



A Pilot's Guide to ELTs

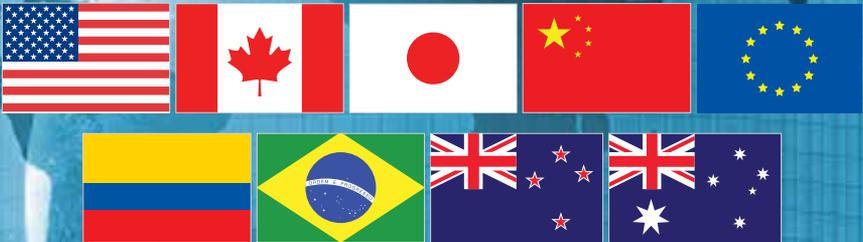


It is necessary to register your ELTs with your local government

If you purchase a new or a used 406 MHz beacon you **MUST** register it with the responsible organization or government agency. If you change any information on your registration (such as phone number, address, bought a new aircraft, etc.) you **MUST** update the 406 MHz beacon registration. Also, if you sell your 406 MHz beacon, notify your government agency that you have done so, and remind the buyer to register the beacon for themselves. Otherwise, you may be contacted by rescue authorities if it is activated! Please provide the new owner a link to our registration web page so they can register the beacon.

**Please Do Your Part To Help Us,
So That We Can Help You!**

www.acrartex.com/support/registrations/



How a 406 MHz ELT Rescue Works

3 ways to activate



Remote switch activation



Flipping the switch on the ELT



ELT senses crash & automatically activates



Beacon sends 15-digit Unique Identification Number (UIN, also known as Hex ID) signal to Cospas-Sarsat satellites



The signal is routed to a ground station, Local User Terminal (LUT) and transferred to the Mission Control Center (MCC)



MCC gathers this information and passes it to the Rescue Coordination Center (RCC)

The RCC uses the beacon's registration information to verify the emergency and notify local Search and Rescue (SAR) forces



Local Search and Rescue forces are deployed to your location

Why upgrade to a 406 MHz ELT?

Your life depends on it!

Flying Today's Aircraft on Yesterday's ELT?

If you're flying without a modern 406 MHz ELT in the cockpit, you're flying in "stealth mode", undetectable to the Cospas-Sarsat Search and Rescue Satellite Constellation.

That's because Cospas-Sarsat has terminated satellite processing of distress signals from 121.5 MHz beacons. So, in a ditch situation, the worldwide network of rescue satellites can't "see" you — when you need them most!

The 406 MHz transmitter produces a much more accurate position, typically 3 kilometers as compared with 15 to 20 kilometers for 121.5 MHz transmitters. When coupled to the aircraft navigation system via a navigation interface, the ELTs accuracy improves to approximately 100 meters.



	406 MHz ELT	121.5 MHz ELT
Position Accuracy	1-3 NM (2-5km) 100m with GPS	Will not alert position to rescue forces. Can be used for homing.
Coverage	Global	only if someone is listening on 121.5 MHz within a few miles of crash location
Alerting	Near instantaneous by the GEOSAR Satellites in the Constellation	No alerts are received by satellites.
Output Power	5 Watts Powerful signal for improved accuracy	0.1 Watts

It is important to note that existing 121.5 MHz ELTs, although still legal from the FAA's perspective, will provide extremely limited assistance if an aircraft crashes, especially in a remote location.

What is the difference?

	 406 MHz ELT	 406 MHz PLB
Registration	Registered to the aircraft	Registered to the person
Transmission Requirements	406 MHz Minimum: 24 hours @ -4°F (-20°C) <hr/> 121.5 MHz Minimum: 48 hours @ -4°F (-20°C)	406 MHz Minimum: 24 hours @ -4°F (-20°C) <hr/> 121.5 MHz Minimum: 24 hours @ -4°F (-20°C)
Activation	Either manually activated or in the event of a crash the ELT's G-Switch will automatically activate the beacon	Manually activated
Mounting options	Mounted in the aircraft with a remote switch for activation located in the cockpit	Mounted on person for easy access
Regulations	FAR 91.207 No person may operate a U.S.-registered civil airplane unless there is attached to the airplane an approved automatic type ELT that is in operable condition.	Does NOT meet the FAA requirements for automatic activation and can not be used in place of an ELT

For pilots, an ELT is the best beacon to have. They are designed for the rough and tough life of living on an aircraft and the abuse that comes with flying. They are also designed to automatically activate in an emergency. PLBs are a great beacon, but they are predominantly considered in the aviation industry as a back-up to an ELT.

Both require registration. It's quick, easy, and free, and can be done online:

<http://www.acartex.com/support/registrations>

ELT comparison

			
Product Name	ELT 1000	C406 -1 C406 -2	C406-N
Best Application	General Aviation	Commercial Business Jet Aviation	Commercial Business Jet Aviation
406 MHz Freq.	5W +/-2dB @ 406 MHz	5W +/-2dB @ 406 MHz	5W +/-2dB @ 406 MHz
121.5 MHz Freq.	100mW @ 121.5 MHz	100mW @ 121.5 MHz	100mW @ 121.5 MHz
243 MHz Freq.	N/A	100mW @ 243 MHz	100mW @ 243 MHz
GPS	GPS Interface	N/A	GPS Interface
Aircraft Power Required	No	Yes	Yes
Size	6.59 X 2.86 X 3.69 in. (167 x 73 x 94mm)	11.74 x 3.9 x 3.82 in. (298 x 99 x 97mm)	11.74 x 3.9 x 3.82 in. (298 x 99 x 97mm)
Weight	2.2 lbs (1 kg)	4.7 lbs (2.02 kg)	4.7 lbs (2.02 kg)
Battery, Class	LiSO2 Class 9	LiMN02 Class 9	LiMN02 Class 9
Battery Replacement Interval	6 Years	5 Years	5 Years
Operational Lifetime	24 Hours For 406 MHz 48 Hours for 121.5 MHz	24 Hours for 406 MHz 48 Hours for 121.5 MHz	24 Hours for 406 MHz 48 Hours for 121.5 MHz
Material	Polycarbonate	Polycarbonate	Polycarbonate
Color	Safety Yellow	Orange	Orange
ELT Class	Automatic Fixed (AF)	Automatic Fixed (AF)	Automatic Fixed (AF)
Activation	Manual, Remote Switch or G-Switch	Manual, Remote Switch or G-Switch	Manual, Remote Switch or G-Switch
G-Switch	Single Axis G-Switch	Single Axis G-Switch	Single Axis G-Switch
Operating Temp.	-20°C to +55°C	-20°C to +55°C	-20°C to +55°C
Storage Temp.	-55°C to +85°C	-55°C to +85°C	-55°C to +85°C
Limited Warranty	30 mo Installation or 24 mo date of Man.	30 mo Installation or 24 mo date of Man.	30 mo Installation or 24 mo date of Man.
Compatible with 406Test.com's online Satellite Testing Service?	Yes	Yes	Yes
Helicopter Model	N/A	Yes	Yes

Antenna Selections



Blade

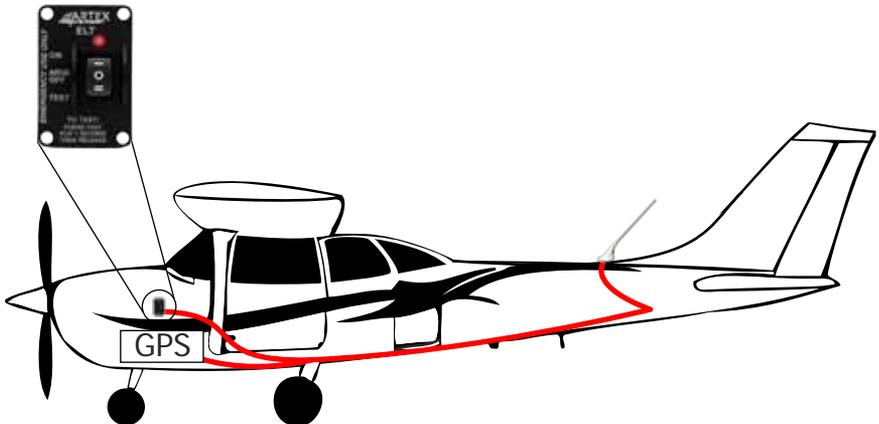


Rod



Whip

Remote Switch



ELT installations must be approved by local approval authorities.

Things to know

- Recommended to have a certified technician install.
- ELT should be mounted on the load bearing portion of the aircraft.
- Do not mount on the skin of aircraft.
- ELT & antenna should be mounted as close together as possible.
- Ensure step-by-step instructions in the manual are followed.

What's required?

Aircraft Owners May

- Perform monthly self test in accordance with the ELT owners manual.
- Replace the ELT battery per instructions from the manufacturer.

Aircraft Owners May Not

- Install/test/inspect/sign off the ELT per 91.207 because it doesn't fall into the allowable preventative maintenance that owner can do.
- The person performing the 100hr/annual must inspect for proper installation and proper operation of miscellaneous items. You must be an A&P to do the 100 hr and ICA instruction for continued air worthiness.
- Each Emergency Locator Transmitter must be inspected within 12 calendar months after the last inspection for
 - (1) Proper installation.
 - (2) Battery corrosion.
 - (3) Operation of the controls and crash sensor
 - (4) The presence of a sufficient signal radiated from its antenna.

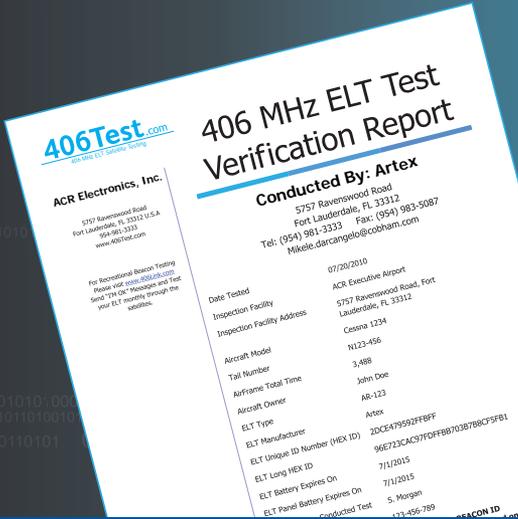
An ARTEX Exclusive

Request the best at your next annual inspection!

- Complete through-the-satellite confirmation test.
- Ensure the ELT installation & cabling connections were installed properly.
- Satellite verification.
- Meets FAR 91.207

406 MHz self-test signal from ELT

Artex ground stations instantly alert inspectors via email / text messages



ELT Satellite Self-Test





THE SCIENCE OF SURVIVAL



scan with phone