

Module 2

Autonomous Distress Tracking (ADT) Overview

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ICAO



Many stakeholders!
ADT can greatly assist SAR in the oceanic regions and remote land regions (limited ATC surveillance)

Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes

6.18 LOCATION OF AN AEROPLANE IN DISTRESS

- 6.18.1 All aeroplanes of a maximum certificated take-off mass of over 27, 000 kg for which the individual certificate of airworthiness is first issued on or after 1 January 2023, shall autonomously transmit information from which a position can be determined by the operator, at least once every minute, when in distress, in accordance with Appendix 9.

ADT details

- Specific type of device but not technology-specific
- New-built aircraft starting 1 January 2023 but could be installed earlier
- For aircraft in flight
- Requirement is for the aircraft operator (company) to receive the information
- Intent was to retain Annex 11 alerting process

ADT details, continued

- ICAO is establishing the ‘location of an aircraft in distress repository (LADR)’ to store ADT messages
- LADR would **notify** operator, ATS unit and RCC it has ADT message – LADR does not send the ADT message
- ELT(DT) message goes to RCC **and** the LADR
- ATS culture can be different from SAR culture
 - Notification vs alert
 - in flight emergency vs SAR

ATS culture and SAR culture - Edwards

- ATS often views in flight emergencies as not distress until ‘not in the air’ – focus on (1) aviate, (2) navigate, and (3) communicate.
- ICAO perspective is that ADT device provides notifications, not a distress alert.
- In general, SAR prefers to anticipate a need to plan and “can call back the response”.
- Discuss



ADT components for discussion

1. ADT device and message – the ELT(DT)
2. Supporting infrastructure - LADR and OPS Control Directory
3. Operational procedures among stakeholders
4. Message distribution: Cospas-Sarsat Mission Control Center

The Way Forward

- You now have a general understanding of ADT.
- IAMSAR Manual, Volume II, Appendix V, provides a comprehensive overview of ADT.
- Stakeholders need to develop common procedures and practices.



Why we are concerned -

- We all hope that aircraft accidents do not happen often. When accidents happen, history has shown that States, companies and organizations suffer high consequences.
- Proper preparation to make use of ADT will improve the success for all stakeholders and save lives of our citizens.

