

## Circling approaches

Circle-to-land approaches pose a significantly higher risk to aviation than approaches which provide lateral and vertical guidance. ICAO controlled flight into terrain (CFIT) studies have shown that runway-aligned approaches (LNAV only) are some 25 times safer than circling approaches, and that once some form of vertical guidance is added to these approaches the safety margin is increased again by a factor of eight (ref. ICAO paper A37-WP/148 TE/79 10/9/10).

Typically, circling approaches involve:

- ▶ A high workload
- ▶ An initial approach with a tailwind
- ▶ A visual segment when one crew member's attention is outside of the flight deck
- ▶ And very often marginal weather and challenging terrain.

The following recent accidents are all examples of circling approaches which ended in an accident:

- ▶ A321, Islamabad Pakistan, 28 July 2010, 152 fatalities.
- ▶ A310, Comoros, 30 June 2009, 152 fatalities,
- ▶ B767, Busan, Korea, 15 April 2002, 129 fatalities.

Many more incidents and serious incidents have been associated with circling approaches, as with visual approaches which include prescribed tracks, to the point that several major international airlines have now stopped carrying out circling approaches for safety reasons.

IFALPA strongly supports the replacement of circling approaches by approaches with lateral and vertical guidance.

Whilst this replacement is taking place and circling approaches are still performed, IFALPA recommends:

- ▶ A clear depiction of the vertical profile on the circling approach charts
- ▶ Specific initial and recurrent training (including theoretical/background training on circling areas, obstacle situation, procedural setup, practical training (sim) including use of automation, go around from various positions)
- ▶ A clear indication of the protection envelope associated with the published operating minimums on the approach charts (PANS OPS, TERPS, or other)