



ICAO

International Civil Aviation Organization

Tenth Meeting of the ICAO Asia/Pacific Search and Rescue
Work Group (APSAR/WG/10)

Siem Reap, Cambodia, 27 – 30 May 2025

Agenda Item 4: Asia/Pacific and Inter-regional SAR Planning, Coordination and Cooperation

ASIA/PACIFIC REGIONAL IMPLEMENTATION FOR AUTONOMOUS DISTRESS TRACKING

(Presented by the Secretariat)

SUMMARY

This paper presents the survey results of the Asia/Pacific regional implementation for the Autonomous Distress Tracking (ADT) applicability.

1. INTRODUCTION

1.1 Following the Amendment 48 to Annex 6 *Operation of Aircraft Part I*, adopted by the Council of ICAO on 18 July 2022, regarding the applicability of Standard for the location of an aeroplane in distress, with an applicability date of 01 January 2025.

1.2 The ICAO Asia/Pacific Regional Office organised the Global Aeronautical Distress and Safety System (GADSS) Workshop, held on 23 May 2022 in conjunction with the APSAR/WG/7 meeting. A pre-workshop poll revealed that more than 50% of respondents had indicated their knowledge of the GADSS topic was either ‘low’ or ‘none’.

1.3 In addition, ICAO Asia/Pacific Regional Office had circulated the Survey on State Readiness for Autonomous Distress Tracking (ADT) through State Letters T 3/9.13, T 3/10.1 – AP128/22 (ATM) dated 13 September 2022, and T 3/9.13, T 3/10.1 – AP143/23 (ATM) dated 24 October 2024, to gauge States’ readiness to receive and process ADT notifications.

2. DISCUSSION

Background

2.1 Last year’s APSAR/WG/9 meeting noted the results of the status of APAC Administrations of their readiness and concluded that most of the APAC Administrations are not fully ready for the planned ADT applicability with various tasks listed in the survey that have yet to be complete. Therefore, this year’s implementation survey (**Attachment A**) presents the latest status of the to assess the implementation status from States/Administrations in receiving, processing and managing ADT notifications.

2.2 A total of 14 Administrations responded to the 2025 survey, a decrease as compared to the previous survey (received as of 29 April 2025). **Attachments B** and **C** listed the survey response and comments by APAC Administrations respectively. Overall response results of the survey showed that majority of respondents are still in progress of implementing the ADT applicability in **Figure 1**. The average number of items marked “Yes” is 48 % (decreased from 51%).

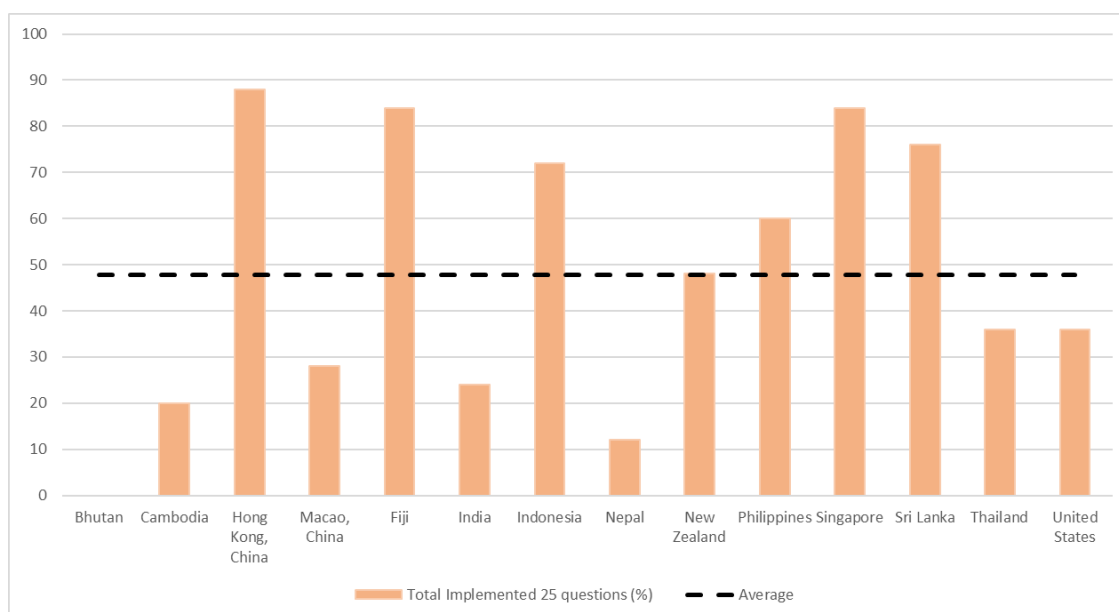


Figure 1: Overall Responses Rate for All Questions in the Survey

2.3 Further analyses are shown in the four categories (1. State, 2. Aircraft Operator, 3. SAR Service Provider and 4. Air Navigation Service Provider) used in the survey based on the responses from 14 APAC Administrations.

State

2.4 In this category, the rate of response is shown in **Figure 2** with an average rate of 44% (decreased from 50%).

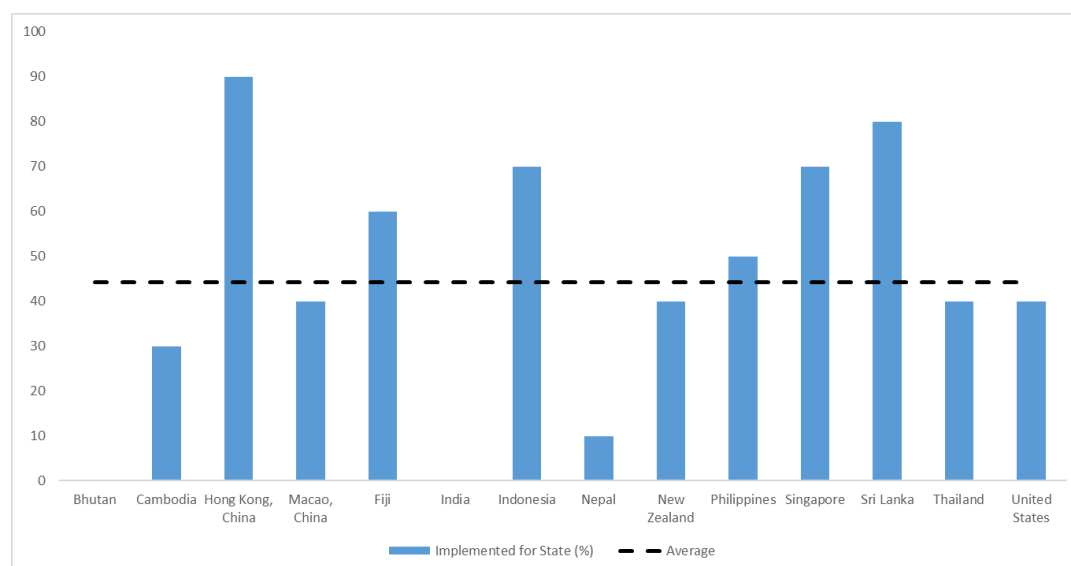


Figure 2: Rate of Response Category – State

2.5 The question with highest score (71% increased from 65%) which is consistent with the previous survey: Qn #2 – *Taken action to ensure and facilitate the registration of all relevant State organizations in the OPS CTRL Directory including ANSP and aircraft operators.*

2.6 Questions with lowest score (21%):

- a) Qn #5 – *If applicable, implemented processes for applications of special exemptions for aircraft operators, on compliance to Annex 6 Section 6.18; and*
- b) Qn #9 – *Incorporated ADT considerations in procedures and manuals for safety oversight of ANSPs and SAR service providers and aircraft operators.*

2.7 Two other survey questions (Qn #8 and Qn #10 in the State Category) registered only a score of 29%:

- a) Qn #8 – *Incorporated procedures for response to ADT notifications for ANSP, SAR service provider and aircraft operators.*
- b) Qn #10 – *Published and promulgated educational material on ADT for aircraft operators, air traffic service (ATS) unit, Rescue Coordination Centre (RCC) personnel and other necessary stakeholders.*

Aircraft Operators

2.8 The average rate of response was 31% (increased from 27%). Three out of the five questions in this category had less than 30% of response rate.

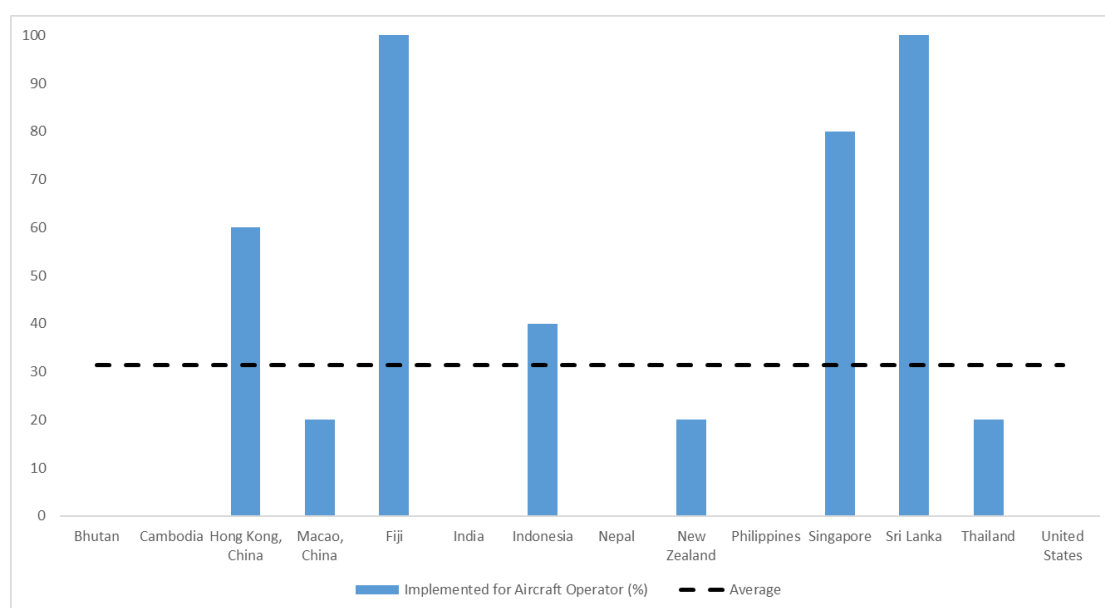


Figure 3: Rate of response Category – Aircraft Operator

2.9 Question with highest score (57% increased from 53%): Qn #1 – *Registered in the ICAO OPS CTRL Directory.*

2.10 Questions with lowest score (14% decreased from 18%):

- a) Qn #5 – *Trained flight despatch and other relevant personnel to understand ADT notifications and ELT(DT) alerts (according to fleet equipage), and to execute ADT procedures accordingly.*

Search and Rescue Service Provider (RCC/RSC)

2.11 In the category of SAR service provider, the average rate of response was 63% highest amongst the four categories recorded (increased from 60%).

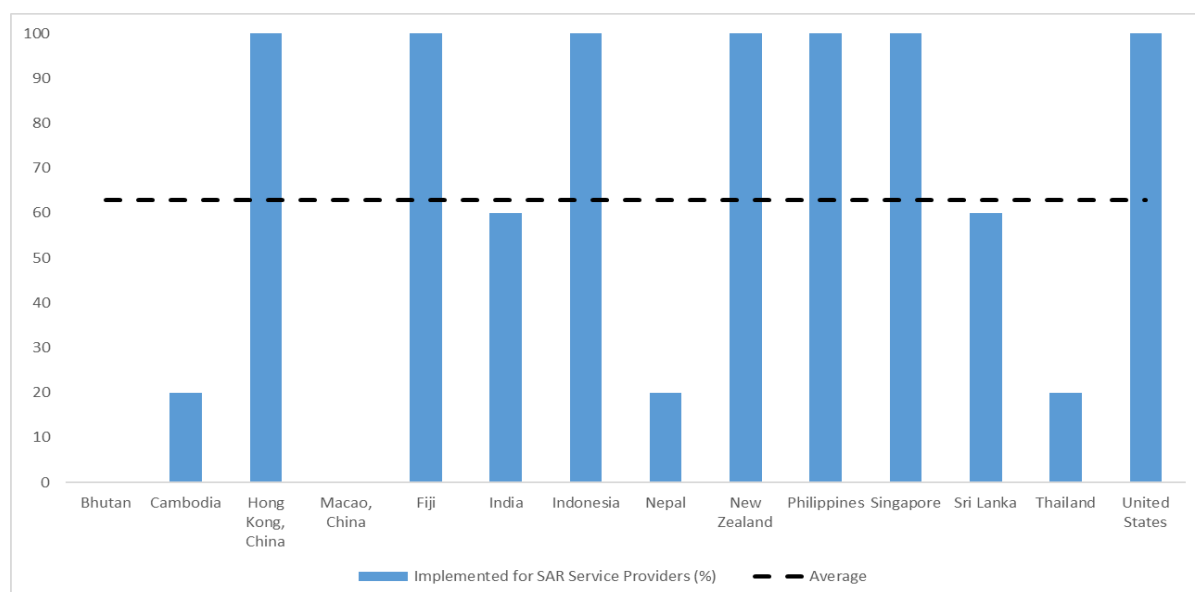


Figure 4: Rate of response Category – SAR Service Provider

2.12 Question with highest score (86% increased from 79%): Qn #1 – *Registered in the ICAO OPS CTRL Directory for RCCs*.

2.13 For Qn #3 – *Ensured State RCCs will have the capability to receive LADR notifications and access the LADR to obtain further ADT notification information and data*. The score had decreased to 64% (71% previous year).

2.14 Questions with lowest score (50% increased from 47%): Qn #4 – *Implemented procedures for the response to ADT notifications and coordination with ATS units* and Qn#5 – *Trained SAR personnel to understand ADT notifications and ELT(DT) alerts, and to execute ADT procedures accordingly*.

Air Navigation Service Providers

2.15 The average rate of response was 56% (increased from 51%).

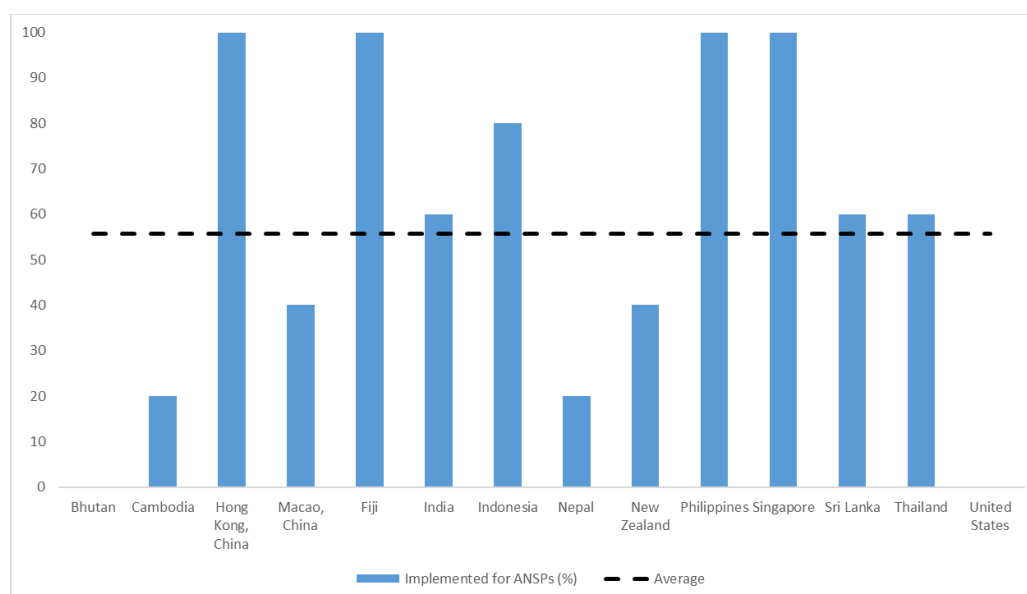


Figure 5: Rate of response Category – ANSP

- 2.16 Questions with highest score (79 % increased from 59%):
- a) Qn #1 – *Registered in the ICAO OPS CTRL Directory when this is commissioned for RCCs;*
- 2.17 Questions with lowest score (43%):
- a) Qn #5 – *Trained relevant ATS personnel to understand ADT notifications and ELT(DT) alerts, and to execute procedures accordingly.*
- 2.18 In conclusion, majority of APAC Administrations have not fully ready implemented the ADT applicability with various tasks listed in the survey that have yet to be completed.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
- a) note the information contained in this paper;
 - b) urge States/Administrations to step up efforts to conduct the various actions required for ADT implementation such as:
 - i) incorporate ADT considerations in procedures and manuals for safety oversight and procedures for response to ADT notification of ANSPs and SAR service providers and aircraft operators;
 - ii) train relevant personnel to understand ADT notifications and ELT(DT) alerts, and to execute procedures accordingly; and
 - c) discuss any relevant matters as appropriate.
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SURVEY ON STATE'S IMPLEMENTATION FOR AUTONOMOUS DISTRESS TRACKING (ADT)

STATE		
Check the box if State has:		
1.	<input type="checkbox"/>	Registered a State Focal Point in the ICAO OPS CTRL Directory (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/).
2.	<input type="checkbox"/>	Taken action to ensure and facilitate the registration of all relevant State organizations [i.e. air navigation service provider (ANSP), search and rescue (SAR) service provider and aircraft operators] in the OPS CTRL Directory.
3.	<input type="checkbox"/>	Taken action to ensure the required operational contact details are recorded in the OPS CTRL Directory for ANSP, SAR service provider and aircraft operators.
4.	<input type="checkbox"/>	Implemented regulations, for aircraft operators, on compliance to Annex 6 Section 6.18.
5.	<input type="checkbox"/>	If applicable, implemented processes for applications of special exemptions for aircraft operators, on compliance to Annex 6 Section 6.18.
6.	<input type="checkbox"/>	Ensured relevant stakeholders are subscribed to Location of an Aircraft in Distress Repository (LADR) notifications.
7.	<input type="checkbox"/>	Ensured relevant stakeholders implemented the capability to receive LADR notifications and access the LADR, to obtain further Autonomous Distress Tracking (ADT) notification information and data.
8.	<input type="checkbox"/>	Incorporated procedures for response to ADT notifications for ANSP, SAR service provider and aircraft operators.
9.	<input type="checkbox"/>	Incorporated ADT considerations in procedures and manuals for safety oversight of ANSPs and SAR service providers and aircraft operators.
10.	<input type="checkbox"/>	Published and promulgated educational material on ADT for aircraft operators, air traffic service (ATS) unit, Rescue Coordination Centre (RCC) personnel and other necessary stakeholders.

AIRCRAFT OPERATORS		
Check the box if relevant State-based Aircraft Operators have:		
1.	<input type="checkbox"/>	Registered in the ICAO OPS CTRL Directory (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/).
2.	<input type="checkbox"/>	Subscribed to LADR notifications.
3.	<input type="checkbox"/>	Implemented the capability to receive LADR notifications and access the LADR, to obtain further ADT notification information and data on their aircraft.
4.	<input type="checkbox"/>	Developed procedures for the initial aircraft operator response to ADT notifications and for informing appropriate ATS Units of the outcome of ADT validation checks.
5.	<input type="checkbox"/>	Trained flight despatch and other relevant personnel to understand ADT notifications and to execute ADT procedures accordingly.

SAR SERVICE PROVIDER (RCC/RSC)		
Check the box if the SAR Service Provider has:		
1.	<input type="checkbox"/>	Registered in the ICAO OPS CTRL Directory for RCCs (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/).
2.	<input type="checkbox"/>	Subscribed to LADR notifications.
3.	<input type="checkbox"/>	Ensured State RCCs implemented the capability to receive LADR notifications and access the LADR, to obtain further ADT notification information and data.
4.	<input type="checkbox"/>	Implemented procedures for the response to ADT notifications and coordination with ATS units.
5.	<input type="checkbox"/>	Trained SAR personnel to understand ADT notifications and ELT(DT) alerts, and to execute ADT procedures accordingly.

AIR NAVIGATION SERVICE PROVIDER		
Check the box if the ANSP has:		
1.	<input type="checkbox"/>	Registered in the ICAO OPS CTRL Directory (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/).
2.	<input type="checkbox"/>	Subscribed to LADR notifications.
3.	<input type="checkbox"/>	Ensured ATS units implemented the capability to receive LADR notifications and access the LADR, to obtain further ADT notification information and data.
4.	<input type="checkbox"/>	Implemented procedures for the response to ADT notifications and coordination with aircraft operators and RCCs.
5.	<input type="checkbox"/>	Trained relevant ATS personnel to understand ADT notifications and ELT(DT) alerts, and to execute procedures accordingly.

Reference Material

Eighth Meeting of the Asia/Pacific Search and Rescue Working Group

ICAO Annex 6 *Operation of Aircraft* Part I

ICAO Annex 11 *Air Traffic Services*

ICAO Annex 12 *Search and Rescue*

ICAO Annex 13 *Accident and Incident Investigation*

ICAO Doc 4444 *Procedures for Air Navigation Services – Air Traffic Management* (PANS-ATM)

ICAO Doc 100542 *Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery*

International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual Volumes I and II

ICAO Asia/Pacific Regional SAR Plan Version 4.0

ICAO Web Resources:

Global Tracking Initiatives

<https://www.icao.int/safety/OPS/OPS-Section/Pages/Global-tracking.aspx>

Update on GADSS-Related Global Aircraft Tracking Initiatives

<https://www.icao.int/safety/globaltracking/Pages/GADSS-Update.aspx>

ICAO Skytalk: GADSS Implementation Support Tools

<https://www.youtube.com/watch?v=ZbD3IIdkzBk>

ICAO OPS Control Directory

<https://www4.icao.int/opsctrl/>

Cospas-Sarsat Documentation:

C/S A.001 (data distribution procedures for ELT(DT)s)

C/S A.002 (structure and samples of ELT(DT) distress alert messages sent to SPOCs)

C/S T.001 and C/S T.018 (respectively, FGB and SGB (ELT(DT) specifications)

C/S G.007 (RCC handbook)

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Comments					
SURVEY OF STATE IMPLEMENTATION FOR AUTONOMOUS DISTRESS TRACKING (ADT)		Macao, China	New Zealand	Thailand	United States
STATE					
1	Registered a State Focal Point in the ICAO OPS CTRL Directory (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/)	Note 1: the ANSP and SAR contact details in OPS CTRL is not applicable to Macao China.	In progress		In progress. Please refer to the comment provided in 2., below.
2	Taken action to ensure and facilitate the registration of all relevant State organization (i.e. air navigation service provider (ANSP), search and rescue (SAR) service provider and aircraft operators in the OPS CTRL Directory.				In progress. The U.S. Government, including ANSP and SAR, continues to discuss and coordinate plans for participation in the Location of an Aircraft in Distress Repository (LADR). With respect to operators, the United States has notified ICAO of differences to the distress tracking standards in Annex 6, Part I, 6.18. Consistent with those differences, the United States does not require U.S. operators to maintain contact details in the ICAO OPS CTRL/LADR.
3	Taken action to ensure the required operational contact details are recorded in the OPS CTRL Directory for ANSP, SAR service provider and aircraft operators.			(For ANS concerned - only ANSP and SARSP registered)	Please refer to the comment provided in 2., above.
4	Implemented regulations, for aircraft operators, on compliance to Annex 6 Section 6.18.		New Zealand has filed a difference with ICAO relating to GADSS. Our promulgation of these requirements is slightly complicated as we also have a new Civil Aviation Act (our primary legislation that Civil Aviation Rules operate under) coming into force in April 2025, so we are unable to make any amendments to any regulations until this is in place. We have a programme of work underway assessing the promulgation of GADSS requirements into New Zealand Civil Aviation Rules. This piece of work is currently making recommendations to the Minister of Transport around what we should do with GADSS requirements. On the other hand, operationally we are ready to receive GADSS equipped aircraft into the Auckland Oceanic FIR, and both Airways NZ and the Rescue Coordination Centre NZ are working together to ensure all the correct procedures are in place.	(For ANS concerned - shown unauthorised access in LADR website when log in)	The United States has notified ICAO of differences to the provisions in Annex 6, Part I, Section 6.18. Existing regulations and surveillance capabilities deployed in the U.S. National Airspace System, including requirements for ADS-B Out equipment and use, provide precise, real-time position information to pilots and air traffic controllers. Additionally, FAA regulations require U.S. operators conducting international operations to comply with the rules in force in the countries in which they operate.
5	If applicable, implemented processes for applications of special exemptions for aircraft operators, on compliance to Annex 6 Section 6.18.		As per 4.		
6	Ensured relevant stakeholders are subscribed to Location of an Aircraft in Distress Repository (LADR) notifications.			(ANS/SR, ANSP and RCC can't subscribe according to unauthorised access in LADR website when log in)	Please refer to the comment provided in 2., above. Additionally, the United States notes that the information currently available to States regarding the LADR registration process and availability of notifications (dependent on legal instruments in place with the Cospas-Sarsat network) remains limited. The ICAO North Atlantic (NAT) Region Autonomous Distress Tracking Exercise with Location of an Aircraft in Distress Repository Project Team (NAT DISTREX PT) continues to conduct exercises to test the operation of the LADR and the coordination between ANSPs, SAR/RCCs, and air operators upon receipt of a notification. The United States expects to review outcomes from the NAT DISTREX PT and its exercises to inform continued planning for the LADR notification service.
7	Ensured relevant stakeholders implemented the capability to receive LADR notifications and access the LADR, to obtain further Autonomous Distress Tracking (ADT) notification information and data.				Please refer to the comments provided in 2. and 6., above.
8	Incorporated procedures for response to ADT notifications for ANSP, SAR service provider and aircraft operators.		As per 4.		Please refer to the comments provided in 2. and 6., above.
9	Incorporated ADT considerations in procedures and manuals for safety oversight of ANSPs and SAR service providers and aircraft operators.		As per 4.		The responsible safety oversight organizations within the U.S. Federal Aviation Administration (FAA) do not anticipate revising existing procedures and manuals at this time
10	Published and promulgated educational material on ADT for aircraft operators, air traffic service (ATS) unit, Rescue Coordination Centre (RCC) personnel and other necessary stakeholders.		As per 4.	(Sharing material on ADT to ANSP and RCC)	The U.S. FAA published Information for Operators (Info) 24016 in December 2024 to provide information on ADT to commercial operators conducting international operations. Info 24016 is available on the FAA's website: https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info/all_infos/Info24016.pdf

AIRCRAFT OPERATOR					
Check the box if the Aircraft Operator has:					
1	Registered in the ICAO OPS CTRL Directory (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/)				
2	Subscribed to LADR notifications.				
3	Implemented the capability to receive LADR notifications and access the LADR, to obtain further ADT notification information and data on their aircraft.				
4	Developed procedures for the initial aircraft operator response to ADT notifications and for informing appropriate ATS Units of the outcome of ADT validation checks.				
5	Trained flight despatch and other relevant personnel to understand ADT notifications and to execute ADT procedures accordingly.		Our main international air operator has started work to implement the other four elements.		While aircraft must be appropriately equipped to operate in non-U.S. airspace consistent with the applicable requirements, there is no additional U.S. requirement in place for U.S. operators, specific to Annex 6, Part I, Sections 6.18.1-3, in addition to existing surveillance capabilities. These questions are therefore Not Applicable to U.S. operators.
SAR SERVICE PROVIDER (RCC/RSC)					
Check the box if all relevant Air Traffic Service (ATS) Units have:					
1	Registered in the ICAO OPS CTRL Directory for RCC (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/).	Note 2: RCC is not established as Macao has ATZ only.			
2	Subscribed to LADR notifications.				
3	Ensured State RCCs implemented the capability to receive LADR notifications and access the LADR, to obtain further ADT notification information and data.				
4	Implemented procedures for the response to ADT notifications and coordination with ATS units.				
5	Trained SAR personnel to understand ADT notifications and ELT(DT) alerts, and to execute ADT procedures accordingly.				
AIR NAVIGATION SERVICE PROVIDER					
Check the box if all relevant Air Traffic Service (ATS) Units have:					
1	Registered in the ICAO OPS CTRL Directory (email: aircrafttracking@icao.int website: https://www4.icao.int/opsctrl/).	Note 3: According to the OPS Control Directory, the information is for the Area Control Centre of ANSP. Macao China has only Aerodrome Control Unit to provide ATS within Macao ATZ. However, the Macao Aerodrome Control Unit has implemented the procedures for point 5 & 6 in this section	Currently registered under Mark Blanchard		Items 1.-5. are in progress. Please refer to comments provided in STATE questions 1. through 10., above.
2	Subscribed to LADR notifications.		No, Airways will subscribe once it is approved internally, which contact will be used to receive notifications		
3	Ensured ATS units implemented the capability to receive LADR notifications and access the LADR, to obtain further ADT notification information and data.				
4	Implemented procedures for the response to ADT notifications and coordination with aircraft operators and RCCs.		No, but currently underway		
5	Trained relevant ATS personnel to understand ADT notifications and ELT(DT) alerts, and to execute procedures accordingly.		No, but currently underway		