



# Why the need for SAR Cooperation

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# Outline

- SAR - background
- SAR cooperation - Annex 12
- Regulatory deficiencies
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- Review MH370 accident
- Review Egypt Air 804 accident
- Benefits of SAR cooperation
- Challenges



## SAR - Background

- In December 1946 at its 2nd Session, the Search and Rescue Division made recommendations for Standards and Recommended Practices (SARPs) for Search and Rescue.
- The SARPs had been developed by the Secretariat and the existent Air Navigation Committee.
- Annex 12 became effective on 1 December 1950 and came into force on 1 March 1951.



## SAR Cooperation – Annex 12 Chapter 3

- *Contracting States shall coordinate their search and rescue organizations with those of neighbouring States (STD 3.1.1).*
- *Contracting States should, whenever necessary, coordinate their search and rescue operations with those of neighbouring States especially when these operations are proximate to adjacent search and rescue regions (REC 3.1.2) .*



## SAR Cooperation – Annex 12 Chapter 3

- *Contracting States should, in so far as practicable, develop common search and rescue plans and procedures to facilitate coordination of search and rescue operations with those of neighbouring States (REC 3.1.2.1).*
- *Subject to such conditions as may be prescribed by its own authorities, a Contracting State shall permit immediate entry into its territory of search and rescue units of other States for the purpose of searching for the site of aircraft accidents and rescuing survivors of such accidents (STD 3.1.3).*



## SAR Cooperation – Annex 12 Chapter 3

- *The authorities of a Contracting State who wish their search and rescue units to enter the territory of another Contracting State for search and rescue purposes shall transmit a request, giving full details of the projected mission and the need for it, to the rescue coordination centre of the State concerned or to such other authority as has been designated by that State (STD 3.1.4).*



## SAR Cooperation – Annex 12 Chapter 3

- *The authorities of Contracting States shall:*
  - *immediately acknowledge the receipt of such a request, and*
  - *as soon as possible, indicate the conditions, if any, under which the projected mission may be undertaken.*
- *Contracting States should enter into agreements with neighbouring States to strengthen search and rescue cooperation and coordination, setting forth the conditions for entry of each other's SAR units into their respective territories. These agreements should also provide for expediting entry of such units with the least possible formalities (REC 3.1.5).*



## SAR Cooperation – Annex 12 Chapter 3

- *Each Contracting State should authorize its rescue coordination centres to provide, when requested, assistance to other rescue coordination centres, including assistance in the form of aircraft, vessels, persons or equipment (REC 3.1.7).*
- *Contracting States should make arrangements for joint training exercises involving their search and rescue units, those of other States and operators, in order to promote search and rescue efficiency (REC 3.1.8).*





## SAR Cooperation – Annex 12 Chapter 3

- *Contracting States should make arrangements for periodic liaison visits by personnel of their rescue coordination centres and subcentres to the centres of neighbouring States (REC 3.1.9).*
- *Contracting States shall arrange for all aircraft, vessels and local services and facilities which do not form part of the search and rescue organization to cooperate fully with the latter in search and rescue and to extend any possible assistance to the survivors of aircraft accidents (STD 3.2.1)*



## SAR Cooperation – Annex 12 Chapter 3

- *Contracting States should ensure the closest practicable coordination between the relevant aeronautical and maritime authorities to provide for the most effective and efficient search and rescue services (REC 3.2.2).*
- *States shall designate a search and rescue point of contact for the receipt of Cospas-Sarsat distress data (STD 3.2.5).*



## SAR Cooperation – Annex 12 Chapter 3

- *Each Contracting State shall publish and disseminate all information necessary for the entry of search and rescue units of other States into its territory or, alternatively, include this information in search and rescue service arrangements (STD 3.3.1).*
- *When such information could benefit the provision of search and rescue services, Contracting States should make available, through the rescue coordination centres or other agencies, information regarding their search and rescue plans of operation (REC 3.3.2).*



## SAR Cooperation – Annex 12 Chapter 3

- *Contracting States should, to the extent desirable and practicable, disseminate information to the general public and emergency response authorities regarding actions to be taken when there is reason to believe that an aircraft's emergency situation may become cause for public concern or require a general emergency response (REC 3.3.3).*



## IAMSAR Manual – Chapter 1

- *Every State recognizes the great importance of saving lives and the need to be directly involved in rendering aeronautical and maritime search and rescue services to persons in distress.*
- *With a focus on the humanitarian nature of their work, member States of ICAO and IMO cooperate to develop and sponsor vital standards and recommendations, to provide other types of assistance to States to help prevent and cope with distress situations and to facilitate international co-operation and co-ordination on a daily basis.*



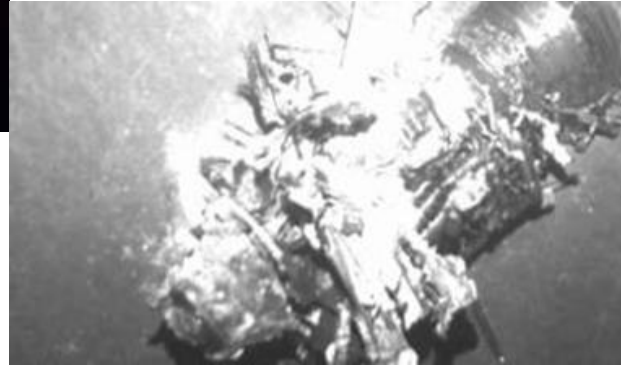
## Regulatory Deficiencies

SAR legal framework not fully established in many States



## Review – Air France 447 accident

- The Air France Flight 447 which crashed on 1st June 2009 was on a scheduled flight from Rio de Janeiro (Brazil) to Paris.
- All 228 people on board were killed when the Airbus A330 fell from the sky into the Atlantic Ocean off the coast of Brazil.
- Multi-national participation in the search.
- The wreckage was found two years later at the bottom of the Atlantic Ocean.
- Resources allocated (financial over US\$50m estimated)







## Review – Malaysian 370 accident

- On Saturday 8 March 2014, MH370 took off from Kuala Lumpur to Beijing, carrying 227 passengers and 12 crew onboard.
- The plane vanished after approximately one hour into flight.





## Review – Malaysian 370 accident

- Multi-national cooperation to locate the aircraft.
- Expanded search patterns.
- To date, main wreckage still not found.
- No survivors accounted for.
- Over US\$ 50 million spent just four weeks after the incident.
- Cost escalating further due to continued underwater search.
- Pieces of debris discovered in the western Indian Ocean ( Reunion, Mozambique).



## Review – Egypt Air 804 accident

- Egypt Air Flight 804 was a scheduled international passenger flight from Paris Charles de Gaulle Airport to Cairo which crashed into the Mediterranean Sea on 19 May 2016 at 02:33 Egypt Standard Time.
- There were 66 people on board: 56 passengers, 7 aircrew, and 3 security personnel.
- Debris from the aircraft were found in the Mediterranean Sea approximately 290 km north of Alexandria, Egypt.





## Benefits of SAR Cooperation

- Mutual benefit in having bi-lateral SAR agreements between States where resources can be shared to save lives.
- RCC/RSC is able to initiate contact for SAR assistance at an early stage, using contact details already available in the SAR LoA/MoU.
- The RCC/RSC will have details of SAR assets that can be made available immediately.



## Benefits of SAR Cooperation

- Without a formalized agreement, request for assistance from a neighbouring RCC/RSC may have to go through various channels (ministries, military organs) with considerable delays.
- Such delays can impact on early deployment of appropriate SAR units to the search area, increasing the chances of survivors succumbing to their injuries or to the harsh conditions of their immediate environment.





## Benefits of SAR Cooperation

- Builds confidence
- Provides assurance to the traveling public that States through their civil aviation authorities, military, maritime authorities and other local agencies can assure expeditious search and rescue operations.
- Prevents bad publicity

PUBLIC OPINION AND  
EXPECTATIONS





## Challenges

- In many States, the involvement of CAAs in day to day running/operation of RCC/RSC is limited and is mostly related to safety oversight functions.
- RCC/RSC operational responsibility normally falls under military authorities who are better equipped and trained to carry out SAR operations (they have SAR assets).
- Lack of MoUs detailing extent of cooperation between civil and military authorities for SAR at national level.



## Challenges

- No formal arrangements for CAA inspectors to access and conduct inspections of the RCCs/RSCs managed by military authorities, in order to improve service delivery and ensure regulatory requirements in place.
- Lack of adequately trained SAR inspectors to conduct safety inspections/audits of RCCs/RSCs
- Lack of political will to support cooperation requirements provided for under Annex 12 to the Chicago Convention.
- Lack of LoAs with neighbouring States in adjacent Search and Rescue Regions to assist/cooperate in SAR operations.



## Challenges

- Lack of funds or SAR budget at national level to support effective implementation of SARPs related to Annex 12, as identified by ICAO USOAP CMA:
  - *training for staff (regulator and service provider)*
  - *installation of relevant communication equipment to effectively coordinate SAR operations.*
  - *Lack of periodic communication exercises (tabletop) and physical SAREX involving key players at national level.*



**Do you have adequate resources and associated logistics in place should your RCC/JRCC/RSC be called upon to support a neighbour in the search for and rescue of survivors of an aeronautical or maritime accident?**



- What can be done in the short term to improve the SAR capability of your State that doesn't require substantial investment (low hanging fruits) ?







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THANK YOU