ICAO NACC SAR/TF/03

Agenda Item 3

Autonomous Distress Tracking (ADT) Update

U.S. Coast Guard

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 **As of 1 January 2025**, 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 2024**, 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.

Documents applicable for ADT implementation

- Annex 6 (discussed on previous slide)
- IAMSAR Manual 2022 edition:
  - Volume I Appendix G
  - Volume II Appendix V
- ICAO Document 10165 Manual on the Global Aeronautical Distress and Safety System (2023)

We are talking about ADT not Aircraft Tracking

- Do not confuse ADT with aircraft tracking

- Aircraft tracking is a different ICAO requirement for the operator and applicable since 2018

- Operator tracks the position of its aeroplane at least every 15 minutes where an air traffic service unit obtains position information at greater than 15 minute intervals

- ADT is activated when aeroplane is in distress

ADT details

- Specific type of device but not technology-specific
- New-built aircraft starting 1 January 2024 but likely installed starting 2023
- 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".

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

Operations Control Directory (OPS CTRL)

1. ICAO's single global database of contact details for ATS units and operators. Soon RCCs will be part of this and gain access

2. Access to OPS CTRL will lead to access to the LADR

3. Contact your State aeronautical focal point to provide your contact details and gain access

4. More guidance will be in ICAO Doc 10165.

Location of an aircraft in distress repository (LADR)

1. LADR often pronounced as "Ladder"
2. LADR is a geographic display showing an icon for each ADT notification in the flight information region
3. ADT and other information is sent to the LADR
4. LADR should be available for testing along with guidance in late 2022 and operational in early 2023
5. Guidance will also be in ICAO Doc 10165

ICAO Montreal State letter 27 April 2022

1. Letter to all States proposes amendments to ICAO Annex 11 and 12. Reply due by 27 October 2022

2. Annex 11 proposed amendment has specific requirement and guidance on ATS contact details in Ops Control Directory

3. Annex 12 proposed amendment requires RCCs to maintain contact details in the Ops Control Directory and to subscribe and maintain access to the LADR

The Way Forward

- You now have a general understanding of ADT.

- The 2022 edition of the IAMSAR Manual, Volume II, Appendix V, provides a comprehensive overview of ADT and a flowchart.

- 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.