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الهيئة العامة للطيران المدني
UAE General Civil Aviation Authority

ICAO Global SAR Forum

SAR: Safety defence or broken fence?

Hosted by the UAE GCAA

Abu Dhabi, UAE, 21-22 June, 2010

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SAR Takes Many Forms





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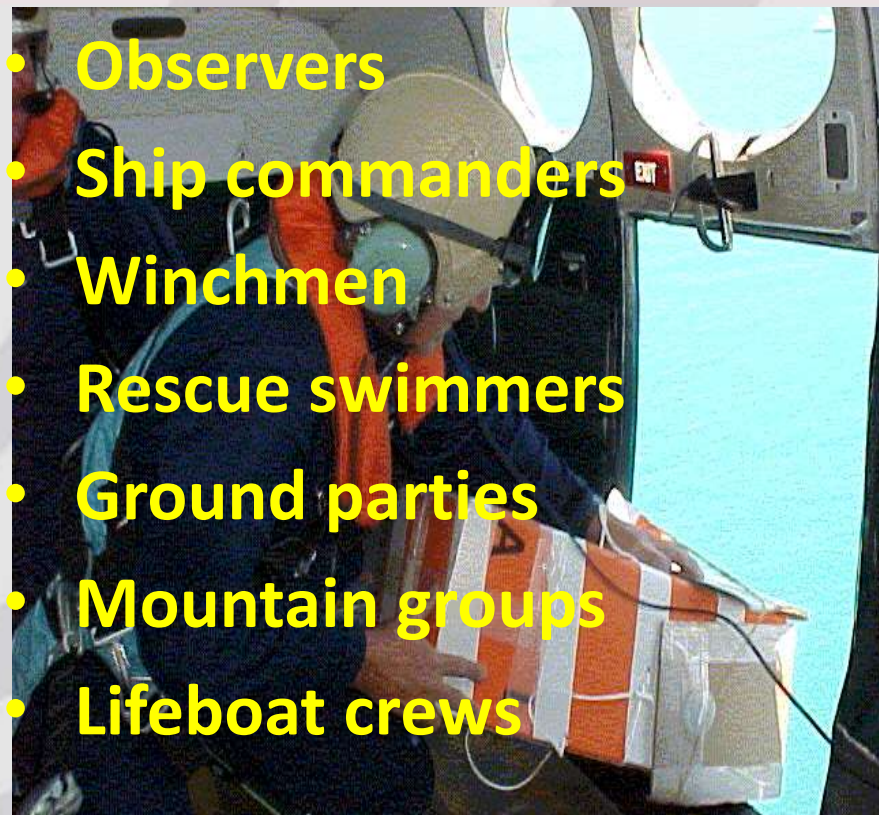
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Our Concern is Civil Aviation SAR



SAR has many functionalities



What is an aviation accident?

A **civil aviation accident** is

- an occurrence associated with the operation of a civil aircraft, that takes place
- between the time any person boards the aircraft intending to fly and the time the person disembarks,
- in which a person is fatally or seriously injured,
- the aircraft sustains damage or structural failure, and/or
- the aircraft is missing or is completely inaccessible.

What is “safety” in the context of SAR?

- Aviation “safety” refers to the efforts that are taken to ensure that aircraft, airports, airlines, air navigation systems and air navigation services, including SAR, are free from factors that may lead to deaths, injuries or loss.



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Convention on International Civil Aviation

- A legal agreement on principles and arrangements governing international civil aviation operations – signed by 190 Contracting States

Chicago Convention





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INTERNATIONAL CIVIL AVIATION ORGANIZATION

- Aviation executing agency of the United Nations
- Created at end of World War II as the administering organization of the Convention on International Civil Aviation (Chicago Convention) to ensure the safe and orderly growth of civil aviation “through uniformity of law” (Chicago Convention)
- Has 190 Member States

ICAO HEADQUARTERS, MONTREAL





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ARTICLE 25 - SAR

“Each Contracting State undertakes to provide such measures of assistance to aircraft in distress in its territory as it may find practicable...

Each Contracting state, when undertaking search for missing aircraft, **will collaborate in coordinated measures** which may be recommended from time to time pursuant to this Convention.”



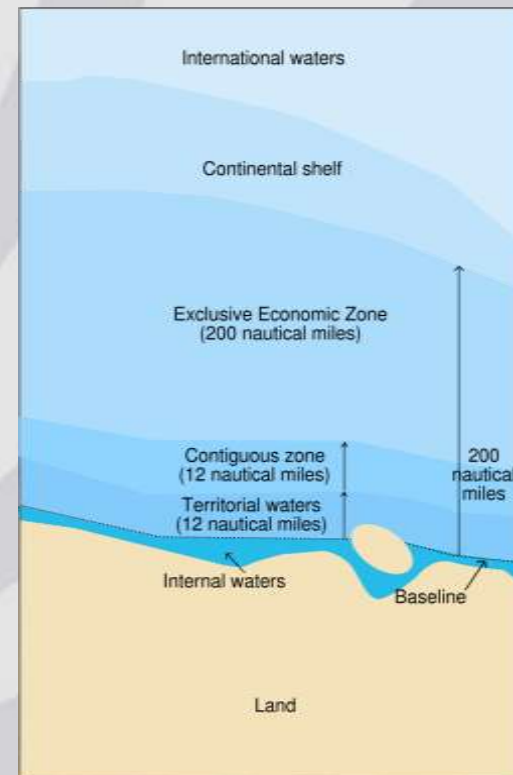
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Annex 12 : SAR

- Specifies:
- responsibilities,
- policies and
- procedures within:
- the territory of a state (deemed to be the land areas and adjacent territorial waters), and
- including areas of the high seas determined on basis of **regional** air navigation agreements.



Annex 12 : SAR

- **Services to be “provided on a 24-hour basis”;**
- **An RCC shall be established in each SRR;**
- **SAR organizations shall coordinate their activities with neighboring States,**
 - using common SAR plans, and
 - shared resources.

NTSB study

- “to dispel a public perception that most air carrier accidents are not survivable” and “to identify things that can be done to increase survivability in the accidents that do occur”.



SURVIVABILITY

- More than 9 out of ten people survive a airline accident.
- The NTSB study of 568 accidents over the 18 year period from 1983 – 2000 found that of the 51,207 total occupants, 2,280 died, giving a survival rate of 95%.





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SURVIVABILITY



For serious accidents, the survival rate is nowhere near 95%. However, of 2,739 occupants in these cases, 1,524 survived, for a rate of 55%. This includes non-survivable accidents.



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More uncomfortable truths

- At least 426 aircraft ditched worldwide between 1976 and 2003 including:

Casa 212, Cessna Citation,
Aero Com 690,
Embraer 110, Shorts 360.

- 57 water contact accidents involving turbo-jet aircraft_{SAR1}





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Relative Risk Factors

Civil aviation operations are low risk with high stakes.
SAR operations are medium risk with high stakes





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ICAO's OPERATIONAL SAFETY PROGRAM

- the transition of the audit program from the CSA towards the CMA

which leads to and requires:

- the implementation of State Safety Programs by regulators and Safety Management Systems by service providers.



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ICAO's OPERATIONAL SAFETY PROGRAM

- is not dependent on accidents occurring for acquisition of data (FDRs/CVRs), but
- requires extensive data from continuous monitoring of operations.
- results in early identification of hazards, appropriate determination of ALoS and relevant safety targets.

In summary

- SAR is relevant to contemporary civil aviation operations
 - legally mandated,
 - structured by close provisions,
 - essential component of aviation safety system,
- SAR itself requires integral safety defences of a high order
- SAR is essential and needs to be effective and safe!



Thank you!

21-22 June 2010
Abu Dhabi

Hosted By:



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