



## International Civil Aviation Organization Regional Aviation Safety Group - Pan America (RASG-PA)

#### WORKING PAPER

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Cuestión 5 del Orden del Día:

Informe del Equipo del Informe Anual de Seguridad Operacional (ASRT)

### **RASG-PA ANNUAL SAFETY REPORT (ASR)**

(Presented by the Secretariat)

#### **EXECUTIVE SUMMARY**

This working paper presents to the Ninth Regional Aviation Safety Group — Pan America Meeting (RASG-PA/9):

- the results of the review to the Annual Safety Report (ASR), fifth edition;
- the latest decisions of the RASG-PA Executive Steering Committee (ESC) regarding subsequent editions of the report;
- the distribution of the ASR sixth edition; and
- the work plan for the production of the ASR seventh edition.

Action:	Stated in paragraph 3.1 of this working paper
Strategic Objectives:	• Safety
References:	<ul> <li>RASG-PA/02 Meeting Report</li> <li>RASG-PA Annual Safety Report</li> <li>RASG-PA/04 Meeting Report</li> <li>RASG-PA/ESC/16 Meeting Report</li> <li>ICAO Global Aviation Safety Plan (GASP)</li> <li>ISSG Global Aviation Safety Roadmap (GASR)</li> </ul>

#### 1. Introduction

- 1.1 The last edition of the ICAO Global Aviation Safety Plan (GASP) contains the following 4 safety areas that need improvement:
  - standardization
  - collaboration
  - investment
  - information sharing

- 1.2 These 4 areas should be addressed first with a safety oversight approach during an estimated implementation period until 2017, when States should have developed effective safety oversight systems to reach 60% compliance in ICAO safety audits, with the industry and the States exchanging safety information. The Bogota and the Port-of-Spain Declarations both pursue the goal of achieving 80% average compliance in the SAM and CAR Regions.
- 1.3 Between 2017 and 2022, all States should have implemented their SSP, and the RASGs should have incorporated safety management programmes.
- 1.4 Between 2022 and 2027, States should reach the necessary level to be able to work with predictive safety management system models.
- 1.5 This vision has been the basis for the work of RASG-PA since its creation, through the adoption of a proactive and/or predictive approach to risk assessment with a view to formulating safety strategies based on the safety information gathered and analysed.
- 1.6 Since its very beginnings, RASG-PA concluded that an annual safety report (ASR) should be developed in a context of collaboration and safety information sharing.
- 1.7 This report would contain 3 sections as follows:
  - reactive;
  - proactive; and
  - predictive
- 1.8 The consecutive versions of the annual safety report reflect the transition from mainly reactive information to a balance among the three sections, which shows the maturity of the Pan American Region with respect to the capture, exchange, and analysis of safety data. The safety intelligence contained in the sixth edition of the report makes it possible to identify, focus on, and prioritize areas of interest for regional safety, in order to expedite the development and implementation of mitigation measures.
- 1.9 It is expected that the methodology used in the annual report for analysing reactive, proactive and predictive information, being consistent with Annex 19 to the Convention on International Civil Aviation, will be replicated by State Safety Programmes (SSP) to expedite the identification of trends, support decision-making, and measure the level of maturity attained by each management system.

## 2. Methodology for the development of the ASR, based on a collaborative exchange of information

- 2.1 The drafting of the RASG-PA Safety Annual Report requires an active participation by team members, leading to a joint analysis of safety data provided by the different sources of information, using for the assessment the metrics specifically developed for this purpose. Likewise, this will permit the establishment of a shared vision for the identification of the main areas of interest, classifying them by their origin into reactive, proactive or predictive.
- 2.2 From 25 May to 5 June 2015, the team in charge of developing the ASR met at the ICAO South American Regional Office in Lima to work on the drafting of the ASR sixth edition. Currently, the sixth edition is in the phase of editorial review and design, with the final version expected to be available in July 2016.
- 2.3 For the drafting of the sixth edition of the ASR, data provided by ICAO, Boeing, IATA, CARSAMMA, and the SRVSOP was used for the different sections of the report. In particular, this edition shows a better balance among reactive, proactive, and predictive sections, in accordance with the maturity of the safety data capture and analysis systems in the Pan American Region.
- The sixth edition of the ASR shows that the main safety categories of interest in the Region are still Loss of control in flight (LOC-I), Runway excursions (RE), Controlled flight into terrain (CFIT), and Near miss collision/mid-air collision (MAC), showing a decreasing trend during the analysed periods, in accordance with the respective sources of reactive, proactive and predictive information used in each case.
- 2.5 Specifically, the reactive section contains valuable information on accident statistics for the period 2005-2014, showing the importance of LOC-I, CFIT and RE as the three main categories in the Region, and MAC as an emerging category, based on the mortality risk analysis.
- Regarding the section on proactive information, the assessment of compliance by States of ICAO standards and procedures based on the USOAP Programme shows that the average effective implementation increased from 65.2% in 2010 to 69.46% in December 2015, and that 13 States in the Pan American Region have an effective implementation (EI) of ICAO SARPs below 60%. The EI associated to the qualification and training of technical personnel continues to be the critical element with the lowest level of compliance, together with air navigation services surveillance (ANS) and ground aerodromes (AGA). A review of IOSA audits revealed findings that might be related to the main accident categories (LOC-I, RE, and CFIT), especially with respect to policies on collision avoidance and flight crew training in procedures for aeroplane upset recovery and wind shear evasion and recovery.

- 2.7 Likewise, the section on predictive information showed that unstable approach continues to be a concern identified as an RE precursor, with a downward trend. The same behaviour was observed in the number of landings following an unstable approach in the CAR and SAM Regions. Metrics related to TCAS RA events (identified as MAC precursors) also showed a downward trend, while events related to GPWS (CFIT precursor) showed a slight increase towards the end of 2014.
- 2.8 Finally, the report provides precise guidelines and an evolution structure to better represent the safety reality in the Region. Thus, the ASR team (which met in Lima on 6-17 June 2016 to start working on the seventh edition) continues trying to optimise the interaction among the different sources of reactive, proactive and predictive information, and the "safety intelligence" concept with a view to better supporting safety-related decisions.

#### 3. Suggested action

- 3.1 The RASG-PA/9 is invited to:
  - a) Take note of the information provided in this working paper; and
  - b) take note of the sixth edition of the RASG-PA ASR, and approve its publication through the fast-track mechanism once the revision and editing processes are completed.