



Directive

SI/SB-001

Subject:

IFR Approach Minimum on Non-Instrument Runways

- Legal bases: ICAO Doc 8168 (PANS OPS)
ICAO Annex 14, Volume 1 (Aerodrome design and operations)
- Addressees: - Airports/aerodromes with IFR approach on non-instrument runways
- FOCA SI / SB (for specification of approach minima)
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1. Purpose

Runways on which aircraft land in accordance with instrument flight rules (IFR – *instrument runways*) are subject to more stringent regulations governing freedom from obstacles than runways on which only visual flight rules apply (*non-instrument runways*). IFR approaches on non-instrument runways represent a safety risk that this Directive sets out to reduce.

- Compliance with the requirement of freedom from obstacles is to be assured through the use of the model described below.
- The necessary visibility ranges for the early recognition of objects and obstacles are to be secured.

2. Scope of application

This Directive applies to all IFR procedures for runways that are constructed and equipped in accordance with the regulations governing *non-instrument runways* (ICAO Annex 14, Vol. 1).

3. Approach minimum on non-instrument runways

For non-instrument runways on which IFR approaches take place, the zones in which the regulations governing freedom from obstacles apply in accordance with ICAO Annex 14, Vol. 1 have to be analysed for both situations (i.e. for both *instrument* and *non-instrument runways*).

- The zones of *non-instrument runways* subject to the requirement of freedom from obstacles and the limitation of obstacles must be complied with (as before). These are of relevance for the compilation of the cadastre of obstacle limitation surfaces and the safety zone plan.

- The zones of *instrument runways* subject to the requirement of freedom from obstacles and the limitation of obstacles are used for recording all these obstacles. They are also used for analysing markings and lighting installations, as well as for determining the operational approach minimum. **It is the greatest penetration that determines the figure by which the obstacle clearance height (OCH), which is obtained from the PANS-OPS analysis, is increased.** Other requirements to increase the OCH/OCA in accordance with ICAO Doc 8168 have not been taken into account in the model. Figure 1 shows an MDA/MDH as an example.

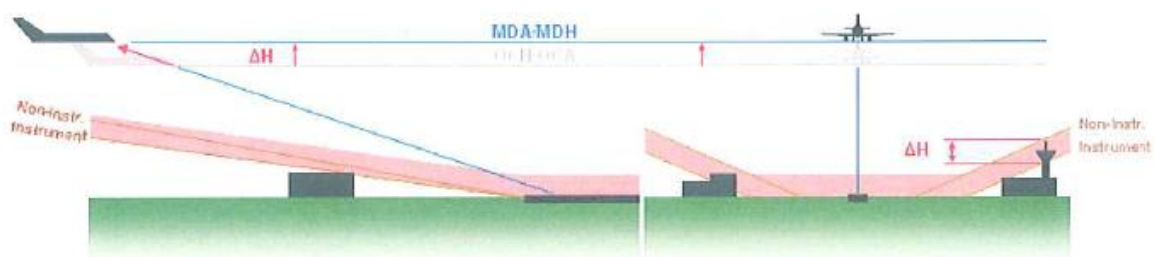


Fig. 1

4. Delimitation and area of application

It is not purposeful to increase an IFR approach minimum if this results in a value that is higher than the circling minimum for the runway concerned. In inclement weather conditions it is in accordance with the applicable regulation to also approach and land on non-instrument runways using the circling minimum. On the other hand it is necessary to comply with certain conditions in order to ensure that the situation with respect to obstacles can be recognised and assessed from the aircraft at a sufficiently early stage and under adequate visibility conditions (situational awareness).

The length of the area of application is limited so that no obstacles can become relevant that are of no significance at all. The last segment of the final approach from the position of the aircraft at IFR minimum down to the runway is protected by the visual segment surface (VSS) of the PANS OPS construction. PANS OPS also provides adequate protection in the event of an overshoot.

The horizontal zone, in which the greatest penetration of the obstacle limitation surface has to be identified for *instrument runways*, is thus restricted to the corresponding *instrument runway strip* along the entire length of the runway, including the lateral obstacle limitation surfaces up to their cutline with the inner horizontal surface at 45 M ARP (*aerodrome reference point*).

The corrected approach minimum is not higher than the circling minimum and never lower than 500 feet above ground level (Fig. 2).

If no circling minimum exists for the runway concerned, this has to be determined in advance (Doc 8168).

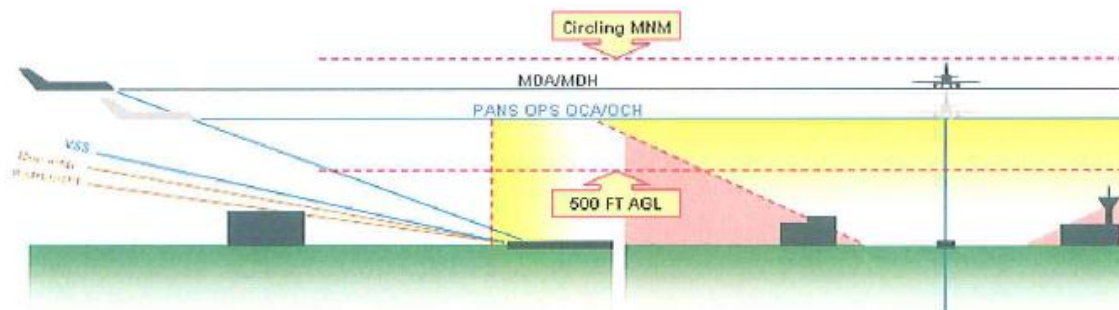


Fig. 2

5. Implementation

Implementation and compliance at the various airports and aerodromes will be verified within the framework of periodical checks. All processes at each airport/aerodrome will be simultaneously adapted.

Each airport/aerodrome is responsible for updating and supplementing the corresponding situational documentation.

6. Entry into force

This Directive entered into force on 1 January 2010.

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