

# GA's input to the international ELT/tracking debate

**By Frank Hofmann, IAOPA Representative to ICAO and COPA Director**

Since I will be attending IAOPA's European Regional meeting at the time of this Multi-Disciplinary meeting on Global Tracking, I would nevertheless like to provide input from the GA user perspective.

In summary, IAOPA's position regarding ELTs has been:

- As IAOPA has maintained since 2002, the ICAO mandate for ELTs has inhibited the development of better alternative technology through the SARP's use of limiting language.
- The August 2005 ELT Task Force offered false alarm statistics that appeared to be all maritime related.
- The costs claimed in the Task Force Report for low-end ELTs for GA aircraft of under \$1,000 were not and are not realistic. Whereas 406 ELTs for under \$1,000 are available, repair shops have discovered that these units often cannot be repaired upon recertification and must be discarded.
- The reported failure rate of the 121.5 MHz units was in the order of 80% in Canada. The failure rate of the newer 406 Mhz units has not been established yet. Although the 406 units may provide better position reports, the reason for their failure may be the same as was for the 121.5 units. Units are improperly installed, not switched on, not registered, have their antenna connections severed in a crash or otherwise fail to activate. The paradigm of requiring a device to work after a crash is inappropriate.
- Of the recent airline accidents involving airliners – the Air France overrun in Toronto, the Air France accident off the coast of Brazil, and the recent Malaysian accident – no ELTs activated. Each of these aircraft were equipped with somewhere near 11 ELTs, counting the ones attached to life rafts. Clearly the ELT should be considered a failed technology and to have been based on an improper paradigm. The high false alert Search and Rescue costs associated with the ELT paradigm are the result, partially, of requiring all aircraft to be equipped with ELTs, regardless of their operating environment.
- Many GA pilots have preferred to rely on tracking devices, "SPOT" and "Spider Tracks" for example, designed to report the aircraft's position and track to friends, family and authorities. A link to an explanation of how these systems work can be found at the following links:
  - <https://www.dropbox.com/s/77kijvwvhbp18nf/kp14024.pdf>
  - <http://www.findmespot.ca/en/index.php?cid=100>
- Any new wording proposed for Search and Rescue requirements should be restricted to commercial airliners.
- New wording should exclude the mandatory carriage of ELTs on Private aircraft operations of aircraft with a mass less than 5,700kg.
- In lieu of mandating specific equipment, ICAO policy should take a performance-based approach to aircraft emergency alerting. An approach that allows and promotes multiple options or combinations of

options such as the use of Personal Locator Beacons or other portable devices and commercial services for alerting is better than requiring one specific technology that may grow outdated as technology progresses.

- Mandating a specific technology for general aviation (such as 406 MHz ELTs) will stunt the development of future emergency technology.
- Mandating specific equipment sets up the trap of forcing aircraft owners to purchase new equipment each time the technology is updated or new technology is developed. It also precludes and disincentives pilots and owners from using new technologies—even though the technology may be better suited to their flight operations—simply because it doesn't meet the “regulatory requirement.”As well, technology manufacturers are likely not to invest in the research and development of new and more efficient technologies when ICAO standards mandate the use of older technology. In the interest of safety, the Search and Rescue community should use all available signals, not just one, and it should encourage pilots' use of alternative, affordable technology. This is best accomplished by allowing the use of any alternate technology so long as it meets certain performance-based standards—not by mandating the use of one, already-aging product. Safety is not advanced by promoting reliance on one system to the exclusion of all possible helpful technologies.
- In contrast, other technology is far more useful for locating aircraft in the types of emergencies that actually occur - such as cell phones or Personal Locator Beacons. This fact is demonstrated in the review of the 13 incidents that occurred in the United States and are listed by the SARSAT community as “saves” in 2012. In reading the textual reports provided, eight of the thirteen “saves” are actually directly attributable to Personal Locator Beacons carried voluntarily by pilots. And given the superior and superseding technologies available or soon to hit the market, such as ADS-B, the debate over which frequencies ELTs should transmit over is flawed from the start.
- Any eventual SARPs should permit alternative and affordable technologies, such as tracking, in place of the ELT.