



International Civil Aviation Organization

North American, Central American and Caribbean Office (NACC)

**Seventh Central American Air Navigation Experts Working Group Meeting  
(CA/ANE/WG/7)**

**Ninth Central Caribbean Working Group Meeting (C/CAR/WG/9)**

ICAO NACC Regional Office, Mexico City, Mexico, 5 to 9 March 2012

- Agenda Item 3: Air Navigation Matters**
- 3.3 Specific Developments in Air Navigation**
- AGA

### **RUNWAY SAFETY**

(Presented by the Secretariat)

#### **SUMMARY**

Runway safety is a collective responsibility encompassing different organizations (aerodrome operator, air navigation service provider (ANSP) and airline) as well as individuals (controller, pilot, vehicle operator).

ICAO has developed a Runway Safety Programme including prevention and mitigation of runway incursions/excursions and other occurrences related with runway safety. To date, the activation of Runway Safety Teams (RSTS) for prevention and mitigation of the diverse occurrences related with runway safety is being considered.

#### **References:**

- ICAO High Level Safety Conference (HLSC 2010)
- ICAO Global Runway Safety Symposium (GRSS 2011)
- ICAO/FAA/IFATCA Regional Runway Safety Seminar for the NAM/CAR/SAM Regions (Miami, United States, 12-14 October 2011) (<http://www.mexico.icao.int/Meetings/Meetings.html>)
- Doc. 9870 – *Manual on the prevention of Runway Incursion.*
- EUROCONTROL - *Airport Safety, preventing runway incursions European Action Plan for the prevention of runway incursions.*

**Strategic Objective**

*This working paper is related to Strategic Objective A.*

## **1. Introduction**

1.1 A wide range of factors contributes to runway incursions/excursions including less-than perfect aerodrome design, technology, procedures, training, regulations and human error. While incidents continue occurring due to runway incursions and excursions, these will have catastrophic consequences and airport authorities will need to keep their efforts towards the reduction of these occurrences.

1.2 Several action plans such as initiatives by States in Europe, Canada and United States contain a number of recommendations oriented towards reducing runway accidents and incidents and improve safety.

1.3 ICAO Runway Safety Programme has been developed to include prevention and mitigation of runway incursions/excursions and other related occurrences. Likewise, ICAO has developed guidance material and tools to deal with the different aspects related with runway safety and has organized several events to keep situational awareness and encourage the creation of RSTs including all the actors involved in airport operation.

1.4 This WP is related with Regional Performance Objective (RPO) 7 of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP) - *Enhance capacity and efficiency of aerodrome operations* item c), *Implementation of action plans for runway incursion prevention*.

## **2. Recommended Action Plans to Improve Runway Safety**

2.1 There is a number of recommendations aimed at aerodrome operators, ANSPs, airlines, and regulators among others. The following are some recommended best practices to improve runway safety:

- Runway safety can only be improved through a joint action due to local differences in infrastructure design, different types of aircraft operating in aerodromes and other factors that should be taken into account
- Airport operators should provide comprehensive training on radio-telephony to ground vehicles chauffeurs
- Implement a policy to prevent aircraft from crossing stop bars
- Currently, efforts are oriented towards two main areas: special devices that provide the situational location to pilots and systems providing air traffic controllers with an alert when an runway incursion occurs
- Implement an Action Plan to prevent runway incursions
- Implement the advanced Surface Movement Guidance and Control System (A-SMGCS). The implementation of a Level 1 A-SMGCS provides a precise picture of traffic surveillance at or adjacent to the runway, it includes the position and identification of the known traffic, as well as information on unknown traffic (or intruders). Level 2 will include improvements to Level 1 providing warnings to the controller on potentially hazardous situations associated with runway incursions

## **3. Creation of Runway Safety Go Teams (RST Go Team)**

3.1 The first ICAO Regional Runway Safety Seminar for the NAM/CAR/SAM Regions was held in October 2011, in Miami, United States. The main objective was to provide the event participants with updated guidance material as well as tools to face several aspects related with safety including prevention and mitigation of runway incursions/excursions, including a suitable combination of visual aids, procedures, controls, regulations, management and facilities for disseminations of information.

3.2 As part of the event, participants analysed and discussed several study cases related with the effective participation of RSTs. Likewise, as a result, it was decided to support, monitor, follow-up and report the status and implementation of RSTs as well as regional and national actions developed to reduce associated risks in accordance with requirements. On the other side, the creation of RST Go Teams, led by ICAO and the participation of incumbents to assist States in the creation of RST were supported.

3.3 Considering that the Regional Aviation Safety Group – Pan America (RASG-PA) includes runway excursions in its work programme through Safety Enhancement Initiatives (SEIs), RASG-PA leads the implementación of RSTs in Pan America.

3.4 Initial participating States are: Aruba, Bahamas, Dominican Republic, Jamaica, Mexico and Turks and Caicos Islands.

3.5 Support for the creation of RST Go Teams consists in ICAO Safety Collaborators assisting and being mentors of the development and a gap analysis of a RST, advising by identifying the different opportunities areas, providing the recommendations to support the implementation of said RSTs. The implementation of the pilot project launched for the creation of an RST in the Mexico City international airport is supported by the Mexican DGAC and international collaborators.

#### **4. Conclusion**

4.1 The Meeting is invited to:

- a) note the importance of creating RST Go Teams;
- b) express its intention to receive support for the creation of RST Go Team in the airports of its States; and
- c) participate in the NAM/CAR Runway Safety Seminar/Workshop to be held in the NACC Office in Mexico City in the second half of 2012, as a follow-up to the first event held in Miami in 2011.