	This recommendation is motivated by a Safety Recommendation that EASA has received. In some accident, when SAR located the wreckage and ELT transmission was not needed any more, it took a long time to locate the ELT and switch it off. During that period of time 121,5 MHz frequency was blocked by ELT transmission causing emergency service disturbance.
33	Airbus Operations GmbH	3.2.	11	<p>In section “3.2. Whom this Certification Memorandum affects:” AIRBUS proposes that some organisations should be added, because some tasks addressed by this CM are only relevant to them: Operators of aircraft with ELT/ADELT installed; and maintenance organisations that are in charge to perform maintenance checks and procedures on ELTs/ADELts.</p>	AIRBUS proposes to add: Operators of aircraft with ELT/ADELT installed; and maintenance organisations that are in charge to perform maintenance checks and procedures on ELTs/ADELts	Yes	Yes	Accepted	<p>The comment is accepted and the following text is added:</p> <p>“In addition, it could be of interest for aircraft operators and maintenance organisations when dealing with installed ELTs.”</p>
34	EAD Aerospace	3.1.1	9	<p>Use of fire resistant cable or insulation is recommended</p>	<p>This statement comes in addition to 25.1713 for EWIS requiring only use of Self-extinguishing insulation material. Even if only “recommended”, does it mean that EASA will only accept use of Fire Resistant material?</p>			Noted	<p>The aim of this recommendation is that the cable withstand exposure to fire, which can happen during or after an accident. It is addressed to all types of aircraft. In the case of large aeroplanes, this recommendation goes beyond CS 25.1713, as CS 25.1713(b) only requires EWIS components that are located in designated fire zones and are necessary during emergency procedures to be at least fire resistant; therefore it is deemed appropriate.</p> <p>The sentence has been amended to read:</p> <p>“In order to withstand exposure to fire, the use of fire resistant coaxial cable or the use of fire sleeves compliant to SAE AS1072 to protect the coaxial cable is recommended.”</p>