



ICAO BANGKOK

UNITING AVIATION

ICAO Aircraft Address in Search and Rescue Applications

Workshop on ICAO Aircraft Address and Target Identification in
Surveillance Data and Flight Plan

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ICAO Aircraft Address Allocation/Configuration Issues

- Regulators not correctly allocating Aircraft Address to airframes?
 - Certificate of Registration
 - Persistent problem?
- Aircraft Operators not correctly configuring Aircraft Address?
 - Persistent problem?
 - Mode S SSR transponders
 - ADS-B transmitters (if separate)
 - Datalink applications
 - Others?
 - **Emergency Locator Transmitters**



ICAO Aircraft Address in ELT and ELT(DT)

- Asia/Pacific Search and Rescue Working Group (APSAR/WG)
 - APSAR/WG/8, 22 – 25 May 2023
 - Cospas-Sarsat system, 406 MHz ELT and deployment of ELT(DT)
 - *Emergency Locator Transmitter*
 - *Emergency Locator Transmitter (Distress Tracking)*
 - Global Aeronautical Distress and Safety System (GADSS)
 - Autonomous Distress Tracking (ADT)
 - applicable from January 2025
 - ADT-equipped aircraft (e.g. Airbus, Boeing) being delivered from Q3 2023
 - ICAO Location of an Aircraft in Distress Repository (LADR)
 - ICAO Doc 10054 – *Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery*



ICAO Aircraft Address in ELT and ELT(DT)

- Annex 10 Vol III – *Communications Systems* Appendix to Chapter 5
 - The ELT operating on 406 MHz shall have the capacity to transmit a programmed digital message which contains information related to the ELT and/or the aircraft on which it is carried.
 - The ELT digital message shall contain either the transmitter serial number or one of the following elements
 - 24-bit aircraft address

Note: a detailed description of beacon coding is contained in Specification for COSPAS-SARSAT 406 MHz Distress Beacons

ICAO Aircraft Address in ELT and ELT(DT)

- Cospas-Sarsat Specifications for ELT(DT)

ELT(DT) Design

- ICAO: ADT is performance based and non-technology specific



Airbus, Boeing, Bombardier, and Embraer (OEMs) have selected the ELT(DT) to satisfy:

- ICAO Annex 6 - GADSS recommendations
- European operational requirements (see ED-237).

ELT(DT) Design

- Coded with ICAO 24-bit address and Operator 3LD



Guidance to ATS and RCC

- Study the basic event information provided in the ELT (DT) message:
- provides "**flag**" **State of the aircraft** decoded from the **ICAO 24-bit address**.....



ICAO Aircraft Address in ELT and ELT(DT)

- **Summary:**
 - 406 MHz ELTs may be configured to transmit ICAO Aircraft Address (Annex 10)
 - ELT(DT) devices are configured to transmit ICAO Aircraft Address in ADT notifications
 - Importance of correct allocation of Aircraft Address (Certificate of Registration)
 - Importance of correct configuration of Aircraft Address in ELT and ELT(DT) devices on aircraft



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