


# ASSESSING AND MINIMIZING RUNWAY SAFETY RISK THROUGH A COLLABORATIVE APPROACH

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 **In an industry whose challenges and needs are constantly evolving, ICAO's Programme in the area of runway safety is evolving as a consequence.**

The current reality of increasingly congested airspace, safety disparities between regions and, importantly, real-time news reporting of air accidents and public perception of how these accidents are handled, are some of the challenges faced by the aviation sector.

Major progress has been made recently in the area of runway safety. In 2012, there was a significant reduction in runway safety-related accidents (as defined in ICAO Annex 13), with a decrease of 21 per cent. In addition, the global accident rate involving scheduled commercial operations for 2012 decreased significantly to 3.2 accidents per million departures.

While these results are favorable, runway accidents have represented the highest single occurrence category for all air accidents over the past ten years. Assembly Resolution A37-6, entitled Runway Safety, resulting from the 37<sup>th</sup> Session of the Assembly in 2010, called upon States to undertake initiatives to enhance runway safety through the establishment of a Runway Safety Programme using a collaborative approach including regulators, aircraft operators, aerodrome operators, and air navigation services providers to prevent and mitigate the effects of runway excursions, incursions and other related occurrences.

Pursuant to the Resolution, ICAO held a Global Runway Safety Symposium in 2011 and, following a commitment from 11 partner aviation organizations, Regional Runway Safety Seminars (RRSSs) were introduced. The RRSS Programme was developed to highlight such matters as hazard identification, risk assessment and mitigation strategies; the value of establishing Runway Safety Teams (RSTs); resources available for RSTs; and the regional strategy to establish, promote and provide ongoing support to RSTs. RRSSs are held regionally and are hosted by a State in cooperation with ICAO and at least one of the 12 Runway Safety Partners: ACI, CANSO, EASA, EUROCONTROL, FAA, FSF, IAOPA, IATA, IBAC, ICCAIA, IFALPA, and IFATCA.

"While acknowledging the progress made by the industry, IATA, together with its industry partners, recognizes the need for continued improvement in the area of runway safety, which is

one of the industry's principal risk areas. Events such as runway excursions, runway incursions, hard landings and tail strikes are areas we still have to work on. Therefore, IATA believes that it is appropriate to address all runway safety issues in a comprehensive and collaborative manner and in this regard, we are focusing our efforts, attention and resources on working with other stakeholders including ICAO, Airports Council International and others to develop solutions to address this issue," stated Guenther Matschnigg, Senior Vice President, Safety and Flight Operations, IATA.

ICAO's overarching focus is on trying to become more preventive and predictive of occurrences and accidents, rather than waiting for something to happen and then trying to learn from investigating an event after it has taken place.

"ICAO feels that the best approach to this is a multidisciplinary one whose objective is to gather together representatives from the various stakeholders in runway safety in order to promote the establishment of local runway safety teams using a proactive approach," said Nancy Graham, Director, Air Navigation Bureau at ICAO.

To date, RRSSs have been held in a number of countries around the world, with two scheduled for November this year, one in Turkey and another in Malaysia. Each Seminar is adapted to needs of the region and feedback is collected to determine what support is required. For the RRSS held in Antigua and Barbuda, for instance, general aviation issues were considered to be very important. In Morocco, some attendees expressed the need for training in how to work collectively, and in how to negotiate for the implementation of the solutions they develop with the impacted service providers.



Safety Team



Angela Gittens, Director General, Airports Council International (ACI), delivers the Opening Remarks at the Regional Runway Safety Seminar in Agadir, Morocco.



David Gamper, Director, Safety and Technical at Airports Council International (ACI), moderated Session 2 on Runway Excursions — Hazards and Mitigation Strategies at the Seminar in Agadir, Morocco.

Participant feedback has been extremely positive. David Gamper, Director, Safety and Technical at Airports Council International (ACI), has attended several RRSSs and is confident of its benefits. "In Africa, there were excellent interventions and speeches, with a very participative audience and a huge thirst for more information." Gamper noticed great enthusiasm for the sharing of experiences at the various seminars. "I think that these seminars should be continued in all parts of the world and ICAO is certainly playing a key role in working with the rest of the industry," he continued.

Ms. Graham noted that the recent reduction in runway safety-related accidents is encouraging, although a direct cause-and-effect with the RRSSs cannot be established. "For now, it's a positive sign and we need to keep moving in that same direction and see if we can maintain those same results over a more significant period," she stated.

### MATRIX MANAGEMENT APPROACH

In August 2013, ICAO introduced the Matrix Management concept to the Air Navigation Bureau, involving a transition from the use of traditional, single-discipline teams to a more flexible multidisciplinary team approach to problem solving.

A matrix structure is conducive to providing the Organization greater agility in setting up projects that require resources from various sections or disciplines. Individuals involved in a matrix team have the opportunity to interact more with their colleagues in other parts of the Bureau. The objective is for flight operations, aerodrome and air traffic management experts, for example, to develop solutions together rather than separately in isolation of each other, which will benefit industry stakeholders, as well.

Matrix Management represents a cultural change in the delivery of implementation assistance that will require training as team members become accustomed to this new way of working. If the Runway Safety Programme is not implemented using a Matrix Management approach, or something similar involving multi-disciplinary collaboration between multiple internal and external entities, it won't be achieved as effectively and efficiently as it could be.

### NEW HANDBOOK FOR RUNWAY SAFETY TEAMS

The first edition of the ICAO Runway Safety Team Handbook is being developed in conjunction with ICAO's Runway Safety Partners and a draft of the document appears on the Organization's Runway Safety website ([www.icao.int/RunwaySafety](http://www.icao.int/RunwaySafety)).

The purpose of the Handbook is to provide guidance for Runway Safety Teams at airports. It advises them as to Runway Safety Team objectives, possible team participants and how to get set up, and it includes examples of meeting agendas and topics that should be covered. Similar to the Matrix Team concept, ideally it would involve, among other entities, airlines – which are users of the airport – air traffic controllers, aerodrome operators, and the State regulator as a member, observer or facilitator for ideas that may be put forth. ■



Success in aviation safety is inevitably the result of intensive cooperation. The organizations noted here have been instrumental to aviation's recent and improved outcomes in the runway safety area and ICAO is grateful for their continuing commitments to safety progress.