

## Reduced Runway Separation Minima for Night Operations

### POSITION

IFALPA is opposed to Reduced Runway Separation Minima being applied for **Night Operations**.

The provisions to reduce runway separation have been agreed worldwide and should be used accordingly. The documented safety assessment for every runway that will be used is a major aspect in reducing separation but maintaining a high level of safety.

With more and more utilization of stable approach criteria and thus the higher possibility of conducting a missed approach, the separation standards between two succeeding departing aircraft should also apply between a departing aircraft and an aircraft conducting a missed approach.

ICAO Doc 4444 states in Chapter 7.11 the requirements to reduce the separation standards of 7.9.2 and 7.10.1 of ICAO Doc 4444 (*In general, Aircraft shall not be cleared to land or take off until the other respective aircraft has either crossed the end of the runway, initiated a turn or cleared the runway in use*).

- Prior to applying the reduced separation standards an appropriate and documented Safety assessment for each runway, on which the reduction will be used, should be carried out.
- Reduced Runway Separation Minima should not be applied between departing and preceding landing aircraft.
- Wake vortex separation should be applied as well as a maximum tailwind of 5kt, minimum visibility of 5 km and ceiling not lower than 1000ft.
- No major affect (contamination like ice, slush, snow, water) on the braking action will be accepted.
- When applying the reduction between two departing aircraft minimum separation should exist immediately after departure of the second aircraft.
- Traffic information should be given to the succeeding aircraft.
- The procedure can only be used during daytime (30 minutes after sunrise until 30 minutes before sunset).

During daylight operations, the required visibility of 5 km should assure, together with the traffic information to the succeeding aircraft, that the respective aircraft will be able to see the preceding aircraft and not be surprised that a reduction in the standard separation as laid down in 7.9.2 and 7.10.1 occurred.

At several ICAO Panel Meetings there have been suggestions that Reduced Runway Separation Minima could be applied to night operations.

- Night operations at airports add a complexity that is not applicable to daylight operations.
- Night operations are vastly different to daylight operations. Where Reduced Runway Separation Minima may be assessed as safe for daylight operations, this assessment is simply not possible for night operations, taking into account the added complexities of lighting and physiological limitations.
- Accurate identification, along with the requirement of continued monitoring of the preceding aircraft in the multitude of airport approach and runway lights, along with the multiple night-time visual deficiencies of pilots cannot be guaranteed.

## LIGHTING

The approach lighting systems and runway lighting systems vary tremendously from one airport to another. Variations of this lighting include, but are not limited to:

- Differing approach lighting systems including the length of approach lighting as well as intensity,
- Differing light installations on runways and taxiways

## PHYSIOLOGICAL ISSUES

A pilot's vision is susceptible to various deficiencies that are not applicable during daylight operations. These visual deficiencies include but are not limited to:

- Night myopia, where slightly nearsighted individuals viewing blue-green light at night may experience blurred vision. Even pilots with perfect vision will experience a sharpness decrease as the pupil diameter increases.
- Dark adaption
- Varying individual night-vision capability
- Reduced depth perception
- Limitations in visual acuity
- Visual cue deficiencies