



EASA
European Aviation Safety Agency

CAT SET-IMC Concept of operations

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04 July 2017

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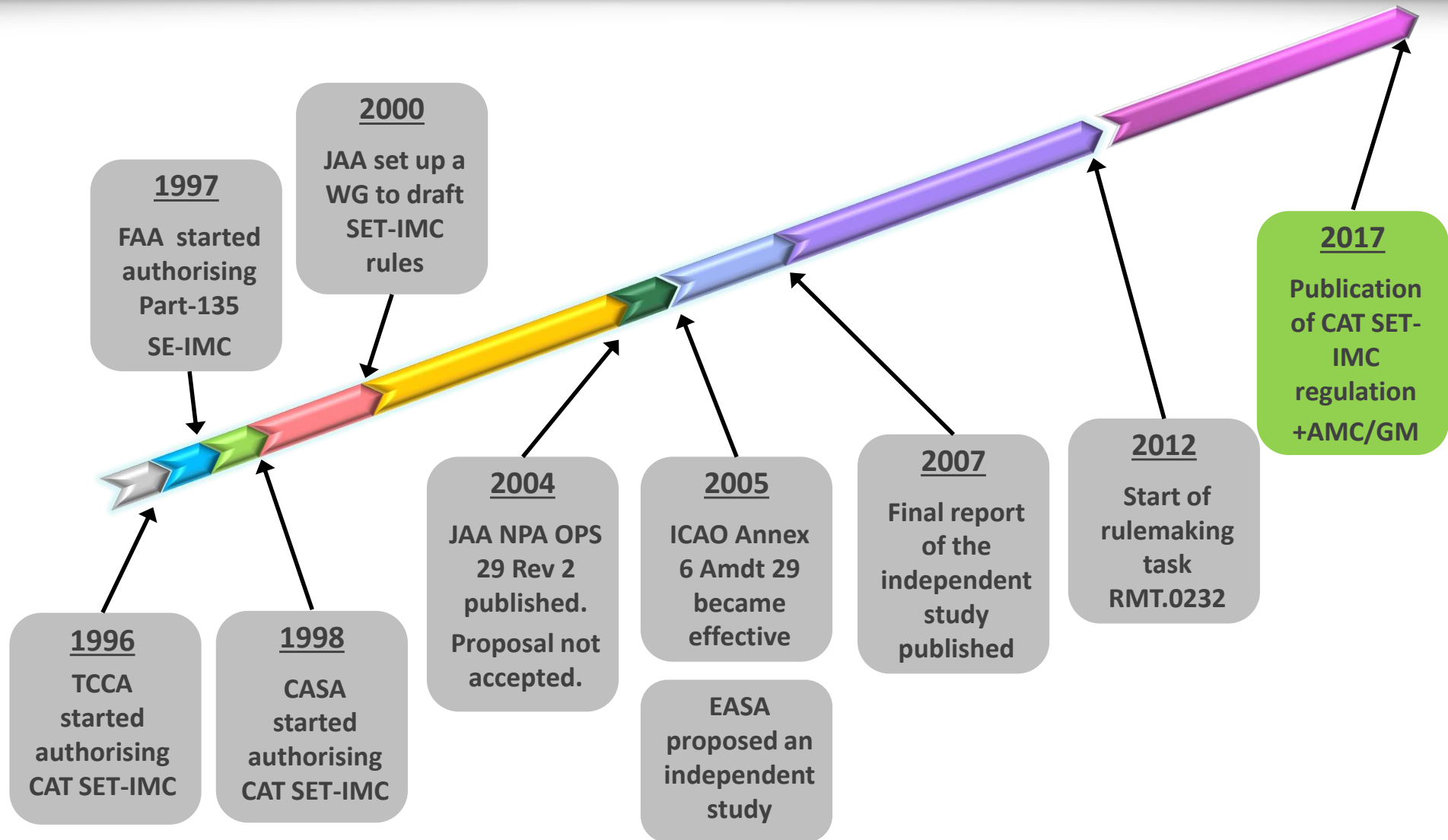


Outline

- History of CAT SET-IMC
- Concept of CAT SET-IMC operations
- Eligibility criteria
- Overview of the rules
 - Structure
 - Applicability

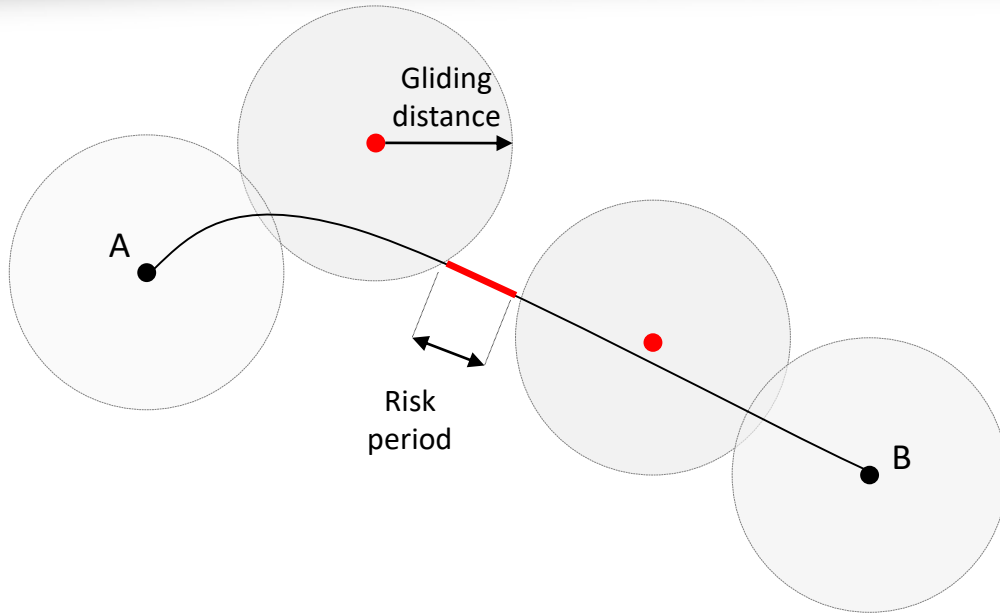


History of the task





Concept of operations



No requirement for the availability of landing sites along the route in ICAO Annex 6 Part I

- Identification of landing sites along the route (assessed by the operator)
- Landing sites pre-programmed in navigation system
- Crew trained to manage emergency landing
- **When no landing is site available**, possibility to make use of a risk period of a **15 mn (total)** per flight due to the high reliability of turbine engines
 - AMC 1 SPA.SET-IMC.105(d)(2) allows the extension beyond 15 mn of this risk period based on risk assessment established by the operator for the route concerned demonstrating that the target FAR is met.



Main differences with other regulatory provisions

FAA:

- No requirement for a landing site available along the route and no specific flight preparation requirement
- CAT in IFR with SE aeroplanes is open to all types of engines without reliability requirements

CASA:

- CASA publishes the list of eligible aeroplanes (based on a engine reliability criteria and equipment requirements)
- No risk period but landing sites within gliding distance + 15 mn flying time in cruise



ETOPS like principle



1st step: Eligibility of the aeroplane/engine

- Aeroplane/engine eligible (engine reliability)
- Aeroplane equipment



2nd step: Operator's approval

- Maintenance procedures (including engine trend monitoring programme and propulsion system reliability programme)
- FC composition/FC training programme
- Operating procedures (MEL, flight planning, FC procedures, monitoring/incident reporting)
- Risk assessment



Target FAR

- Global Target FAR: 4 /MFH
 - Equivalent to similar operations with twin engine aeroplanes
 - Based on an engine reliability rate of 10 /MFH
- Follow-up - Data to be consolidated:
 - Reports sent by operators to CAs
 - EASA welcomes input from CAs to get a more representative picture.



Regulatory material published

► Regulation (EU) No 2017/363 of 01/03/2017

- | | |
|------------|---|
| ► Part-ARO | New OPS SPECS template |
| ► Part-ORO | Single-pilot operations: provisions for SE aeroplanes |
| ► Part-CAT | Removal of previous CAT SET-IMC ban |
| ► Part-SPA | New Subpart L – SET-IMC |

► ED Decision 2017/004/R of 09/03/2017

- AMC/GM to Part-ARO
- AMC/GM to Part-ORO
- AMC/GM to Part-CAT
- AMC/GM to Part-SPA



Structure of the CAT SET-IMC requirements

Implementing rules

ARO: OPS SPECS template

ORO.FC: Single-pilot operations

CAT.OP.MPA:

- Link to SPA.SET-IMC (landing sites)
- Take-off alternate

CAT.POL.A:

Link to SPA.SET-IMC (landing sites)

SPA.SET-IMC:

- Approval criteria
- Equipment requirements

Acceptable means of compliance

ARO.OPS: CAT SET-IMC approval procedure

ORO.MLR: OM content

CAT.OP.MPA: Take-off minima

CAT.IDE.A: Aeroplanes without auto deployable oxygen systems

SPA.SET-IMC:

- | | | |
|--|--------------------------|-------------------|
| ◦ Annual report | ◦ Turbine reliability | ◦ Flight planning |
| ◦ Maintenance programme | ◦ Training programme | ◦ Landing site |
| ◦ Crew composition | ◦ Contingency procedures | |
| ◦ Route and instrument procedure selection | | ◦ Equipment |





SPA.SET-IMC: implementation

- CAT SET-IMC is a specific approval under Part-SPA:
 - The CAT SET-IMC approval is reported on the OPS SPECS
 - Relates to a specific engine/aeroplane combination

- Applicable 20 days after publication: **22 March 2017**

- For already approved operators under an exemption:
6 M transition period until **02 September 2017**.



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Thank you for your attention.

Questions?

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