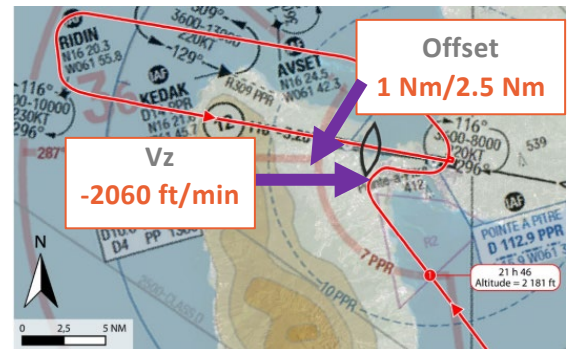


Loss of visual references during a night visual approach, MSAW warning in base leg, off-centred final approach, missed approach

SCENARIO

- VFR approach by night on crew request, based on weather assessment 4000 m, FEW 1300, BKN 2100 but visually better conditions
- Captain PF, A/P and A/THR OFF (Thrust idle)
- Late approach phase activation via MCDU
- Turning onto base leg:
 - aircraft configuration by PM (no flight path monitoring)
 - encountering cloud banks, loss of visual ref by PF
- Increasing roll leading to **undershoot** and – 2000 ft/min, undetected
- MSAW warning message not understood by PF, repeated by the controller 13 s later
- At the same time, situational awareness by PM, **go-around (460 ft RA)**



CONTRIBUTING FACTORS

to the decision to do a VFR approach by night, in adverse weather

- Flight path and flight time optimization
- Desire to maintain flying skills without using automation
- Local base practices

to the failure to hold the correct flight path

- PF in LH seat during a right-hand circling approach
- Incorrect weather assessment regarding the risk of low-height clouds
- Decision to disconnect A/P & A/THR, leading to high workload for flight crew



Executing a semi-direct, night visual approach in adverse weather without A/THR increases workload and reduces crew resilience to errors

SAFETY LESSONS

@Pilots: limit the number of difficulties

- Visual approaches... daylight or with A/P & A/THR ON only?
- Manual piloting... 3D approaches only?

@Operators: manage safety of visual approaches

- Operational/safety policy to define what is permitted and not permitted
 - If permitted, airline decision criteria to be available to flight crews...
... based on a risk assessment, to be updated based on safety events

