



International Civil Aviation Organization

Regional Aviation Safety Group - Middle East

Fourth Meeting (RASG-MID/4)
(Jeddah, Saudi Arabia, 30 March - 1 April 2015)

Agenda Item 3: Regional Performance Framework for Safety

**UPDATE ON DEVELOPMENT AND IMPLEMENTATION OF
SEIs & DIPs RELATED TO RGS**

(Presented by RGS WG Chairperson)

SUMMARY

This paper provides an update on initiatives made by the MID-RAST through the Runway and Ground Safety Working Group (RGS WG) in the area of Runway Safety (RS) including updates on the related Safety Enhancement Initiatives' (SEIs) and Detailed Implementation Plans (DIPs).

Action by the meeting is at paragraph 3.

1. INTRODUCTION

1.1 The RASG-MID/3 (Kuwait, 27 - 29 January 2014), through Decision 3/1, established the Runway and Ground Safety Working Group (RGS WG) under the MID Regional Aviation Safety Team (MID RAST) to address all aerodrome safety issues.

1.2 The RASG-MID/3 endorsed SEIs and DIPs related to Runway Safety (RS) and mandated the RGS WG to monitor the implementation of these initiatives.

2. DISCUSSION

2.1 Updates on DIPs for RGS SEIs

2.1.1 The RGS SEIs and DIPs are at **Appendix A**.

2.2 Reassignment of MID-RAST/RGS/1

2.2.1 During the RSC/3 meeting (Cairo, Egypt, 9-11 December 2014), it was recognized that Un-stabilized Approach is a common factor for Runway Excursions and CFIT and RSC/3 meeting agreed that the scope of the MID-RAST/RGS/1 should be addressed under the CFIT DIPs. Accordingly, the CFIT Coordinator was requested to develop additional CFIT DIPs on specific training for pilots and air traffic controllers to avoid unstabilized approaches and promotion of pilot adherence to Standard Operating Procedures for approaches.

2.2.2 MID-RAST/RGS/1 has therefore been deleted with a clear note to refer to MID-RAST/CFIT.

2.3 Update on MID-RAST/RGS/2

2.3.1 The meeting is invited to recall that the UAE is the Champion of MID-RAST/RGS/2 which focuses on *development guidance material and training programmes to support the creation of action plans by local aerodrome Runway Safety Teams (RST)*.

2.3.2 The DIP is completed, thanks to UAE efforts. A summary of actions related to the MID-RAST/RGS/2 DIP is at **Appendix B**. The below paragraphs highlight the significant successes related to this SEI.

2.3.3 ICAO MID promulgated the first RASG MID Safety Advisory (RSA-01) in November 2014 regarding *Guidance for Harmonising the Use & Management of Stop Bars at Airports*. The document was developed by the UAE in coordination with other MID States and the ICAO MID Regional Office. The RGS WG adapted the document to the regional needs with an aim to improve civil aviation safety and efficiency in the Middle East by applying ICAO Global Aviation Safety Plan (GASP) principles through a collaborative and coordinated approach in partnership with all aviation stakeholders.

2.3.4 In June 2014, the UAE General Civil Aviation Authority (GCAA) hosted the ICAO *Second Middle East Regional Runway Safety Seminar (RRSS/2)* in Dubai, UAE. The event was sponsored by Dubai Airports and supported by Emirates Airline and Etihad Airways and was attended by approximately 200 representatives. Further details are provided in *WP/6*.

2.3.5 In September 2014, the RGS WG prepared a draft Safety Advisory regarding *Guidance on Regulatory Framework Supporting Establishment of Local Runway Safety Teams*. This document was developed by the UAE in coordination with other MID States and the ICAO MID Regional Office. The Safety Advisory was distributed for review on 28 September 2014 and was published by the ICAO MID Regional Office on 20 January 2015 as RSA-02 (revised version on 5 February 2015).

2.3.6 In December 2014, the RGS WG provided the ICAO MID Regional Office a draft Safety Advisory regarding *Model Checklist for Runway Safety Teams (RSTs)*. This document was developed by the UAE in coordination with other MID States and the ICAO MID Regional Office. In addition to aligning to the guidance issued in RSA-02, the document also references the ICAO Runway Safety Team Handbook, First Edition, January 2014 and the European Action Plan for the Prevention of Runway Incursions, Issue 2, Appendix B, Guidelines for Runway Safety Teams. The Safety Advisory was published by the ICAO MID Regional Office on 16 March 2015 as RSA-03

2.4 Update on MID-RAST/RGS/3

2.4.1 The meeting may wish to recall that the MID-RAST/RGS/3 focuses on *development guidance material and training programmes to support Aerodrome Infrastructure and Maintenance Management*.

2.4.2 The UAE, as the Champion of this DIP, has completed 40% of the required actions and will conclude the remaining deliverables by June 2015. A summary of actions related to the MID-RAST/RGS/3 DIP is at **Appendix C**. The below paragraphs provide highlights of some actions related to this DIP.

2.4.3 RRSS/2 also included a one day dedicated for an interactive *Workshop on Aerodrome Certification*. The session was moderated by the UAE GCAA and was attended by approximately 100 participants. The Workshop included the following sub-sessions:

- a) Status of Aerodrome Certification in the Mid Region;

- b) Aerodrome Certification Process & Guidance Material;
- c) Application & Initial Assessment of Aerodrome Certification Application;
- d) Certification Verification Actives; and
- e) Issue of Aerodrome Certificate & Oversight.

2.5 **Additional SEIs**

2.5.1 During the RGS WG/1 meeting (Cairo, Egypt, 7-9 April 2014), additional RS SEIs were proposed as follow:

- 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.

2.5.2 The RSC/3 meeting reviewed and supported proposals by the RGS WG/1 to develop additional RGS SEIs on Aerodrome Safeguarding, Wildlife Control, and Laser-attacks. Accordingly, the RSC/3 meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 3/7: 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.*

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the progress of the DIPs related to RASG-MID RGS SEIs and take action, as appropriate; and
- b) agree to the Draft Conclusion in paragraph 2.5.2.

APPENDIX A

Runway Ground Safety (RGS) SEIs

No	Safety Enhancement Action	GASP Safety Initiative (ICAO Doc 10004)	Best Practices Supporting GASP Safety Initiative (ICAO Doc 10004, Appendix 2)	Safety Impact	Changeability	IC Indicator	Priority	Possible Champion	Time Frame	Notes
MID- RAST/RGS/1	RSC/3 meeting (Cairo, Egypt, 9-11 December 2014) recognized that the Un-stabilized Approach is a common factor for RGS and CFIT. It has been agreed that the scope of the MID-RAST/RGS/1 should be addressed under the CFIT DIPs. Mr. Ahmed Saleh AlMessabi, Fleet Safety Pilot, Etihad Airways and CFIT Coordinator was requested to develop additional CFIT DIPs on specific training for pilots and air traffic controllers and promotion of pilot adherence to Standard Operating Procedures to reduce the number of un-stabilized approaches.									
MID-RAST/RGS/2	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams.	Safety Management Collaboration: Promotion of a Multi-Disciplinary Risk Management Approach Safety Information Exchange: Support of Safety Management Implementation	BP-GEN-1 BP-GEN-2 BP-GEN-4 BP-GEN-6 BP-STD-I-4 BP-SIE-I-3	High	Easy	P1	2	United Arab Emirates	Mid-Term	ASR Comment: 4.1.3.2.1 - RE Accidents - 83% occur during landing and 67% during daytime - weather is contributing in 47% (1st rain/2nd windshear) Runway Incursion data not included in RASG-MID ASR - First Edition - however acknowledged by RSC/01 Agenda Item 2 paragraph 2.14
MID-RAST/RGS/3	Focus on Aerodrome Infrastructure and Maintenance Management with priority given to the following:- Promote /monitor Implementation RESA including other means such as arresting systems; - Regulation, guidance and specific training in relation to maintaining aerodrome runway/taxiway related markings; and - Regulation, guidance and specific training in relation to maintaining runways in accordance with Annex 14	Safety Management Standardization: Consistent Implementation of Safety Management Systems Safety Oversight Standardization: Consistent Implementation of International Standards Compliance with National Regulations and Adoption of Industry Best Practices	BP-STD-S-11 BP-STD-I-2 BP-STD-I-4	High	Difficult	P3	3	United Arab Emirates	Long Term	ASR Comments: 4.1.3.2.1 - Ground damage in 33% of accidents related to inadequate markings or signage or inadequate RESA.4.1.3.2.1 - bar chart of contributing factors

Detailed Implementation Plan Template								
RAST No	Safety Enhancement Action	GASP Safety Initiative (ICAO Doc 10004)	Best Practices Supporting GASP Safety Initiative (ICAO Doc 10004, Appendix 2)	Safety Impact	Changeability	Indicator	Priority	Time Frame
MID-RAST/RGS/2	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams.	Safety Management Collaboration: Promotion of a Multi-Disciplinary Risk Management Approach Safety Information Exchange: Support of Safety Management Implementation	BP-GEN-1 BP-GEN-2 BP-GEN-4 BP-GEN-6 BP-STD-1-4 BP-SIE-1-3	High	Easy	P1	2	Mid-Term

Safety Enhancement Action (expanded)	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams with immediate emphasis on - identification and publication of aerodrome Hot Spots and timely; and - accurate notification regarding runway conditions and weather by AIS and ATS units.
Statement of Work	1. Establishment of Regional RST Go-Teams 2. Conduct regional Runway Safety Seminars/Workshops 3. Promote Establishment of Local Runway Safety Teams 4. Publish supporting guidance materials for LRSTs
Champion Organization	UAE
Human Resources	ICAO - International Civil Aviation Organisation (MID) UAE General Civil Aviation Authority UAE National Runway Safety Team
Financial Resources	
Relation with Current Aviation Community Initiative	ICAO Runway Safety Program and RST Handbook ICAO/IATA Runway Excursion Risk Reduction Toolkit FSF Approach and Landing Accident Reduction (ALAR) Toolkit (version June 2010) FSF Runway Safety Initiative (RSI) - "Reducing the Risk of Runway Excursions" FSF Operators Guide to Human Factors in Aviation (FSF European Advisory Committee) FSF Annual Flight Safety Conference (most recent in September 2012) European Action Plan for the Prevention of Runway Excursions European Action Plan for the Prevention of Runway Incursions Airbus - Safety Library - Flight Operations Briefing Notes - Approach Techniques
Performance Goal	Reduce relative number of runway excursions. MID-Regional Safety Strategy: Reduce Runway Excursions related accidents by 50% by the end of 2017. MID-Regional Safety Strategy: Reduce Runway Incursions related accidents by 50% by the end of 2017.
Indicators	See above/below
Key Milestones (Deliverables)	1. Arrange a Workshop for Regional RST Go-Teams - June 2014 2. Develop and issue regulatory framework supporting establishment of LRSTs - September 2014 3. Develop and issue Stop Bar guidance documentation for consideration of LRSTs - April 2014 4. Develop and issue a model checklist for LRSTs - December 2014
Potential Blockers	Availability of required human resources from identified organisations
Responsible	<ul style="list-style-type: none"> • UAE • ICAO - International Civil Aviation Organisation (MID)
DIP Notes	Noting SEIs from other regions it is worthwhile RSTs consider the following: - Air traffic Control Training - general and scenario based - Review of Aerodrome and ATC Standard Operating Procedures including RT Phraseology and Clearance Procedures - Pilot Training - general and scenario based - Scenario Based Training for Tower Controller - Scenario Based Training for Pilots - Note the various ICAO Global and Regional Runway Safety Initiatives related to Runway Safety and RSTs. IFALPA and CANSO may be training resources (see AP SEIs).

Detailed Implementation Plan Template								
RAST No	Safety Enhancement Action	GASP Safety Initiative (ICAO Doc 10004)	Best Practices Supporting GASP Safety Initiative (ICAO Doc 10004, Appendix 2)	Safety Impact	Changeability	Indicator	Priority	Time Frame
MID-RAST/RGS/3	Focus on Aerodrome Infrastructure and Maintenance Management with priority given to the following: - Promote /monitor Implementation RESA including other means such as arresting systems; - Regulation, guidance and specific training in relation to maintaining aerodrome runway/taxiway related markings; and - Regulation, guidance and specific training in relation to maintaining runways in accordance with Annex 14	Safety Management Standardisation: Consistent Implementation of Safety Management Systems Safety Oversight Standardisation: Consistent Implementation of International Standards Compliance with National Regulations and Adoption of Industry Best Practices	BP-STD-S-11 BP-STD-I-2 BP-STD-I-4	High	Easy	P3	3	Long Term
Safety Enhancement Action (expanded)	Focus on Aerodrome Infrastructure and Maintenance Management with priority given to the following: - Promote /monitor Implementation RESA including other means such as arresting systems; - Regulation, guidance and specific training in relation to maintaining aerodrome runway/taxiway related markings; and - Regulation, guidance and specific training in relation to maintaining runways in accordance with Annex 14							
Statement of Work	1. Conduct a MID-Regional Runway Safety Seminar 2. Support aerodrome certification in the MID-Region 3. Develop and issue guidance material on relevant oversight activities							
Champion Organization	UAE							
Human Resources	ICAO - International Civil Aviation Organisation (MID) UAE General Civil Aviation Authority							
Financial Resources								
Relation with Current Aviation Community Initiative	To be completed							
Performance Goal	To be completed							
Indicators	See above/below							
Key Milestones (Deliverables)	1. Conduct a MID-Regional Runway Safety Seminar - June 2014 2. Arrange a regional aerodrome certification workshop - June 2014 3. Develop MID-Region aerodrome certification toolkit for States including core items of Certification Documentation, Safety Management Systems, Physical Characteristics, Runway Surface Friction, Wildlife Hazard Control & Habitat Management, Apron Management, Aerodrome Ground Lighting, Aerodrome Safeguarding, Runway/Taxiway Incursion Prevention, Aerodrome Infrastructure Projects and Runway & Movement Areas - March 2015 4. Develop and issue guidance material on periodic surveillance audits of aerodrome infrastructure and maintenance - April 2015 5. Develop and issue guidance material on proactive oversight of aerodrome infrastructure development - June 2015							
Potential Blockers	Availability of required human resources from identified organisations							
Responsible	<ul style="list-style-type: none"> UAE ICAO - International Civil Aviation Organisation (MID) 							
DIP Notes	<p>DIP will include establishment of supporting regulation and guidance material. Note this will include assessment of physical space as well as technologies adopted into Annex 14 in November 2012 proposed amendment (arresting systems). This SEI will not prevent runway excursions but reduce the consequences of such events.</p> <p>Note process of assessing surface condition and reporting through ATS to flight crew. Adhere to ICAO standard phraseology regarding condition (updated in proposed November 2012 amendments). Ensure reports vetted through ATC based on Aerodrome reporting information and meteorological analysis - and not only repetition of report from previous aircraft.</p> <p>Note EASA maybe working with APAC to develop of supporting survey format. DIP will include development of national regulation, guidance materials and training/awareness initiatives.</p> <p>Note additional SARPs in the recently proposed amendment to Annex 14 (November 2012).</p> <p>May include development of necessary publications including national regulation based on ICAO SARPS and guidance material regarding inspection regimes and surface assessments (i.e. friction) - as well as national or local training and safety awareness initiatives.</p>							

APPENDIX B

DIP Tracking for MID-RAST/RGS/2

Development guidance material and training programmes to support the creation of action plans by local aerodrome Runway Safety Teams (RST)

RGS/2 DIP Deliverable	Target Date	Status	Comments
✓ Develop and issue Stop Bar guidance documentation for consideration of LRSTs	End April 2014	Completed	RASG-MID Safety Advisory (RSA-01) – October 2014 circulated to States on 2 November 2014 (Ref: ME 4-14/253)
✓ Organise a Workshop for Regional RST Go-Teams	End June 2014	Completed	3 June 2014 – see <i>RASG-MID/4 WP/7 - Outcome of MID-RRSS/2</i> for details
✓ Develop and issue regulatory framework supporting establishment of LRSTs	End September 2014	Completed	RASG-MID Safety Advisory (RSA-02) circulated to States on 20 January 2015 (Ref: ME 4-15/014)
✓ Develop and issue a model checklist for LRSTs	End December 2014	Completed	Draft Safety Advisory provided to ICAO MID in December 2014. Review by MID States and ICAO is ongoing.

APPENDIX C

DIP Tracking for MID-RAST/RGS/3

Development guidance material and training programmes to support Aerodrome Infrastructure and Maintenance Management

RGS/3 DIP Deliverable	Target Date	Status	Comments
✓ Conduct a MID-Regional Runway Safety Seminar	End June 2014	Completed	4 June 2014 – see <i>RASG-MID/4 WP/7 - Outcome of MID-RRSS/2</i> for details
✓ Organise a Regional Aerodrome Certification Workshop	End June 2014	Completed	4 June 2014 - see <i>RASG-MID/4 WP/7 - Outcome of MID-RRSS/2</i> and <i>RASG-MID/4 WP/8 - Runway Safety Related Issues</i>
Develop a MID-Region Aerodrome Certification toolkit for States.	End March 2015	In Progress	Target date shifted from January 2015 to March 2015
Develop and issue guidance material on periodic surveillance audits of Aerodrome Infrastructure and Maintenance	End April 2015	In Progress	
Develop and issue guidance material on proactive oversight of Aerodrome Infrastructure Development	End June 2015	In Progress	

- END -