

The ATR logo is displayed in white, italicized, sans-serif font on a solid red rectangular background.

**Flight Safety Conference**

29<sup>th</sup> – 30<sup>th</sup> November 2023

## **Securing VFR operations**

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Accident Investigator



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Flight Operations Support Manager



# Securing VFR operations

- Factual description
- ATR42-500
- Recorded take off weight:18600kg

“WHILE LANDING ON THE RUNWAY 25, AIRCRAFT SKIDDED OFF THE RUNWAY AND STOPPED IN THE OVER RUN OF RUNWAY 25 AT THE DISTANCE OF 41 FEET FROM THRESHOLD OF RUNWAY 07”



2000 ft  
IAS 234 kt  
AP  
disengaged

PI to FI  
during final

1000 ft  
IAS 200 kt

NP->100%

GPWS alert

430 ft  
LDG down

GPWS alert

230ft  
Flaps 15

Touchdown:  
Flaps 15  
IAS:130kt  
GS:161 kt

**ATR**

Maxer Technologies  
© 2009 Airbus

An aerial photograph of a rugged, mountainous valley. A river winds through the center of the valley. A pink line, representing a flight path, starts from the bottom right and moves towards the top center, following the valley's contours. The terrain is brown and rocky, with some green patches of vegetation. The sky is hazy and light-colored.

Low Terrain clearance

Tail wind during approach

Late Aircraft configuration

Non stabilized approach

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# Securing VFR operations

Reduce to white bug plus 10 knots so as to be in landing configuration at the broken bridge i.e. VAPP speed landing Flaps. Before landing checklist should be complete before the final turn. The final turn should be 5300 to 5400 (500 to 600 ft. AGL)



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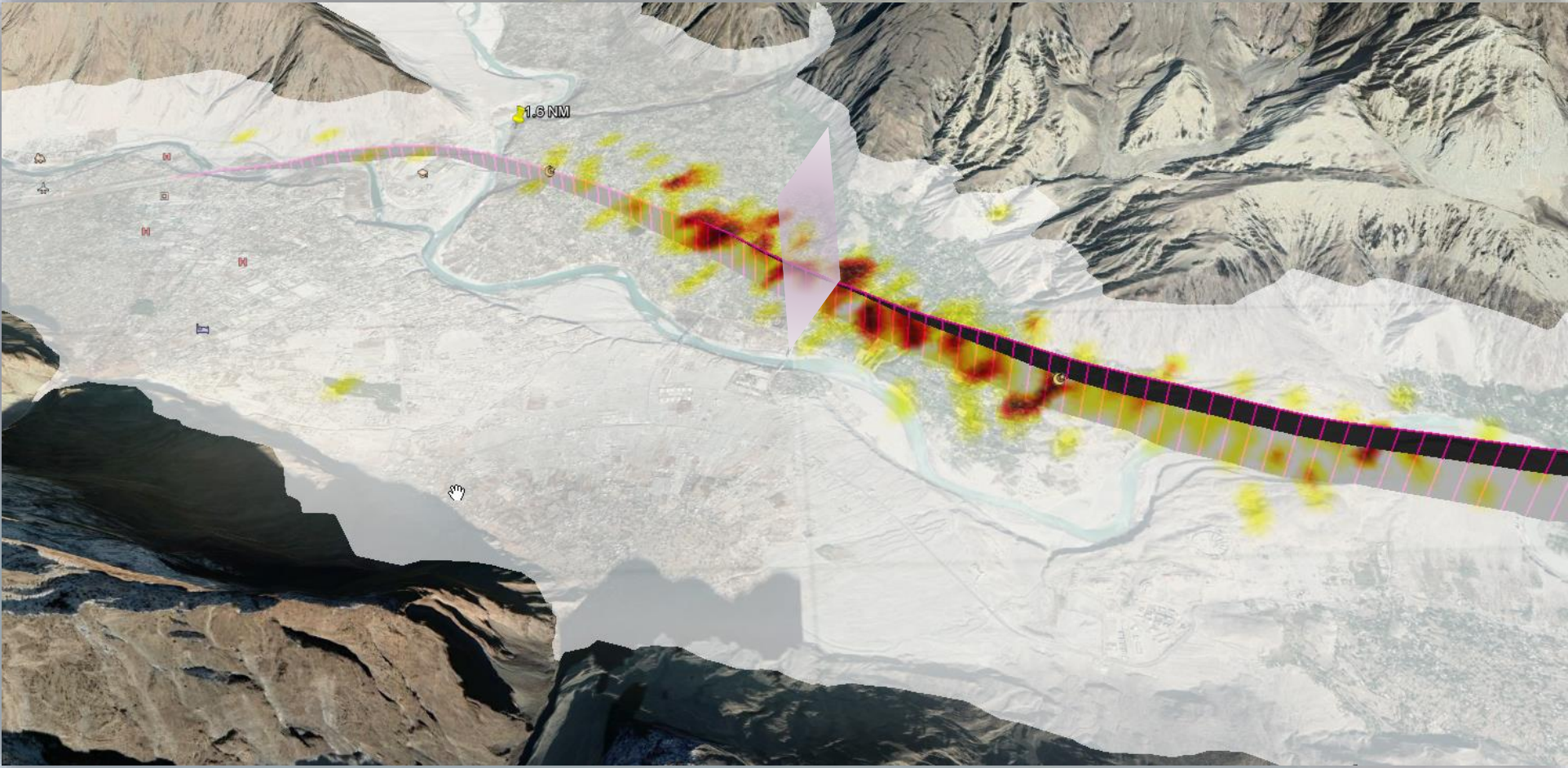


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# Securing VFR operations



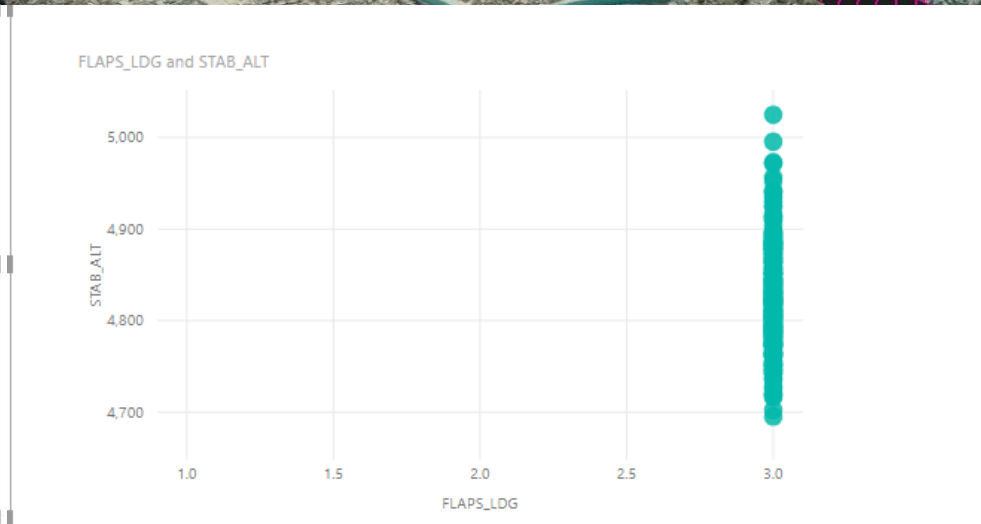
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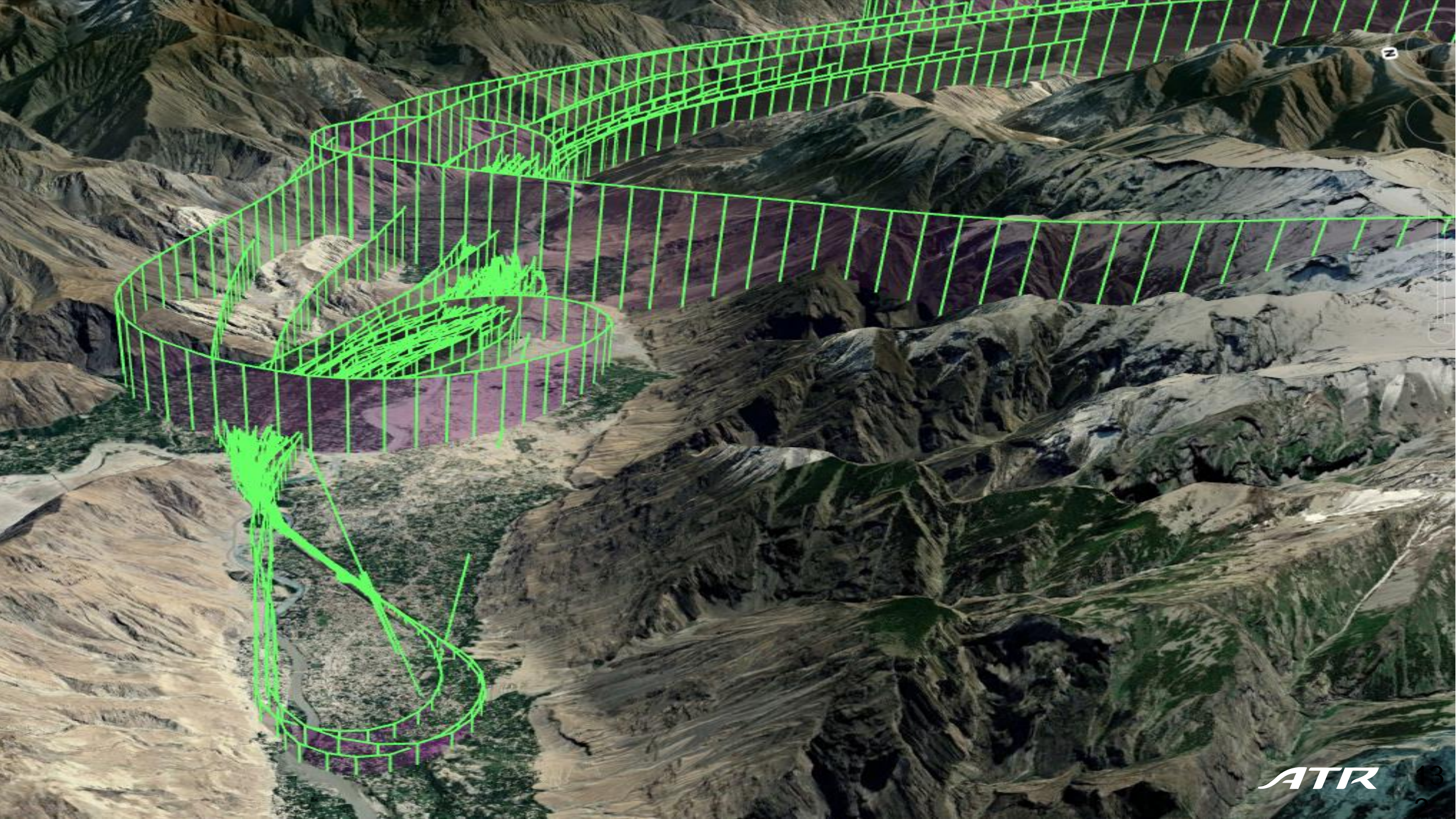
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# Securing VFR operations

Precursors were present in the data





*ATR*

# Securing VFR operations

HOW to Standardize VFR operations?

VFR operations cannot be standardized

# Securing VFR operations

HOW to Standardize VFR operations?

```
graph TD; A[HOW to Standardize VFR operations?] --> B[Turning VFR into IFR]; A --> C[Helping the flight crew with precise guidelines in the operating manual];
```

Turning VFR into IFR

Helping the flight crew with precise guidelines in the operating manual

## Flight Ops engineering role

Flight Operations Engineering can support flight crew to securing VFR operations

- 
- Analyze environment prior the flight
- Standardize the approach
- Study escape route
- Documentation
- Training
-

# Environment analysis

## Understand the environment.

- Aerodrome prerequisite
- Type of traffic on airport
- Prevailing weather
- Local weather phenomenon
- Relief and obstacles



Proximity  
between runway  
and road.



Max crosswind : 25 kt

Analyze

Standardize

Escape route

Documentation

Training

# Standardize the approach

- Analyze
- Standardize
- Escape route
- Documentation
- Training



# Escape route study

- Analyze
- Standardize
- Escape route
- Documentation
- Training

**Provide options  
to flight crew**



# Escape route study

- Analyze
- Standardize
- Escape route
- Documentation
- Training

Trajectory: CONTINUE TIL RUNWAY END INITIATE LEFT TURN THEN RIGHT TURN ON TRACK 250

ENG FAILURE  
-  
We go-around



# Escape route study

- Analyze
- Standardize
- Escape route
- Documentation
- Training

PASSING 500 FT  
—  
Committed to land in  
case of engine failure

# Escape route study

- Analyze
- Standardize
- Escape route
- Documentation
- Training

Balked landing  
-  
Continue RWY  
HDG to 12000ft.

# Escape route study

Turn left and perform  
LDG RWY 25

Turn right HDG  
130 in valley

Turn left HDG  
230

Engine failure at  
takeoff  
-  
CLIMB RWY AXIS

- Analyze
- Standardize
- Escape route
- Documentation
- Training

# Documentation

Analyze

Standardize

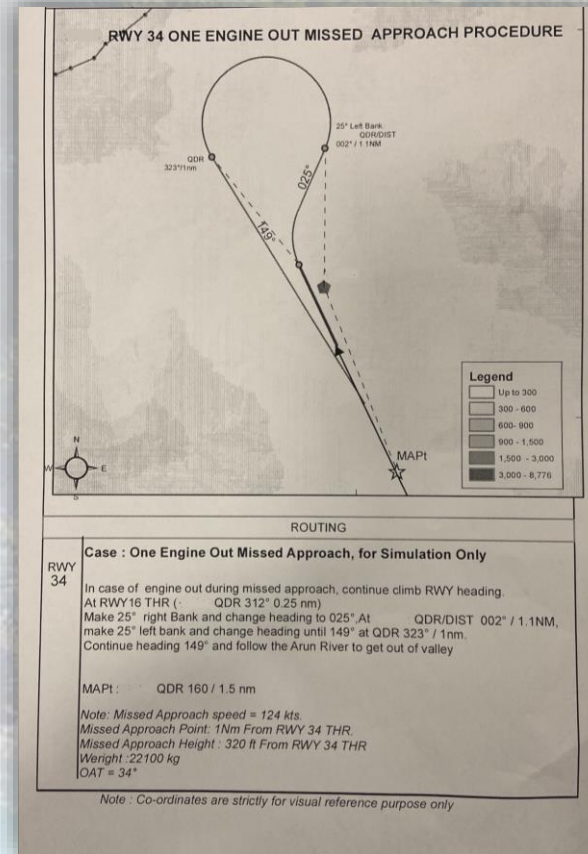
Escape route

Documentation

Training

OM/C 03-01-02	KEGE - Briefing chart	Revision n°1
<b>GENERAL LIMITATIONS</b>		
MINIMUM VISIBILITY = 5000m		
MAXIMUM AUTHORIZED WIND 30 KTS OMNIDIRECTIONAL		
<b>POINT OF ATTENTION</b>		
PARAGLIDING ACTIVITY AND SECTOR 8		
<b>VISUAL APPROACH RWY 25:</b>		
MAXIMUM LANDING WEIGHT = 21600 KG		
THE THREE RED FLASHING LIGHT MUST BE OPERATIVE		
BASE TURN SHOULD BE INITIATED AT 8500 FT MAXIMUM 170 KT.		
ONE ENGINE OUT MISSED APPROACH: CONTINUE RWY AXIS. PASSING THR RWY07 INITIATE RIGHT TURN QDR 283. CLIMB UNTIL 8000FT UNTIL MSA.		
<b>DEPARTURE RWY 25:</b>		
ENGINE OUT PROCEDURE: CLIMB RWY AXIS AND TURN RIGH HDG 130 IN VALLEY. AT 4200FT TURN LEFT HDG 230. AT 5500FT TURN LEFT HDG 238 THEN PERFORM LDG RWY 25.		

OM/C – Briefing page



Customized VFR approach chart

## Enhance OM part C

- Prescribe trajectory
- Aircraft performance
- Company waypoint
- Visual landwark
- Stabilisation policy
- Charts

# Documentation

- Analyze
- Standardize
- Escape route
- Documentation
- Training



# Key messages

**Briefing**  
Common project

**Documentation**  
Avoid improvisation

**Monitor**  
Flight  
Operation Quality Assurance

**Active PM**  
Crosscheck



***“Flight crew is always the last barrier but should not be the only one.”***