



*"Saving Lives"*

**Comparison between TSO C91a and TSO C126 ELTs**

	<b>C91a ELT – 121.5 MHz</b>	<b>C126 ELT – 406 MHz</b>
Location Accuracy (without GPS)	12 Miles	2 Miles
Signal Power	0.1 Watt	5 Watts
Signal Type	Analog	Digital
Alert Time	2 Hours	Instantaneous
GPS Location Accuracy	None	100 Meters
Coverage	Both ground station and ELT must be in the same satellite footprint, coverage is about 2/3 of World	Global
False Alerts	Satellites cannot differentiate between ELT signals or signals from non-beacon sources due to the fact there is not a source identifier associated with the 121.5 MHz signal. Non-beacon sources can be ATM machines, pizza ovens, and stadium scoreboards. Fewer than two in 1,000 alerts and 2 within 100 composite alerts are actual distress calls. Due to the fact 121.50 MHz ELT do not transmit with a signature, often resources must be dispatched to verify the alert, a costly venture.	All alerts are generated from the 406 MHz ELTs. Satellites process only ELTs that transmit data (15 digit Hex ID). On Average, one in twelve alerts is an actual distress call. 90% of 406 MHz ELTs unique 15 digit Hex ID codes are registered. About 70% of false alerts are resolved by a phone or radio call to the registered owner.
Alerting	High false ELT alerts make a first-alert launch unfeasible. No GEO detection capability, no instantaneous detection.	First alert warrants launch of rescue assets. Earlier launches puts assets on the scene sooner, average 3 hours saved maritime and 6 hours on land. Average subsequent satellite passes occur every hour with near instantaneous detection by geostationary satellites providing world-wide coverage. Aircraft ID, POC is provided to the rescue team.
Location Target	Initial position result is 500 square miles search area on average. No GPS capability.	Excellent alert (non-GPS) position accuracy within about 25 square miles. Most also include 121.50 MHz transmissions.