

**NAM/CAR/SAM Workshop on SAR
and Civil/Military Coordination
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**Flexible use of airspace
for Search and Rescue**

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ICAO

UNITING AVIATION

Lessons learned from recent events in Aviation

*SAR-GMDSS REGIONAL CONFERENCE
Manama, Bahrain, 21 and 22 October 2014*





3 events

Air France AF 447 June 2009

Malaysian Airlines MH 370 March 2014

Malaysian Airlines MH 17 July 2014

[AirAsia 8501 December 2014]





	START OF SEARCH	LOCATION OF WRECKAGE
AF447	8H50 AFTER EVENT	6,5 NM FROM LAST KNOWN POSITION
MH370	SHORTLY AFTER EVENT	UNKNOWN
MH17	4H00 AFTER EVENT	DONETSK





	SAR ISSUES	RECOMMENDATIONS
AF447	NO SAR COORD PLAN BETWEEN BRAZIL AND SENEGAL	90 DAY ULB BATTERIES AIRBORNE ACTTIVATION OF ELT MANDATORY USE CPDLC/ADS-C TRIGGERED TRANS OF DATA DRIFT BUOYS ON ALL SAR A/C
MH370	COORDINATION DEALING WITH MEDIA LONG-TERM SEARCH RESCUE OR RECOVERY	FLIGHT TRACKING CIVIL/MIL COOPERATION PLAN FIR/SRR BOUNDARIES
MH17	CRASH IN CONFLICT AREA	PROCEDURES/RULES FOR FLIGHTS OVER CONFLIT AREA

Lessons learned:

- Media relations
- SAR exercise involving all stakeholders
- Civil/Military coordination



Special ICAO Meetings in 2014 and 2015

- Briefing to ICAO Council May 2014
‘Progress Since 2009 and the Work Ahead’
 - ICAO HQ ongoing effort to improve “Provision of timely and adequate SAR services”
- ICAO HQ Special Meeting on Global Flight Tracking
 - ICAO should increase its resources allocated to Search and Rescue in order to improve the effectiveness across national and regional boundaries.
- ICAO HQ High Level Safety Conference
 - Global flight tracking and Global Aeronautical Distress and Safety System

Search and Rescue Region (SRR)

- The military often provides SAR response for a State and the military often strongly influences the use of airspace, including over SAR regions.
- SRR defined by IMO and ICAO conventions.
- National airspace (over territorial land and territorial sea) is a national SRR.
- Flight information region (basis for aeronautical SRR) and maritime SRRs beyond the territorial sea.

ICAO/IMO Joint Working Group on SAR

- September 2014, the ICAO/IMO JWG on SAR recommended that IMO and ICAO adopt a new term regarding airspace:

“Area of SAR action: An area of defined dimensions that is established, notified or agreed for the purposes of protecting aircraft during SAR operations and within which SAR operations take place.”

- IMO and ICAO approved this in March 2015; and, new guidance will be published.

Flexible Use of Airspace for SAR

- Many States already use the concept of “Area of SAR action” for safety of flight in search areas.
- Need close collaboration with national Civil Aviation Authority in advance of SAR operations.
- SAR Mission Coordinator (or other SAR operations point of contact) would request local air traffic service to declare a temporary area for special consideration of safety of flight operations (Notice to Airmen NOTAM)).

Flexible Use of Airspace for SAR

- The area is typically defined by:
 1. Position (or a set of four coordinates to form a box)
 2. Radius in nautical miles from the position
 3. Up to an altitude of “xxxx” feet
- The organization requesting the special area would be responsible to manage the entry and exit of aircraft.
- For international and oceanic airspace, entry cannot be denied so the goal is to manage it.
- Search operations can be conducted safely and aircraft not involved in SAR operations are informed that a temporary event is in progress.



- Incidents such as AF 447 and MH 370 can and will happen to any State.
- The incident shown here needed fast reaction by air traffic services and the aircraft could not follow its planned route.
- Efficient Civil/Military cooperation and coordination is vital for rapid reaction to in-flight emergencies and also searches.
- Working together for flexible use of airspace fixes many of the concerns in advance of an actual incident.