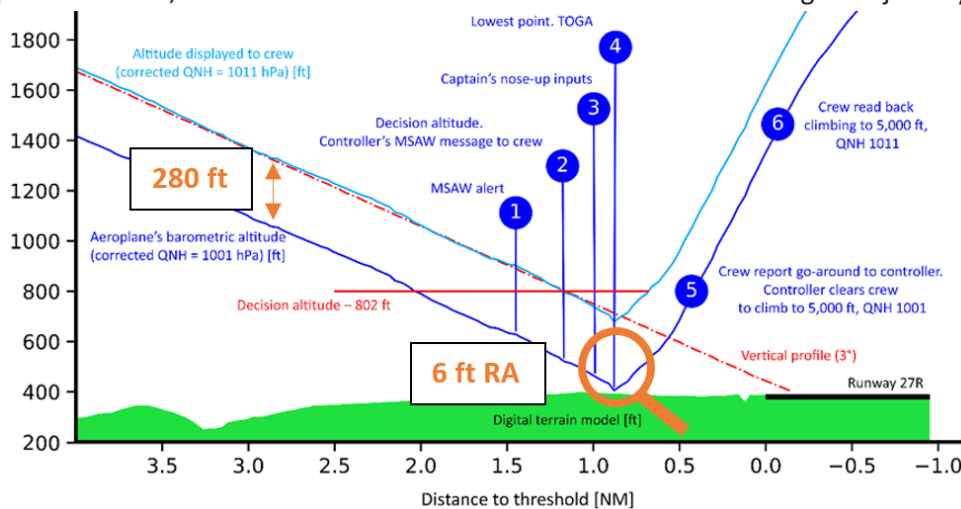


## Transmission of incorrect altimeter setting (QNH) by air traffic controller, near-collision with ground during satellite approach procedure with barometric vertical guidance

### SCENARIO

- Ongoing rain shower. No crew visual reference. **QNH 1001**. ILS out of service → RNP baro-VNAV
- Flight NSZ **4311** cleared by ATCO to descend (first altitude below the transition level) with **QNH 1011**
- No check of QNH with another source (not required by airline or manufacturer SOP)
- Flight NSZ **4311** cleared a second time by ATCO to descend with **QNH 1011** and cleared for RNP approach
- Flight NSZ **4311** transferred to TWR, cleared to land by ATCO
- Aircraft around 280 ft below the published vertical profile | Not detected by crew / ATCO
- Crew initiated a go-around at minima because of no visual reference at 52 ft RA
- Lowest point during the manoeuvre : **6 ft RA**. No TAWS alert. Near-CFIT
- Second approach similar, but with visual references and correction of the flight trajectory



### CONTRIBUTING FACTORS

#### To the carrying out of a barometric approach with an incorrect altimeter setting

- Human error in QNH communication, the probability of which can never be reduced to zero
- SOP for crew and ATCO not very robust in detecting or recovering from QNH error
- Inherent limitations of baro-VNAV function which is QNH dependent

### OPS SAFETY LESSONS

#### @Pilots: importance of QNH crosscheck against another source

- QNH preset during approach preparation
- Ineffective altitude-distance crosschecks

#### @Operations managers: importance of reinforcing the baro-VNAV specificities

- Why not explore availability of "Altimeter Monitor" function on the fleet? At least a TAWS update
- Why not explore implementation of a Flight Data Monitoring request for QNH error?
- Why not explore availability of LPV capabilities on the fleet?

For detailed information please view the [full report](#)