

## **EASA Safety Information Bulletin**

SIB No.:	2010-22
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Subject:	Crash Position Indicator CPI 503 series Emergency Locator Transmitter (ELT) - Limited Deployment Altitude
Ref. Publication:	Techtest Ltd Service Letter HRSSL-001 Issue 2, dated 03 March 2008
Applicability:	All aircraft equipped with Techtest Ltd. (doing business as HR Smith Group of Companies) Crash position indicator CPI 503 series Deployable Emergency Locator Transmitters Beacon, Part Number (P/N) 503-16 MOD 0, 1, 2 and 3, P/N 503-16LMD MOD 0, 1, 2 and 3.
	These transmitters are known to be installed on, but not limited to, the following aircraft:
	<ul> <li>Eurocopter Models EC 155 B1, EC 225 LP, AS 332 L1, AS 332 L2, AS 365 N2 and AS 365 N2 N3 helicopters,</li> <li>Eurocopter Deutschland EC 135 series helicopters,</li> <li>Agusta Westland A109 series, AB139 and AW139 helicopters, and</li> <li>Sikorsky S-61N, S-76 series and S-92A helicopters.</li> </ul> Note: P/N 503-16HT transmitters are not affected.
Description: High affe ejec EUF hard perf	High-altitude over-water dropping tests revealed that the affected units meet CAA UK specification 16 – operation after ejection 200 ft above water – but not the JTSO/ETSO-2C126 EUROCAE ED-62 specification, which includes impact onto a hard surface with 25 m/s test criteria, as initial testing had been performed using 'soft' ground. Analyses showed that the terminal impact speed – the
	maximum speed when falling in air – depends on altitude, air pressure, temperature, and humidity and is reached when dropping is performed at or above approximately 500 ft altitude Above Ground Level (AGL) under standard conditions. The calculated terminal impact speed is in the order of the ED-62 test criteria.

This is information only. Recommendations are not mandatory.

	Further analysis revealed that the resulting shock, generating the crash damage, is less predictable than assumed and potentially higher than the ones found during initial equipment qualification. A new CPI/ELT, P/N 503-16HT, has been developed and is qualified to overcome the above described deficiency.
	It is the intended function of deployable ELTs to be activated during the crash automatically, to be separated from the direct impact area, and sending the distress signal to the satellite. Manual activation is also foreseen to account for emergency situations which may have no impact. The search operation will use signal of the deployed ELT as reference. Consequently, it is important to have little separation between the deployed ELT and the aircraft. Otherwise the search will not be successful or at least will likely last longer than necessary.
	Today there are no certification criteria to verify that ELT deployment can be performed at any altitude above ground as for practical reasons, no high altitude dropping is expected to be performed. Consequently, the ELT deployment should not be activated manually when flying higher than 200 ft AGL.
Recommendations:	The purposes of this EASA Safety Information Bulletin (SIB) are to:
	<ul> <li>inform pilots that activation of deployable ELTs should be performed only shortly before ground contact and not at high altitudes.</li> </ul>
	- recommend manufacturers of deployable ELTs and installers that they should review the description of the system use as provided in the Operation Manual, the system description of the Aircraft Flight Manual, or the Aircraft Operating Manual (whatever is applicable) in relation to the above.
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