



ICAO

International Civil Aviation Organization  
**Ninth Meeting of the ICAO Asia/Pacific Search and  
Rescue Working Group (APSAR/WG/9)**

Bangkok, Thailand 7 – 10 May 2024

## **Agenda Item 4: Asia/Pacific and inter-regional SAR planning, coordination and cooperation**

### **COOPERATION BETWEEN THE SAR SERVICE AND ACCIDENT INVESTIGATION AUTHORITY**

(Presented by Singapore)

#### **SUMMARY**

This paper discusses the pending implementation of a revised SAR implementation reporting form which includes a new element indicating cooperation between SAR services and accident investigation agencies, as stated in the updated version of the Asia Pacific SAR Plan. Recent aviation accidents had highlighted issues and challenges for an effective cooperation between SAR services and accident investigation authorities when SAR operations are conducted concurrently, and when the operation transits from SAR services to accident investigation.

## **1. INTRODUCTION**

1.1 Several incidents and accidents in the recent years have shown that division of responsibilities between SAR functions in ICAO Annex 12 and accident investigation ‘search and recovery’ function in ICAO Annex 13 is a common challenge faced by States when undertaking SAR services.

1.2 In 2021, the ICAO APSARWG developed a template for States to establish a formal arrangement between their agencies that provides SAR services and the accident investigation authority. The template was adapted from United States’ Memorandum of Understanding (MOU) between the relevant organizations, for inclusion into the Asia Pacific SAR Plan to assist States to have formal arrangement specifying the coordination between the organization that provides SAR service and the accident investigation authority of the State for concurrent operations. This template was also presented to the ICAO/IMO Joint Working Group (JWG) on SAR for consideration as a sample MOU to be included in the 2025 edition of the International Aeronautical and Maritime SAR (IAMSAR) Manual.

## **2. DISCUSSION**

2.1 Last year, the Secretariat presented a revised SAR implementation reporting form to the APSARWG. The revised reporting form drew the attention of the meeting to element 7.2 (i) of the Regional SAR Plan, which had been included in its latest update to version 4.0 in 2022:

*7.2 All States should:*

- i) establish arrangements for situations where RCCs need to conduct SAR operations (in accordance with Annex 12) at the same time as the accident investigation authority needs to conduct search and recovery operations (in accordance with Annex 13).*

2.2 An associated reporting item (new item number 16) was included in the revised SAR implementation reporting form. The new form will have the overall implementation status of 42 elements instead of 41. While the implementation of this new element would be tracked in reports submitted to ICAO, it would not be included in the implementation status scores until 2025, in order to mitigate against the potential reduction of scores in the nearer term. The new 42 elements performance indicators are included in Attachment 1 to this paper for reference.

2.3 The generic MOU template that was developed by the ICAO APSARWG was accepted as a guidance material by the ICAO/IMO JWG during the 29<sup>th</sup> ICAO/IMO JWG on SAR Meeting in 2022. This MOU template will be included in Volume 1 of the 2025 edition of the IAMSAR Manual. The MOU template is shown in Attachment 2 to this paper.

2.4 During the 29<sup>th</sup> ICAO/IMO JWG on SAR Meeting in 2022, ICAO indicated support for the guidance material to be included in the IAMSAR Manual. ICAO had also tasked the JWG to make proposal for amendment to ICAO Annex 12 to include the cooperation between these two services as a standard, at an appropriate time when States are able to implement the agreements or arrangements. The JWG was also of the view that this guidance material could be applied to the maritime domain as the maritime SAR convention does not have such provisions and the maritime community will likely benefit from such similar guidance for cooperation.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) discuss the information provided by this paper;
- b) put in place formal arrangements specifying the coordination between the organization that provide SAR service and the accident investigation authority of the State for concurrent operations; and
- c) note that this new element in the new SAR Implementation Reporting Form would be included in the overall implementation status scores in 2025.

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**REGIONAL SAR PLAN MONITORING AND REPORTING FORM**

1. Enacted legislation that incorporates or is aligned to applicable international Conventions
2. Unless delegated, established an entity that provides H24, SAR services within its area of responsibility/SRR
3. Established a national SAR committee
4. Empowered SAR Mission Coordinators with the authority to adequately carry out their responsibilities
5. Established an Administrative Single Point of Contact for SAR (ASPOCS) for non-urgent, administrative matters
6. Conducted studies to integrate aviation and maritime SAR, and as far as practicable, civil and military activities
7. Conducted studies to align, as far as practicable, aeronautical and maritime SRRs, and SRRs and FIRs
8. Established a single State SAR Plan
9. Established aerodrome emergency plans that provide for co-operation and co-ordination with RCCs
10. Established SAR agreements with States having adjoining SRRs or FIRs
11. Provided up to date cross-border information on SAR capability to adjoining States
12. Pre-arranged procedures for cross-border SAR responses
13. Established RCC plans for response to Mass Rescue Operations (MROs) integrated with national disaster plans
14. Established operational plans and procedures for SRUs, provision of support, communication and reporting
15. Established SAR Alerting procedures which are tested, integrated and include civil/military protocols
- new) 16. Establishment of arrangements to conduct SAR operations at the same time as the accident investigation authority needs to conduct search & recovery operations (in accordance to Annex 13)**
- ~~16~~ 17. Provided a fully equipped RCC of sufficient size with adequate provision for operational positions and human factors
- ~~17~~ 18. Provided adequate supervisory ATC resources to allow timely SAR alerts and information to RCCs 0%
- ~~18~~ 19. Provided sufficient RCC staffing
- ~~19~~ 20. Provided a sufficient number of trained specialist RCC officers including SMCs and A/SMCs
- ~~20~~ 21. Availability of a pool of RCC support staff who are familiar with RCC operations, but not trained as coordinators
- ~~21~~ 22. Developed SAR personnel position descriptions detailing responsibilities and eligibility criteria
- ~~22~~ 23. Developed a comprehensive training programme that includes SAR training for SAR Coordinators and SRU staff
- ~~23~~ 24. Facilitated RCC staff to be proficient in the English language
- ~~24~~ 25. Facilitated a programme of regular liaison visits between relevant RCCs, ATC units and airline operating centres
- ~~25~~ 26. Established additional oceanic SAR capability as far as practicable to ensure a timely and adequate SAR response
- ~~26~~ 27. Established sufficient SRU capabilities (crews, availability, military assets, communications, authority, etc.)
- ~~27~~ 28. Established procedures and necessary infrastructure to coordinate distress beacon alert responses
- ~~28~~ 29. Established a reliable distress beacon registration system
- ~~29~~ 30. Planned and prepared for the implementation of next generation beacons
- ~~30~~ 31. Established an appropriate nationwide means of disposal for old distress beacons
- ~~31~~ 32. Established contingency facilities, or procedures for the temporary delegation of SAR to another body or State
- ~~32~~ 33. Established a centralised information source publishing all AIP information required on SAR
- ~~33~~ 34. Established an Internet-based SAR information sharing system
- ~~34~~ 35. Established systems for the maximum practicable cooperation between State entities for information when required
- ~~35~~ 36. Developed and maintained a current, comprehensive electronic list of State SAR Facilities, SAR Equipment, and SRUs
- ~~36~~ 37. Established an Internet-based SAR Library, or cooperate by contributing to an Internet-based Asia/Pacific resource
- ~~37~~ 38. Provided each RCC and SAR Authority with ready access to a current copy of SAR reference documents
- ~~38~~ 39. Conducted regular SAREX to test and evaluate coordination procedures, data and information sharing and SAR responses
- ~~39~~ 40. Implemented SAR System Improvement and Assessment measures, including Safety Management and QA systems
- ~~40~~ 41. Conducted an annual or more frequent analysis of their current State SAR system to identify specific gaps in capability
- ~~41~~ 42. Conducted SAR promotional programs



SAMPLE MEMORANDUM OF UNDERSTANDING BETWEEN  
[THE SEARCH AND RESCUE SERVICE] AND THE [ACCIDENT INVESTIGATION  
AUTHORITY] REGARDING AIRCRAFT ACCIDENT INVESTIGATIONS DURING SEARCH  
AND RESCUE OPERATIONS

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**Notification and Cooperation during concurrent [Search and rescue service] Search and Rescue (SAR) and [Accident investigation authority] Accident Investigation Operations**

1. **Purpose.** This MOU between the [Search and rescue service] and the [Accident investigation authority] is to address the [Search and rescue service's] obligations under the Convention on International Civil Aviation (ICAO), Annex 12 Search and Rescue; and the [Accident investigation authority's] obligations under ICAO Annex 13 Aircraft Accident and Incident Investigation during concurrent responses to an aircraft accident.

2. **General.** The [Search and rescue service] is the [State name] lead agency with regard to its obligations in support of Annex 12. It establishes and provides SAR services in accordance with the Annex. The [Search and rescue service] is the national SAR Coordinator for aircraft in distress in the [maritime and/or aeronautical] search and rescue region(s). The [Accident investigation authority] leads the investigation of all civil aircraft accidents or incidents.

3. **SAR and Accident Investigation Protocols.** The [Search and rescue service] and [Accident investigation authority] agree that mutual coordination and cooperation between the two agencies promotes efficient and effective SAR and accident investigation operations. The [Accident investigation authority] does not participate in the search and rescue of persons that are involved in an aircraft accident but may assist [SAR authority] with information and expertise that assists the SAR operation. The [SAR authority] may assist the [Accident investigation authority] with information resulting from the SAR operation that assists with accident investigation and may also provide assistance with search and recovery operations.

a. When a SAR operation involving an aircraft accident occurs in a SAR region in which the [Search and rescue service] is responsible, the [Search and rescue service] will notify the [Accident investigation authority] at the earliest opportunity. The point of contact for the [Accident investigation authority] is: [contact details such as telephone number and email address].

1) If an [Accident investigation authority] investigator-in-charge has been named, the [Accident investigation authority] point of contact will inform the Search and rescue service] point of contact.

2) The [Accident investigation authority] point of contact may share the investigator-in-charge's contact information with the [Search and rescue service] point of contact.

3) The [Search and rescue service] SAR point of contact is the rescue coordination centre (RCC) or rescue sub-centre (RSC) responsible for the coordination of the SAR operation.

b. The State of occurrence, i.e. the State in the territory (and territorial sea) of which an accident or incident occurs, is responsible for the conduct of the investigation in accordance with ICAO Annex 13. For accidents and incidents outside the territory and

territorial sea of any State, the State of Registry of the aircraft is responsible for the conduct of the investigation.

- c. States nearest the scene of an accident in international waters, particularly the State with the search and rescue region responsibility, are to provide assistance as they are able and respond to requests by the State of Registry. If the State of Registry takes control of the investigation, then the [Accident investigation authority] will coordinate with the State of Registry investigator-in-charge to meet the intent of this MOU.
- d. Typically, the [Accident investigation authority's] on-scene investigative work begins after the SAR operation concludes and the recovery phase begins, but it may begin during the SAR operation on the understanding that the SAR operation takes priority whilst there is opportunity to rescue survivors.
  - 1) The [Accident investigation authority] may conduct its investigation of wreckage recovered during a SAR operation. The [Accident investigation authority] investigator-in-charge will coordinate with the RCC or RSC responsible for coordinating the SAR operation to ensure neither agency's work hinders that of the other.
- e. The [Search and rescue service] will provide data and information related to the SAR operation requested by the [Accident investigation authority] for its accident investigation. Where appropriate, arrangements should also be mutually agreed for the securing of any debris or wreckage retrieved during the SAR operation as practicable without diverting effort from the SAR operation.
- f. The [Search and rescue service] and the [Accident investigation authority] will abide by the terms of this MOU.

**Note:** *This template serves as guidance for States to draft an agreement (which may take the form of an MOU or Arrangement or other instrument title) and the text to be included in this document is for the Parties involved to decide.*

*Depending on national rules and procedures, this sample MOU may need to be modified for arrangements between one national search and rescue service and one national accident investigation authority.*

*This template may also assist with the development of separate arrangements for investigation of maritime craft.*

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