



International Civil Aviation Organization

# Global Runway Safety Symposium ICAO's Harmonization Initiatives

John Illson

Air Navigation Bureau

25 May 2011

# Promoting Standardization

FIGHTING RUNWAY EXCURSIONS:

## RUNWAY END SAFETY AREAS AND ARRESTING SYSTEMS

Recent research programmes and evaluations of actual aircraft overruns into arresting systems have demonstrated predictable and effective safety benefits. One good example is the Engineered Material Arresting System (EMAS), which has successfully arrested several aircraft overrunning runways in recent years.



Annex 14, Volume I—*Aerodrome Design and Operations* to the *Convention on International Civil Aviation*, contains international Standards and Recommended Practices (SRPs) requiring the provision of RESA to reduce the risk of damage to aircraft undershooting or overrunning a runway.

Recognizing the importance of the provision of RESA and the effectiveness of an arresting system, the ICAO Secretariat, with the assistance of the Aerodromes Panel, has made an amendment proposal to Annex 14, Volume I, to strengthen the requirement for RESA and to introduce arresting systems into the Annex.

According to the proposal, all types of runways are required to be provided with RESA, including non-instrument runways with code numbers 1 and 2. The introduction of arresting systems in relation to the provision of RESA offers additional mitigating measures to address aircraft overruns.

As proposed, the length of a RESA may be reduced where an arresting system is installed with demonstrated

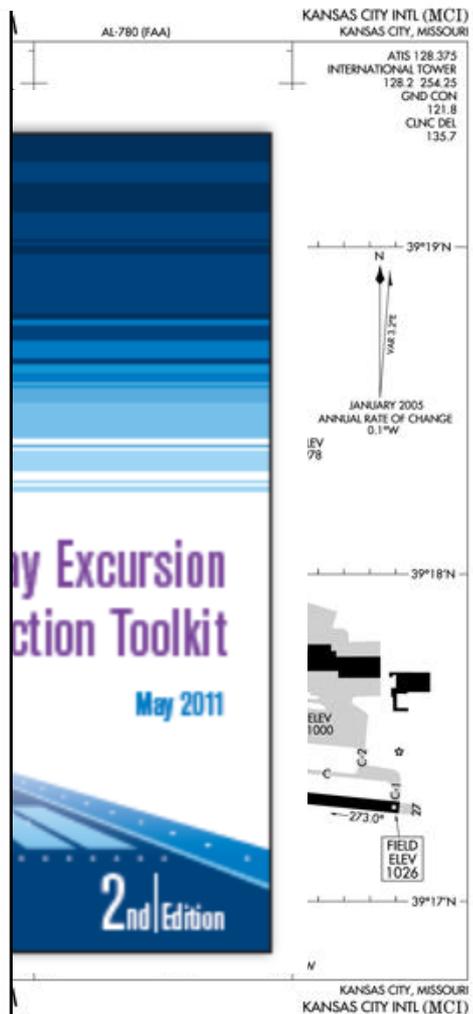
performance that provides a level of protection at least equivalent to the prescribed RESA.

On 3 May, 2011, the Air Navigation Commission (ANC) completed its preliminary review of the proposed amendments on RESA and arresting systems, authorizing their transmission to Member States and appropriate international organizations for comment.

Based on the comments received and further analysis by the ICAO Secretariat, the ANC will conduct its final review of the proposed amendment on RESA and arresting systems and will submit its recommendation to Council for adoption. It is envisaged that this amendment will become applicable toward November 2012.

Associate guidance material will be included in Doc 9157—*Aerodrome Design Manual, Part 1—Runways*, after the proposed SRPs become applicable.

08157



Runway Excursion  
Prevention Toolkit  
May 2011

2nd Edition

NC-3, 12 FEB 2009 to 12 MAR 2009



**SAFETY**

www.icao.int



# Monitoring Standardization

## USOAP Audit Areas

primary aviation legislation and civil aviation regulations

civil aviation organization

personnel licensing and training

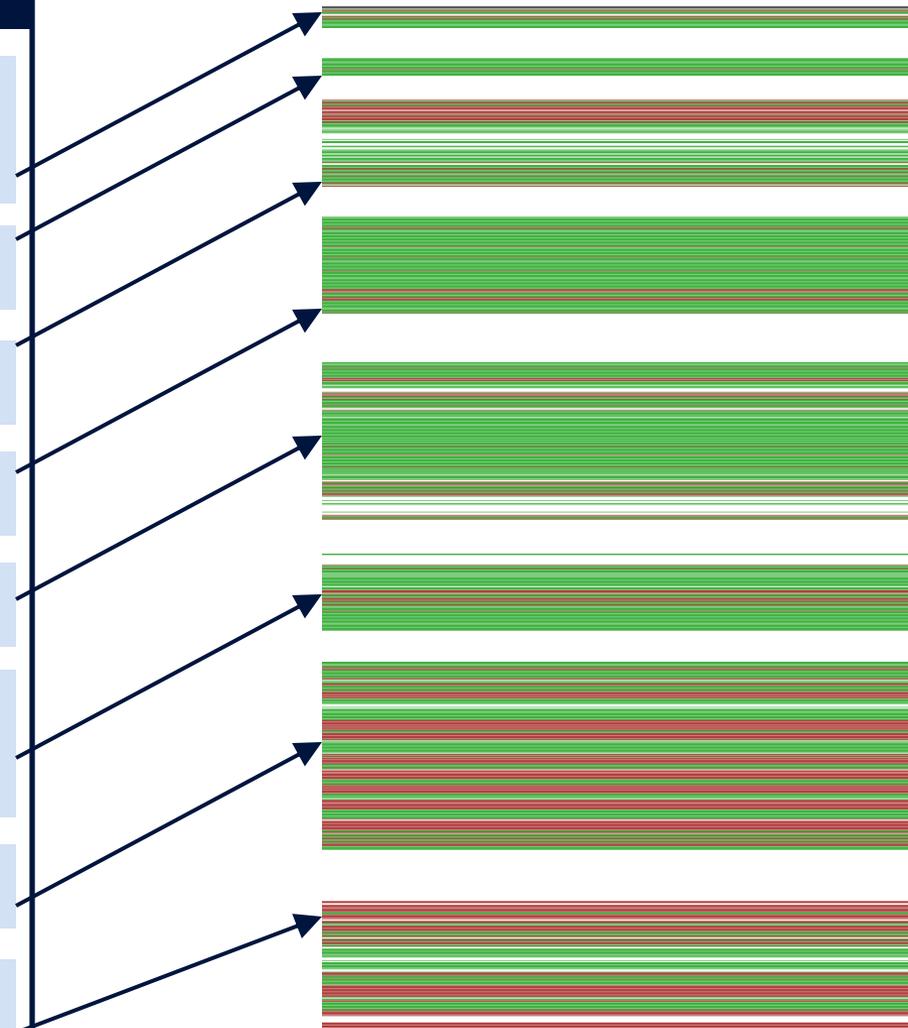
aircraft operations

airworthiness of aircraft

aircraft accident and incident investigation

air navigation services

aerodromes



# Monitoring Standardization

## Focus on specific areas related to Runway Safety

Air navigation services

Aerodromes

# Worldwide deficiencies in implementation of ICAO Standards



## Air navigation services

### ➤ *Air traffic management*

*CAA oversight - Organization, staffing and training: 72%*

### ➤ *Air traffic management*

*Operational - Safety management: 60%*

## Aerodromes

➤ *Organization, staffing and training of the aerodrome regulatory authority: 69%*

➤ *Technical and administrative guidance and equipment: 72%*

➤ *Safety management systems: 76%*

# Ensuring a Multidisciplinary Approach

## Facilitating Information Exchange:

### → Code of Conduct

- High-level principles to ensure appropriate sharing and use of safety information

### → Safety Information Protection Task Force

- Recommendations for ICAO to ensure availability of safety information, consistent with legal / judicial requirements
- Communication and outreach strategies being developed
- Deliverables expected within 18 months

### → Technical Harmonization Study Group

- Development of common safety metrics and analysis methods
- Requirements for interoperable tools and information systems
- Work planned to begin early next year

# Harmonizing & sharing information

**SECTION A: INITIAL NOTIFICATION**

---

**OCCURRENCE**

**FILING**

State Reporting: *	State File #:
Reporting Org.:	Date (dd/mm/yyyy):
Scope of Investigation:	
Report Moderator:	
Telephone:	Email: *

---

**CLASSIFICATION**

<b>Occurrence Class*:</b>	<b>Occurrence Category</b> (choose where applicable, min. 1 category)*:			
<input type="radio"/> Accident <input type="radio"/> Serious Incident <input type="radio"/> Incident <input type="radio"/> Not Determined	<input type="checkbox"/> ARC <input type="checkbox"/> BIRD <input type="checkbox"/> CFIT <input type="checkbox"/> CTOL <input type="checkbox"/> F-NI <input type="checkbox"/> GCOL <input type="checkbox"/> LOC-I <input type="checkbox"/> MAC	<input type="checkbox"/> RAMP <input type="checkbox"/> RE <input type="checkbox"/> RI-A <input type="checkbox"/> RI-VAP <input type="checkbox"/> SCF-NP <input type="checkbox"/> SCF-PP <input type="checkbox"/> USOS <input type="checkbox"/> ATM	<input type="checkbox"/> LOC-G <input type="checkbox"/> TURB <input type="checkbox"/> FUEL <input type="checkbox"/> ADRM <input type="checkbox"/> LALT <input type="checkbox"/> F-POST <input type="checkbox"/> WSTRW <input type="checkbox"/> ICE	<input type="checkbox"/> EVAC <input type="checkbox"/> SEC <input type="checkbox"/> CABIN <input type="checkbox"/> AMAN <input type="checkbox"/> LOLI <input type="checkbox"/> UIMC <input type="checkbox"/> GTOW <input type="checkbox"/> EXTL <input type="checkbox"/> UNK

---

**WHEN**

Local Date (dd/mm/yyyy): *	Local Time (hh:mm):
----------------------------	---------------------

---

**WHERE**

State of Occurrence: *	FIR:			
<b>Location of Occurrence:</b> Near				
Latitude: Deg	/ Min	/	<input type="radio"/> North	<input type="radio"/> South
Longitude: Deg	/ Min	/	<input type="radio"/> East	<input type="radio"/> West

Improving reporting and information sharing techniques

North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montreal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Office  
Bangkok



Thank you