


EASA	COMMENT RESPONSE DOCUMENT
	EASA PAD No. 11-042 [Published on 19 April 2011 and officially closed for comments on 17 May 2011]

Commenter 1: EUROCOPTER DEUTSCHLAND GmbH – Martin Lawall – 20/04/2011
Comment # 1

Information regarding the ELT antenna 21-41 issue and its (potential) influence on the ARTEX ELT application has been received. In consequence the Chelton Service Bulletin addresses and limits the antenna topic only for the Kannad unit application. The ECD helicopters can be excluded in the Service Bulletin due to the use of only ARTEX ELT's.

EASA response:

Comment / question partially accepted.

For the ELT for which a satisfactory test for ESD protection has been provided, applicability of the Final AD has been amended accordingly (cf. reply to comment #3). The Final AD has also been amended to limit applicability to connected ELT without explicit ESD declaration protection (DO160 version D or later section 25 category A). However, this ESD protection has not been systematically declared by all ELT manufacturers. Therefore, it would be difficult for an operator to identify this ESD protection. On the other hand, it is not possible to determine all the ELTs that would have an ESD protection if this is not declared or reported by the manufacturer. The ELT manufacturers have been contacted. The result of this review is consolidated into the applicability of the Final AD.

The following text has been added: without ESD protection. ESD protection is identified by a declaration of category A of section 25 of DO160 version D change 3 (or later version) or of EUROCAE ED-14D (or later revision)).

Commenter 2: EASA – Friedhelm Runge– 22/04/2011
Comment # 2

COSPAS-SARSAT requires 1 test per month (a minimum of 6 months is required in EUROCAE ED62). The lifetime of the battery will be significantly reduced by doing the ELT auto-test on a daily basis instead of 1 per month. It can be estimated as running the auto-test 20 times more. However, discharging is also reduced. Therefore, it is wise indicating in the AD that the lifetime of the battery will be reduced.

EASA response:

Comment / question accepted.

Per EUROCAE ED-62 2.6.1.1, the self-test of the ELT contains a check of the instantaneous battery voltage. However, it is indeed recommended to insist on the resulting negative impact of this self-test on the lifetime of the battery. There is also another potential adverse effect of this self-test if it is not conducted properly. False distress alerts constitute a major obstacle to the efficient operation of search and rescue (SAR) services (cf. COSPAS-SARSAT C/S S.007 (http://www.cospas-sarsat.org/images/stories/SystemDocs/Current/S7_Sept2010.pdf page 183). It will be reminded to adhere to the guidelines of the ELT manufacturer to perform the self-test.

The following Note has been added into the Final AD:

- *Increasing the frequency of self-tests will significantly reduce the lifetime of the battery, compared to the performance documented in the ELT manual. The instructions of the ELT manufacturer must be followed to prevent false distress alerts*

Commenter 3: Inaer Aviation Italia – Alessandro Ernoli – 28/4/2011

Comment # 3

I need a clarification about the above mentioned PAD:

Chelton-Cobham SB 02/2011 is written for antenna p/n 21-41, s/n < 13000, only when installed with Kannad ELT.

PAD 11-042 seems to be written for all type of ELT if antenna p/n 21-41, s/n < 13000, is installed.

Is your intent to have all ELT checked regardless of the type? Did I understand correctly?

EASA response:

Comment / question accepted.

The commenter probably refers to an initial (unpublished) version of Chelton Ltd SB 02/2011, which was indeed limited to KANNAD ELT. However, the problem addressed by PAD 11-042 could occur with any ELT not having an ESD protection. This is now reflected in the published Chelton Ltd SB 02/2011 Issue 1 which is referenced in the PAD and available on the [Chelton website](#).

In order to check whether an installed ELT has ESD (electrostatic discharge) protection, it is advised to check the Declaration of Design and Performance (DDP) of the equipment. It should declare category A for section 25 of RTCA DO160D change 3 (or later version) or EUROCAE ED14D (or later version).

The reference of the DDP is published with the [ETSO authorisation](#). For FAA TSOs, it can be found in the EQF (Environmental Qualification Form).

These documents (DDP or EQF) can be obtained from the ELT manufacturer.

EASA have also received a test report which demonstrates that one ELT can be excluded. Other ELT manufacturers have been contacted for similar information.

The Applicability of the Final AD has been amended accordingly.

Commenter 4: ELTA – Claude Cresp – 06/05/2011**Comment # 4**

In reply to your query, the external antennas used with ELTA ELTs are not of a “capacitor” type like the antenna subject to the PAD. Therefore, this ESD issue is not relevant. However, there is an ESD protection on the ADT 406 ELTs (AF, P and S).

EASA response:

Comment accepted.

The following ELT units can be excluded:

- **ELTA ELT model ADT406²AF/AP-H, part number 01N65901 rev. (x), ETSO authorisation EASA.210.624**

The Applicability of the Final AD has been amended accordingly.

Commenter 5: Cobham Beacon Solutions – Thomas J. Pack – 16/05/2011**Comment # 5**

We at Artex had a concern regarding the proposed requirement to self test the ELT everyday prior to flight. The Artex ELT takes 30 seconds to self test. If this is done daily on a new ELT, the ELT would need a battery replacement after 120 days or 1 hour of operation. As you noted on the phone, EASA will include a statement about battery life in the PAD.

We provided evidence of satisfactory testing for ESD of some ELTs with the antenna subject to the PAD 11-042. There have not been any ESD field failures of the Chelton antenna with these Artex ELTs. Therefore, we would like to request of EASA to exclude these Artex ELT's from the PAD 11-042

EASA response:

Comment / question accepted.

For the comment regarding the battery lifetime, see reply to comment #2.

The following ELT units can be excluded:

- **CHELTON AVIONICS, INC DBA WULSBERG ELECTRONICS (formerly ARTEX) ELT model C406-N HM, part number 453-5061, ETSO authorisation EASA.IM.210.146 REV. A.**
- **CHELTON AVIONICS, INC DBA WULSBERG ELECTRONICS (formerly ARTEX) ELT model C406-N, part number 453-5060, ETSO authorisation EASA.IM.210.146 REV. A.**

The Applicability of the Final AD has been amended accordingly.