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# Aircraft Tracking GADSS Update

**FSMP**

**September 2016**

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**ICAO**



# Topics

- Where are we
- Where are we going
- How are we planning to get there

# Normal Aircraft Tracking SL AN 11/1.1.29-15/12

Aircraft  
Tracking  
Normal  
Operations

Aircraft  
Tracking  
Abnormal  
Operations

Autonomous  
Distress  
Tracking

Retrieval of  
CVR and  
FDR Data

# Normal Tracking SARPs



## Performance-based Standards and recommended practices for normal flight tracking

- No change to ATC procedures
- Not technology-specific
- Establish operator responsibility to track
- Recommendation to track where ATC gets position information at more than every 15 min
  - 27 000 Kg and more than 19 Seats
- Standard to track in oceanic areas where ATC gets position information at more than every 15 min
  - 45 500 Kg and more than 19 Seats
- Data retention for last aircraft location purposes

### Timelines





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# Graphical Representation

Requirement  
to track

**Recommendation**  
to track at 15  
minute intervals

**Requirement to**  
track at 15 minute  
intervals



# Distress Tracking SARPs



## Performance-based Standards and recommended practices for distress flight tracking

- Not technology-specific
- Location of an accident site within 6 NM
- Active
  - On flight behaviors that can lead to an accident
  - Manually from the air
- Power and position information autonomous from other a/c systems
- Applies to new aeroplanes from 2021
- Incentive for early adoption as an alternative to second ELT

### Timelines

- ✓ **January 2015**
  - Preliminary review by ICAO ANC
- ✓ **May 2015**
  - State Letter
- ✓ **October 2015**
  - Final review by ICAO ANC
- ✓ **March 2016**
  - Adopted
- ✓ **July 2016**
  - Effective
- **January 2021**
  - Applicable



## ***DISTRESS TRACKING***

- Automatic
- Manual

**AUTONOMOUS**

Aircraft behavior event  
that if left uncorrected,  
can result in an  
accident.

**Squawk at  
one minute intervals**

**6 NM**

**RESCUE COORDINATION CENTER**

**Adopted SARP**

## ***DISTRESS TRACKING***



→ Automatic  
→ Manual

**AUTONOMOUS**



**Local User  
Terminal**



**Mission  
Control  
Center**

Rescue  
Coordination  
Center  
4D/1 Position  
information  
Rescue  
Coordination  
Center

**Distress Tracking Concept  
GADSS CONCEPT**





Other  
Satellites



***DISTRESS TRACKING***



→ Automatic  
→ Manual

**AUTONOMOUS**

Rescue  
Coordination  
Center  
4D/1 Position  
information  
Rescue  
Coordination  
Center

Ground  
Station



Mission  
Control  
Center



ATC



Control  
Center

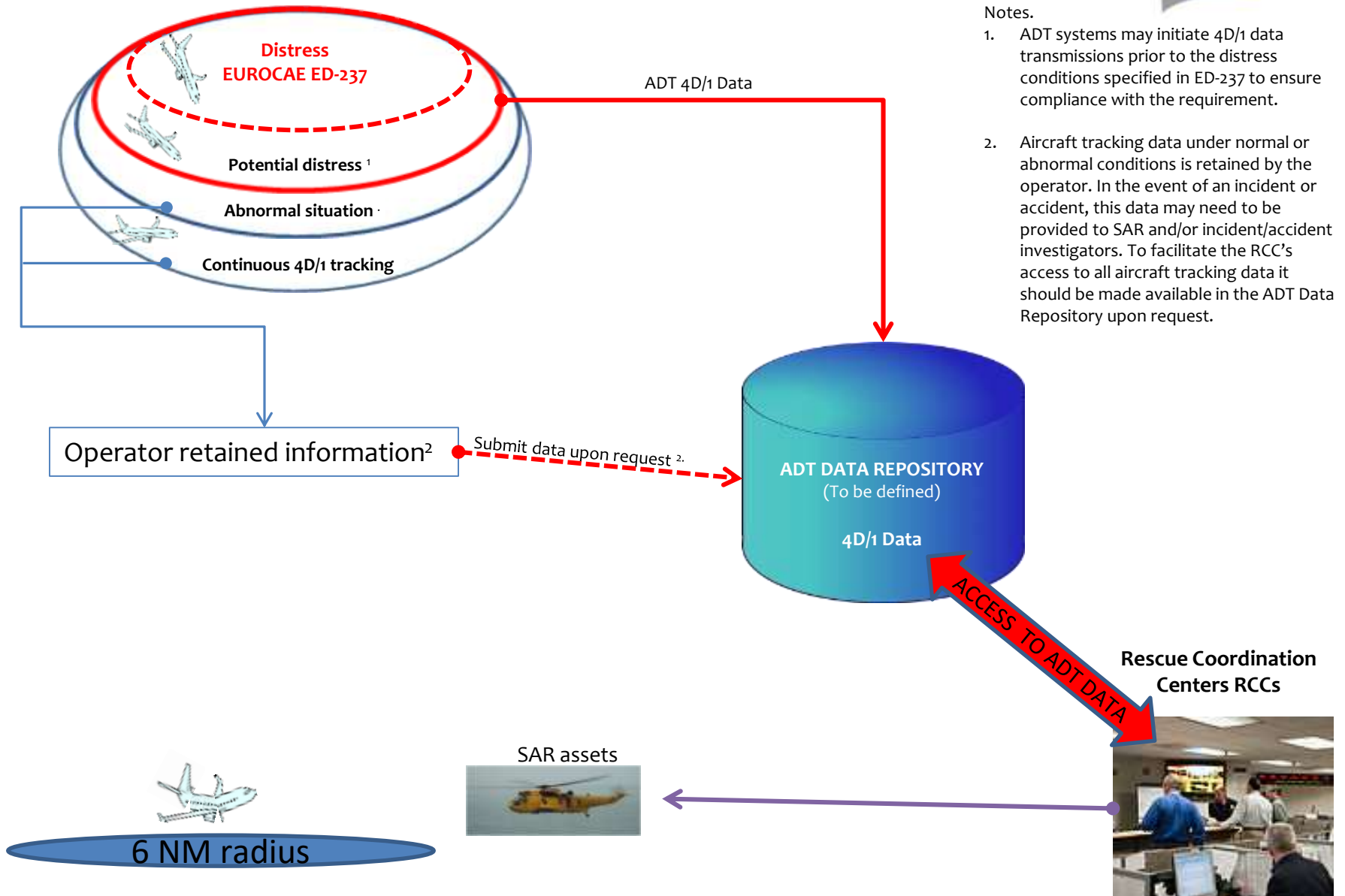


**Distress Tracking Concept  
GADSS CONCEPT**



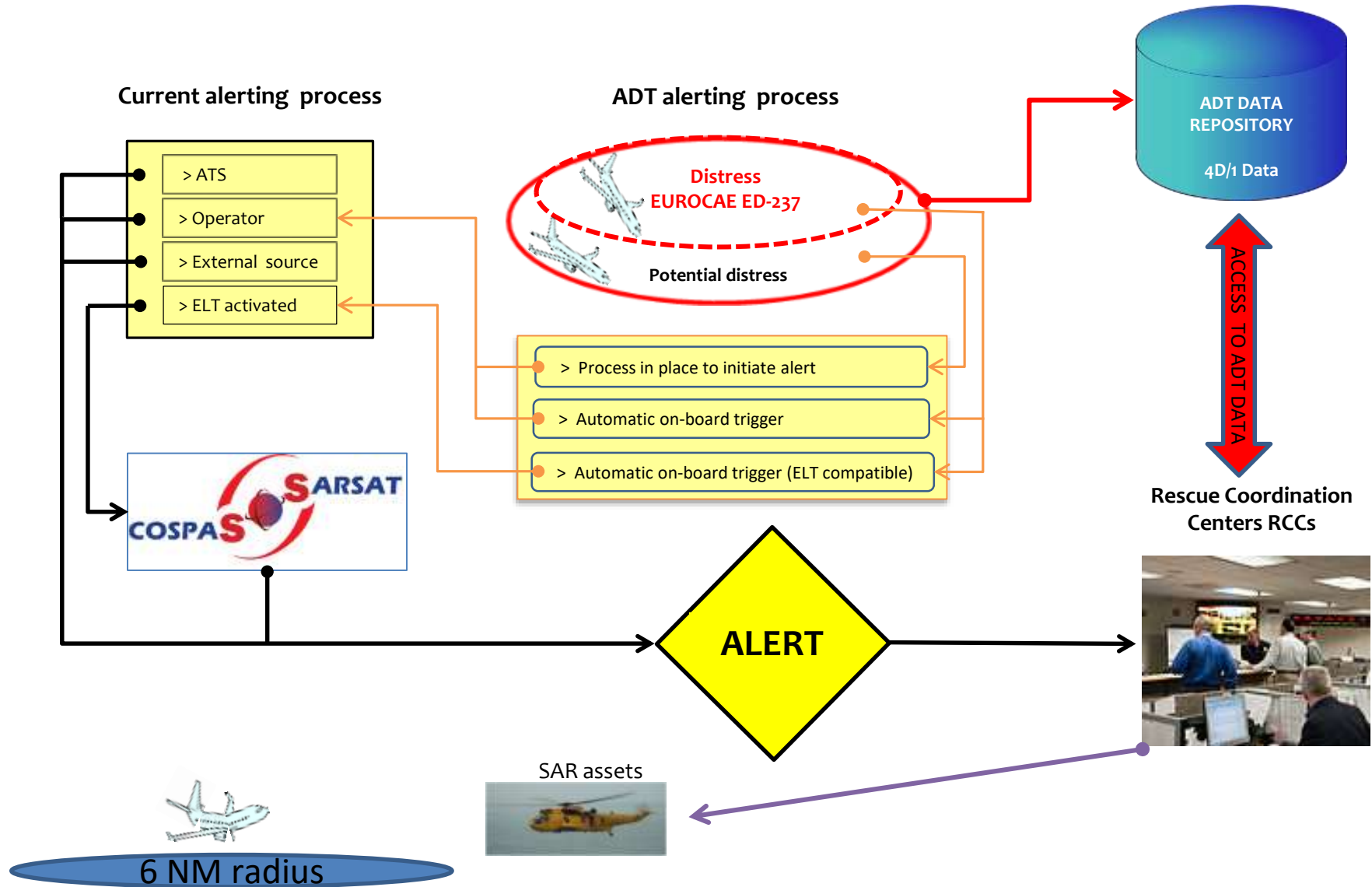
# ADT DATA RETENTION LOCATION AND ACCESS

Work in Progress



# ADT DISTRESS ALERTING

Work in Progress





# What to Expect

- GADSS Advisory Group
  - Updating the CONOPS
    - SL comments and suggestions
    - Latest developments in technology
  - Identification additional provisions
    - Other Annexes
    - PANS
  - Next version of GADSS (Ver 6.0)
    - Expected to be published end of 2016





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