

FIGHTING RUNWAY INCURSIONS:

PREVENTION MEASURES

ICAO's focus on Runway Incursion (RI) prevention dates back to 2001, when the Air Navigation Commission (ANC) requested that the Secretariat launch a dedicated incursion education and awareness campaign.



This programme commenced in 2002 with a series of seminars coordinated with ICAO's Regional Offices and was followed-up with the distribution of two new RI mitigation instruments: the *ICAO Runway Safety Toolkit* (2005, CD-ROM); and Doc 9870—*Manual on the Prevention of Runway Incursions* (2007).

In 2004, a RI definition was introduced into PANS-ATM (Doc 4444) to standardize related terminology and data collection. Amendment 12 to Annex 13 recently included the classification of RIs with severity A as serious incidents, subject to reporting and investigation. Additionally, Amendment 2 to PANS-ATM has introduced new RI reporting requirements for both ATS and flight crew along with new RI reporting forms contained in the *Manual on the Prevention of Runway Incursions* (Doc 9870).

Also in 2004, Circular 305, *Operation of New Larger Aeroplanes (NLA) at Existing Aerodromes*, was introduced. The circular provides details of a study undertaken by ICAO and participating States, International Organizations and manufacturers. Amongst others, it describes potential infringement issues due to the large dimensions of these aircraft, in addition to operational mitigations.

As well as the existing Standards and Recommended Practices (SARPs) addressing the integrated use of visual aids to help prevent RIs, the recent Amendment 10-A to Annex 14, Volume I,

introduced new provisions for enhanced taxiway centre line markings and mandatory instruction signs to further strengthen RI prevention through visual aids measures. Guidance material on visual aids for navigation is provided in Doc 9157—*Aerodrome Design Manual, Part 4, Visual Aids*.

Contemporary approaches to help prevent RI also include strict adherence to the radiotelephony procedures of Annex 10, Volume II—*Aeronautical Communications*, in conjunction with the relevant ATC and flight crew procedures of PANS-ATM (Doc. 4444). Significant support to the application of such procedures can be derived through use of Surface Movement Guidance and Control Systems (SMGCS) and Advanced SMGCS (A-SMGCS), including surface movement radar, ADS-B and multilateration and other possible sensors. Relevant guidance is provided in the *ICAO SMGCS Manual* (Doc 9476), *A/SMGCS Manual* (Doc 9830) and *Manual of Radiotelephony* (Doc 9432).

Further information on RI prevention aids, including the *ICAO Runway Safety Toolkit*, the *Runway Incursion Severity Classification (RISC) Calculator* and Doc 9870—*Manual on the Prevention of Runway Incursions*, can be found at: www.icao.int/FSIX/res_ans.cfm



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