



*International Civil Aviation Organization*

**Runway and Ground Safety Working Group**

**Second Meeting (RGS WG/2)**  
*(Cairo, Egypt, 19 - 21 May 2015)*

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**Agenda Item 2: Implementation of Aerodrome Safety Priorities and Objectives in the MID Region**

GLOBAL AND REGIONAL DEVELOPMENT ON RGS

*(Presented by the Secretariat)*

**SUMMARY**

This paper presents the outcome of RASG-MID/4 and DGCA-MID/3 meetings taking into consideration the global and regional developments related to RGS.

Action by the meeting is at paragraph 3.

**1. INTRODUCTION**

1.1 The Regional Aviation Safety Group - Middle East (RASG-MID) has been established by the First meeting of the Middle East Directors General of Civil Aviation (DGCA-MID/1, UAE, 22-24 March 2011).

1.2 The Fourth meeting of the Regional Aviation Safety Group – Middle East (RASG-MID/4) was hosted by the General Authority of Civil Aviation (GACA) in Jeddah, Saudi Arabia, from 30 March to 1 April 2015.

1.3 The Third meeting of the Directors General of Civil Aviation-Middle East Region (DGCA-MID/3) was hosted by Qatar Civil Aviation Authority (QCAA) at the Marriott Hotel, Doha, State of Qatar, from 27 to 29 April 2015.

**2. DISCUSSION**

2.1 The meeting may wish to note that the Second MID Regional Runway Safety Seminar (MID-RRSS/2) was successfully held in Dubai, UAE, 2-4 June 2014. The event was organized by ICAO and hosted by the General Civil Aviation Authority (GCAA) of UAE.

2.2 The first day of the MID-RRSS/2 focused on the need for collaborative approach, runway excursion and incursion hazards, and mitigation measures with an overview of the technology advances. The second day was dedicated to a Workshop on Runway Safety Team (RST) and the kick-off of the MID RS Go-Team. The third day was reserved to a Workshop on Aerodrome Certification.

2.3 One of the main outcomes of the MID-RRSS/2 was the launch of the MID RS Go-Team. The MID-RRSS/2 also highlighted the importance of sharing best practices, use of available technology, and the use of RST as an effective and inexpensive tool to enhance runway safety. The MID-RRSS/2 Summary of Discussion is provided at **Appendix A** and available on ICAO MID website at <http://www.icao.int/MID/Pages/meetings.aspx>.

2.4 The meeting may wish to note that the RASG-MID/4 meeting reviewed the outcome of RSC/3 and developed fifteen Conclusions and Decisions out of them five Conclusions are directly related to RGS as listed at **Appendix B**.

2.5 In addition, RASG-MID/4 meeting noted that the ANC commended, after review of the RASG-MID/3 report, the coordination of work between the MIDANPIRG and RASG-MID on safety-related issues and the transfer of aerodrome safety to RASG-MID.

2.6 The RASG-MID/4 meeting reviewed the outcome of the RSC/3 meeting related to the MID Region Safety Strategy and endorsed the inclusion of new Safety Indicator “Number of established Runway Safety Team (RST) at MID International Aerodromes”.

2.7 The DGCA-MID/3 meeting supported the RASG-MID Conclusion 4/9 encouraging MID States to establish RST at their international aerodromes, support Runway Safety Go-Team activities, and request Runway Safety Go-Team visits if required.

2.8 In addition, the DGCA-MID/3 meeting agreed to the following Conclusion related to noise monitoring and control:

*DGCA-MID/3 CONCLUSION 3/6- NOISE MONITORING AND CONTROL*

*That, States be urged to:*

- a) conduct a comprehensive noise study in order to identify the airports where mitigation measures are necessary to minimize the number of people affected by aircraft noise, and develop associated plans of action, accordingly; and*
- b) send an update on the results of the study and actions implemented/planned to the ICAO MID Regional Office by **December 2015**.*

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to note the outcome of the RASG-MID/4 and DGCA-MID/3 meetings and take actions, related to RGS, as appropriate.

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## Second MID Regional Runway Safety Seminar

(MID-RRSS/2)

*2-4 June 2014  
Dubai, UAE*



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Second MID Regional Runway Safety Seminar  
Summary of Discussions

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**I. GENERAL**

**1.1 Place and Duration**

1.1.1 The Second MID Regional Runway Safety Seminar (MID-RRSS/2) was successfully held at the Intercontinental Hotel, Festival City, Dubai, UAE from 2 to 4 June 2014. The first day of the MID-RRSS/2 focused on the need for collaborative approach, runway excursion and incursion hazards, and mitigation measures with an overview of the technology advances. The second day was dedicated to a Workshop on Local Runway Safety Team (LRST) and the kick off of the MID RS Go-Team. The third day was reserved to a Workshop on Aerodrome Certification.

**1.2 Attendance**

1.2.1 The Seminar was attended by a total of one hundred ninety four (194) participants from six (6) MID States (Egypt, Iran, Oman, Saudi Arabia, Sudan and United Arab Emirates) and eight (8) Organizations/Industries (ACI, Airbus, Boeing, COSCAP-GS, Eurocontrol, FAA, IATA and IFATCA).

**1.3 Agenda/Work Programme**

1.3.1 The MID-RRSS/2 Programme included the following Sessions:

- a) Session 1: Opening Ceremony
- b) Session 2: The Big Picture
- c) Session 3: Runway Excursions
- d) Session 4: Runway Incursions
- e) Session 5: Technological Advances
- f) Session 6: Local Runway Safety Team, Integrated Approach to Runway Safety
- g) Session 7: Managing Runway Safety, Aerodrome Case Studies
- h) Session 8: Local Runway Safety Teams, Supporting Initiatives
- i) Session 9: Regional Go-Team Initiative
- j) Session 10: Appreciation Ceremony
- k) Session 11: Aerodrome Certification Overview
- l) Session 12: Aerodrome Certification Interactive Workshop
- m) Session 13: Seminar Outcomes and Closing

1.3.2 The MID-RRSS/2 detailed Agenda/Work Programme and Presentations are available at the ICAO MID Regional Office Website: <http://www.icao.int/MID/Pages/2014/RRSS-2.aspx>.

**1.4 Objective**

1.4.1 The MID-RRSS/2 aimed to:

- a) provide a forum to exchange views and share experience/best practices techniques for managing runway safety;
- b) provide States and service providers in the MID Region with guidance related to the establishment of an effective Runway Safety Team (RST);
- c) launch the MID RS Go-Team initiative; and
- d) explore ways and means to enhance implementation of Aerodrome Certification in the MID Region.

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## **II. SUMMARY AND OUTCOME OF DISCUSSIONS**

### **2.1 The Big Picture - Panel Discussion**

2.1.1 This session provided an overview of the Runway Safety (RS) on global and regional level. It highlighted the main runway safety risks and mitigation options. In particular, it was highlighted that:

- RS is still the top safety risk area, since more than 50% of the accidents worldwide and in the MID Region are related to RS.
- RS is multi-layered and multi-dimension and accordingly a collaborative approach towards the reduction of the RS-related risks is a must.
- One of the best mechanisms to foster the collaborative approach is the establishment of LRST.
- There is a need for improved communication about RS-related occurrences and best practices, within an organization and inter-organizations.
- The enhancement of Aerodrome Certification processes in the Region would enhance RWY Safety significantly.

#### ***Recommendation:***

1. *To foster and expedite the implementation of the provisions of the Assembly Resolution A37-6 (1/2) and the Recommendations of the GRSS and MID-RRSS/1, including those related to the establishment of LRSTs.*

### **2.2 Runway Excursions (RE) – Panel Discussion**

2.2.1 This session provided an overview of the RE hazards and prevention measures from different perspectives. It was highlighted that:

- RE is the highest accident category, representing 23% of all accidents over the period (2009-2013).
- Un-stabilized approach remains the major contributing factor to RE, especially when an unstable approach is associated with a failure to go-around.
- Although un-stabilized approach is a critical factor, there are other factors that should be considered such as tailwind, long landing, high speed and runway condition. In particular, quality of runway condition, which requires specific action at airport level and adequate standardization.
- A Detailed Implementation Plan (DIP) is being developed under the RASG-MID to reduce the number of un-stabilized approaches through specific training for pilots and ATCOs and promotion of pilot adherence to SOPs for approaches (IATA is the Champion of this DIP).

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- Another DIP was developed by the RASG-MID in coordination with MIDANPIRG in order to identify and prioritize the airports/runways where the implementation of PBN approaches would reduce the number of un-stabilized approaches and accordingly the number of REs. Emirates Airlines indicated its willingness to support this initiative.
- There is a need for enhancement of communication between pilots and ATCs.

***Recommendation:***

1. *To expedite the development/implementation of the DIPs related to RE (un-stabilized approach) under the RASG-MID.*

**2.3 Runway Incursions (RI) – Panel Discussion**

2.3.1 This session provided an overview of the RI hazards and preventions from different perspectives. The following was highlighted:

- Importance of ensuring that aeronautical data and charts (AIS publications) related to aerodromes are available, accurate, and maintained up-to-date.
- All aviation disciplines are to be represented in the Aerodrome Runway Safety Team.
- Importance of having standardized operations for use of stop bars.
- The new provisions of Amendment 11 to Annex 14 Vol I would improve runway safety.

***Recommendation:***

1. *To develop and publish standardized guidance on acceptable use of stop bars.*

**2.4 Technological Advances**

2.4.1 This session provided an overview of the available technology to support Runway Safety with examples of its use.

***Recommendations:***

1. *Future technological efforts should focus on “Predictive” systems, rather than reactive.*
2. *A multi-stakeholder aviation forum should be established to work with system providers to undertake R&D advances in relation to sharing of systems and single platform concepts (integrated systems).*
3. *Industry to find a way of sharing areas of best practice where technological solutions are being trialed, or formal installation has been undertaken to solve a runway safety issue.*

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## **2.5 LRST Workshop and Launch of the MID RS Go-Team**

2.5.1 The LRST Workshop provided an overview of LRSTs requirements highlighting the need for Integrated Approach supported by best practices.

2.5.2 The MID RS Go-Team was officially launched further to the endorsement through the RASG-MID/3 Conclusion 3/2. The “Guidance for the conduct of MID Runway Safety Go-Team visits” was finalised as at **Appendix A**. The initial plan is to conduct two Go-Team visits per year. The first Go-Team visit will be to Khartoum, Sudan end of 2014 and the second one will be to Muscat, Oman beginning of 2015.

2.5.3 In particular, the following was highlighted:

- RST provides effective and inexpensive tool to enhance runway safety.
- Participation by all stakeholders in the LRST is paramount.
- IATA Global Aviation Data Management (GADM) could be used by the LRSTs and RS-Go Team to identify areas of improvement.

### ***Recommendations:***

1. *Support the RS Go-Team initiative as a way to expedite the establishment of LRSTs.*
2. *Go-Teams may benefit from data and information available with the recipient State, RASG, ICAO, IATA (GADM), and ACI (APEX) to support their missions.*
3. *Encourage the establishment of National RWY Safety Team (NRST).*

## **2.6 Aerodrome Certification Workshop**

2.6.1 The Aerodrome Certification Workshop provided an overview on the status of Aerodrome Certification implementation in the MID Region and the associated safety targets which were endorsed as part of the MID Region Safety Strategy. The Workshop included Table Top Exercises on:

- Application and initial assessment process
- Certification verification activities
- Issuance of aerodrome certificate and oversight

## **2.7 General/Common Outcomes**

2.7.1 The Seminar provided valuable panel sessions and opportunities for sharing of experiences, collaboration and coordination on runway safety. The following was highlighted during the different sessions of the Seminar:

- sharing lessons learnt, efficient training, awareness and communication;
- the use of common/standard taxonomy for reporting RS incidents and accidents;



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- reporting culture, data sharing, and the establishment of a Regional Aviation Safety database;
- RST as an essential element of required SMS Aerodrome change management process.

***Recommendations:***

1. *Invite ICAO to consider convening a second Global RWY Safety Symposium.*
2. *Invite ICAO to develop additional RS provisions.*

**2.8 ICAO Runway Safety i-KIT**

2.8.1 USBs including the ICAO Runway Safety i-KIT have been distributed to all participants. The USB memory sticks were donated by ICAO, ACI, UAE, and IATA.

**2.9 Exhibition**

2.9.1 An exhibition, was conducted concurrently with the Seminar. Two Companies participated in this Exhibition to showcase their products, as follows:

- a) **Bayanat Airports Engineering & Supplies** which represents International Technology Developers, to deliver a full range of Terminal, Airside & Runway and Air Traffic Management systems and services. Bayanat introduced MALMS as a supplier of airfield lighting photometric test systems and inspection services. In addition, it introduced the MALMS automated runway lighting cleaning machines, which minimizes operational costs and enhances runway safety.
- b) **Stratech Systems Limited** is engaged in the design, development, integration, implementation, maintenance and project management of information technology and advanced technology systems. Stratech introduced iFerret(tm) as the first intelligent Vision-based FOD detection system, providing real-time, automated FOD detection, location, classification, measuring and recording. iFerret(tm) was approved by FAA and deployed at Singapore Changi International Airport and others.

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**APPENDIX B**

**LIST OF RASG-MID/4 CONCLUSIONS (DIRECTLY RELATED TO RGS)**

**CONCLUSION 4/6: ADDITIONAL RGS SEIS**

*That, additional RGS SEIs be developed as follows:*

- a) RGS/4 on Aerodrome Safeguarding with Egypt as Champion supported by Sudan;*
- b) RGS/5 on Wildlife Control with Sudan as Champion supported by Egypt and UAE; and*
- c) RGS/6 on Laser-attacks with Egypt as Champion supported by UAE.*

**CONCLUSION 4/7: REDUCTION OF UN-STABILIZED APPROACH RISK**

*That, States that have not yet done so, be urged to minimize the risk of unstabilized approach through (but not limited to):*

- a) training of operators (pilots, air traffic controllers/air navigation service providers, and aerodrome operators);*
- b) development of relevant Guidance materials;*
- c) encouraging the reporting of un-stabilized approaches, assessment and mitigation of the associated risk and conduct of necessary safety oversight, as part of SMS implementation; and*
- d) review of Standards Operation Procedures.*

**CONCLUSION 4/8: DEVELOPMENT OF ADDITIONAL RUNWAY SAFETY PROVISIONS**

*That, ICAO consider the development of additional Runway Safety provisions.*

**CONCLUSION 4/9: RUNWAY SAFETY TEAM (RST) AND RUNWAY SAFETY GO-TEAM**

*That, MID States, that have not yet done so, be encouraged to:*

- a) foster the implementation of Runway Safety Teams (RST) at their international aerodromes and associated safety management systems, making use of the Runway Safety Implementation Kit (I-Kit) which includes the RST Handbook and Runway Safety Go-Team methodology;*

- b) *consider supporting the regional Runway Safety Go-Team activities; and*
- c) *encourage their aerodrome operators to request Runway Safety Go-Team visits, as required.*

**CONCLUSION 4/11: MID REGION SAFETY STRATEGY**

*That,*

- a) *the MID Region Safety Strategy at Appendix 3Q is endorsed; and*
- b) *States be urged to provide necessary information/feedback to the ICAO MID Regional Office related to all Safety Indicators included in the MID Region Safety Strategy.*

- END -