

406 MHz Emergency Locator Transmitter (ELT)



An **Emergency Locator Transmitter (ELT)** is a device that can be manually or automatically activated to transmit a distress signal to a satellite. ELTs that activate automatically use a "G-Switch" (gravity switch) that triggers the ELT when it senses that a crash has occurred.

ELTs are emergency transmitters that are designed to transmit a distress signal on 121.5, 243.0 and 406-megahertz frequencies in the event of an aircraft accident .

With **ELTs**, Search and Rescue teams may more easily pin-point the exact location of a crashed aircraft. Section 1.820 of the EASA EU-OPS states that no person as well as operators may operate an EASA registered civil aircraft unless an approved 406MHz automatic type emergency locator transmitter is installed to the aircraft.

Similar regulations are established by aviation authorities' through-out the world. TSO C-126 prescribes the minimum performance standard that an **ELT** operating on 406.0 Megahertz must meet as well the requirement for the aircraft owner to register the digital message programmed into the ELT with Cospas/Sarsat. TSO C-126 approved **ELTs** will also transmit on 121.5 MHz frequency, however satellite alerting of the 121.5 MHz distress signal was discontinued after **February 1, 2009**.

Implementation date

1st of January 2005

1st of February 2009 end of satellite coverage for 121.5MHz

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Considerations and Advantages

When the 406 MHz ELT is connected to a navigation source the location accuracy is 0,1 km. Satellites can locate a 406 MHz ELT without navigation interfaces within about two kilometers. That is ten times more precise than with 121.50/243.00 signals, and can cut down the search area by a factor of 100. The average time to find an aircraft with a 406 Mhz ELT is around 4 hours, versus 10 to 15 hours with the old system.

Operating with a 121.5/243 MHz ELT after the deadline presents additional risks to pilots and passengers if a crash occurs, especially in remote areas. Essentially, someone who crashes while flying without a flight plan will depend on someone else too.

Every moment lost after an aircraft crash is a moment closer to a loss of life.

Technical Validation/Certification

- Evaluation of existing equipment for a retrofit or new installation
- EASA Certification, under the Gate V Aircraft Maintenance DOA to gain airworthiness compliance.

**Interested in
certification and installation?**

**e-mail us at
customer.support@gateV.at**

**or call our
Engineering Team
at
+43 1 7007 32025
mo – fr / 0800H – 1700H**