



Network Manager
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Go-around Safety Forum

ATM Contribution to safe go-around

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Key points

The content of this briefing

- Review of ATM contribution to safe go-around
- Go-around initiation
- Go-around execution risk factors

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- **Review of ATM contribution to safe go-around**
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The Review

How ATM contributes to safe go-around?

- Part of Safety Improvement Sub-Group sharing
- 3 years of dedicated effort
- Safety Occurrences review
- Best Practices from ANSPs
- Case studies - processing radar data and analysis
- Go-around rate varies for different airports from 1 to 3 for 1000 approaches

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- Review of ATM contribution to safe go-around
- **Go-around initiation**
- Go-around execution risk factors

Go-around Initiation (1)

Support efficient go-around decision

- **Weather information**
particular focus on wind checks (Windshear, tailwind) and RWY conditions...
- **ATC instruction due Traffic**
RTO, slow vacation...
- **ATC instruction due RWY Incursion**
- **RWY information**
FODs, animals on RWY, technical problems on the ground, laser interference...

Go-around Initiation (2)

Reduce the need of go-around

- **Appropriate active runway designation**
- **Traffic management**
Spacing, RWY Incursions...
- **Enabling stabilised approach**

Stabilised Approach

Avoiding ATC contribution

1. After inappropriate speed control instructions.
2. After delayed descent instructions.
3. After late change of runway or type of approach.
4. After assigning a landing runway with significant tailwind component.
5. After vectoring onto final approach at too short a range from touchdown.
6. After vectoring which requires interception of glide path from above.
7. After lack of or wrong information about distance to touchdown.

SKYbrary Toolkit

Free Resource available on-line

- Articles
- Videos
- A quiz
- Approach briefings awareness
- Training material
- www.skybrary.aero/index.php/Solutions:Stabilised Approach Awareness Toolkit for ATC

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Go-around Execution

Procedure design issues (1)

- More than one missed approach procedure for each runway.
- Complex missed approach procedure – e.g. conditional go-around procedure “*after xxx but not later yyy...*”
- Low first stop altitude and early turn in the missed approach procedure (e.g. below 2000ft).
- Lack of procedural de-confliction of the missed approach path from other traffic including traffic departing from another runway and wake vortex de-confliction for parallel runways

Go-around Execution

Procedure design issues (2)

- Existence of range of different missed approach procedure at an aerodrome with different stop altitudes
- Not allowing the crew to manage on their own the deceleration after 4 Nm
- Lack of clear responsibility for coordination and separation of go-around between APP and TWR

Go-around Execution

Air Traffic Control issues

- Late issuing, unpublished go-around instructions.
- Continued climb - Once above 2000ft, a radar heading which allows it
- Urged vectoring for a second approach after GA.
- Safe traffic management procedures for late (after DA/MDA) go-around

Circling approach

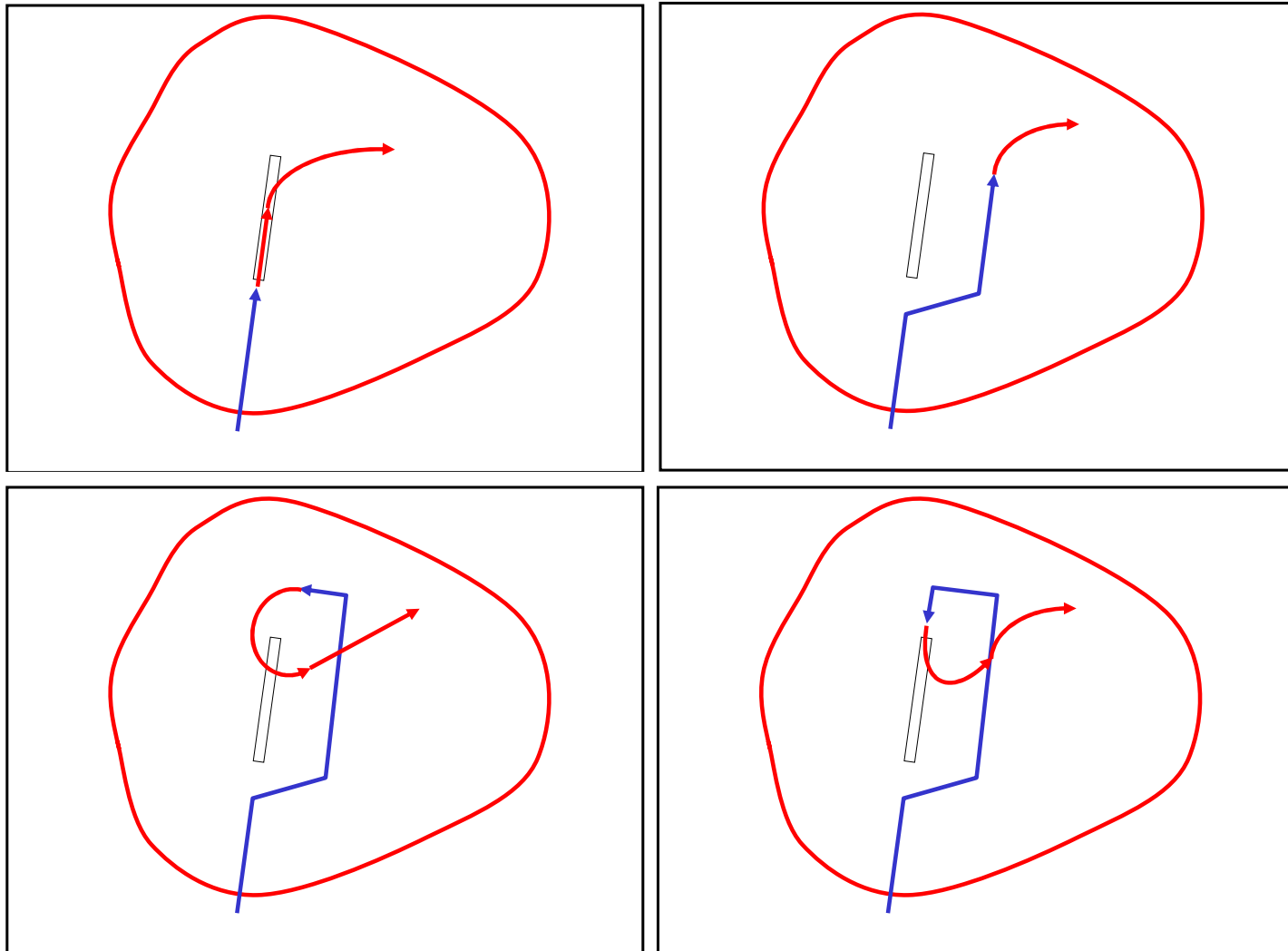
The procedure

PANS-OPS Doc 8168 :

- 7.4.1 *If visual reference is lost while circling to land from an instrument approach, the missed approach specified for that particular procedure shall be followed. The transition from the visual (circling) manoeuvre to the missed approach should be initiated by a climbing turn, within the circling area, towards the landing runway, to return to the circling altitude or higher, immediately followed by interception and execution of the missed approach procedure. The indicated airspeed during these manoeuvres shall not exceed the maximum indicated airspeed associated with visual manoeuvring.*
- 7.4.2 *The circling manoeuvre may be carried out in more than one direction. For this reason, different patterns are required to establish the aircraft on the prescribed missed approach course depending on its position at the time visual reference is lost.*

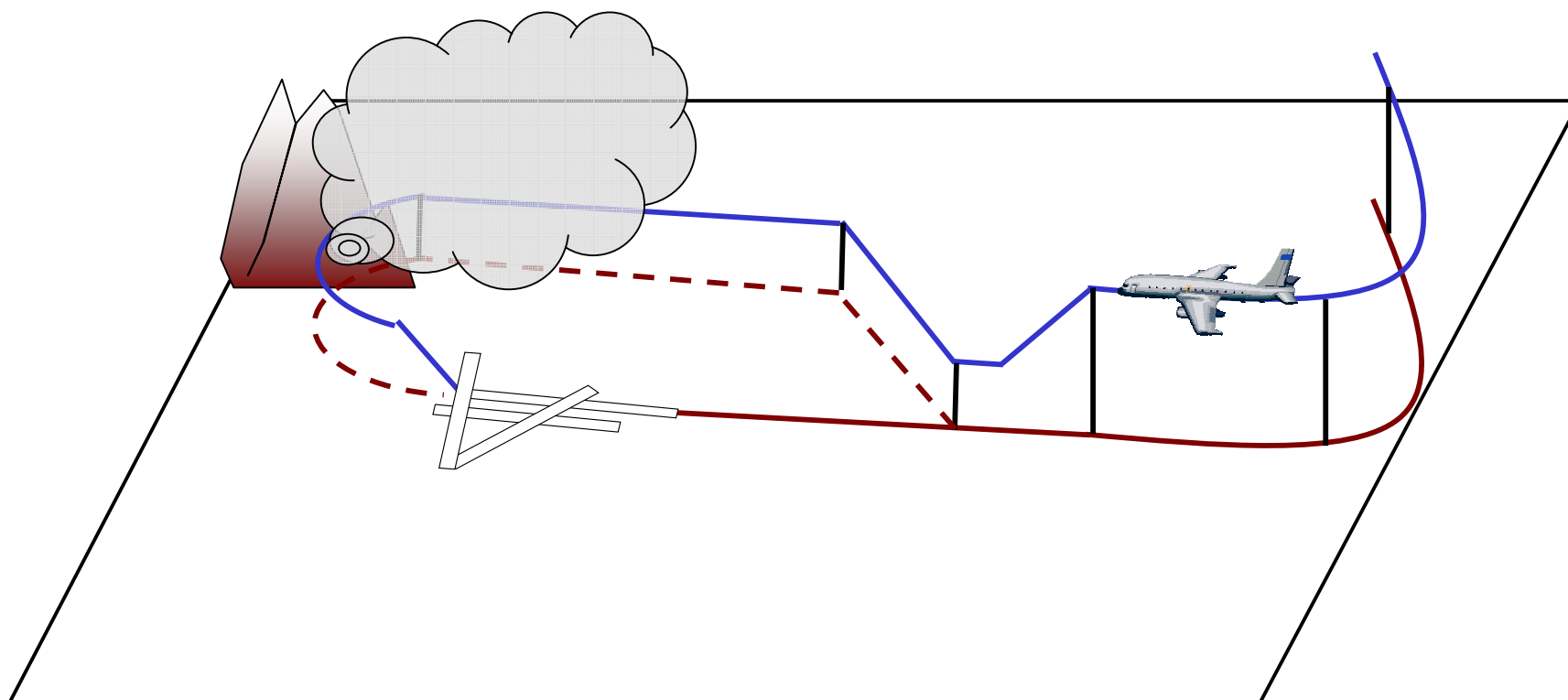
Circling approach

Uncertain manoeuvre



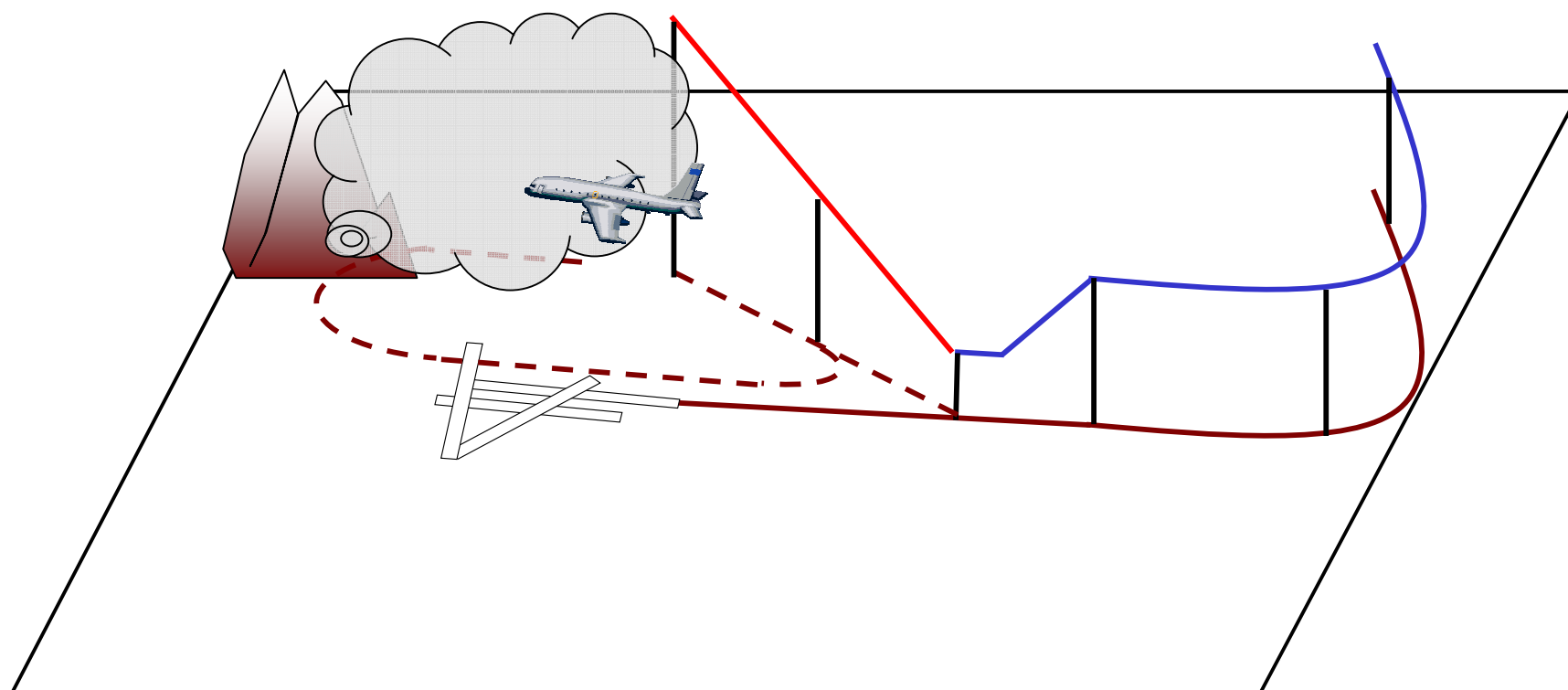
Circling approach

Where is the manoeuvring area?



Circling approach

How to initiate a climbing turn, within the circling area, towards the landing runway?



Go-around Execution

Circling approach

- Efficient traffic management procedures for go-around after circling approach
- Develop and publish circling procedures with prescribed track (also for the go-around)