



International Civil Aviation Organization

Runway and Ground Safety Working Group

Third Meeting (RGS WG/3)
(Cairo, Egypt, 19-22 September 2016)

Agenda Item 3: Implementation of Aerodrome Safety Priorities and Objectives in the MID Region

REVIEW AND UPDATE OF THE RGS SEIs

(Presented by UAE/RGS Coordinator)

SUMMARY

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

Action by the meeting is at paragraph 3.

REFERENCES

- Final Report - RASG-MID/5 (Doha, Qatar, 22 – 24 May 2016)

1. INTRODUCTION

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

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. Additional SEIs were endorsed by and RASG-MID/4 (Jeddah, Saudi Arabia, 30 March - 1 April 2015).

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 The meeting is invited to recall that SEI related to Un-stabilized Approach has been addressed as part of the CFIT DIPs.

2.3 Update on MID-RAST/RGS/2

2.3.1 The meeting may recall 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 UAE has completed 100% of the DIP actions. See **Appendix B** for a summary of actions related to the MID-RAST/RGS/2 DIP. 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 consultation with the UAE National Runway Safety Team (NRST) which is a body representing runway safety stakeholders including aerodromes, air operators, air service providers and the regulator. The RGS WG adapted and regionalised the document 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 *2nd 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 from the UAE; the MID States of Egypt, Iran, Oman, Saudi Arabia and Sudan; and organizations including ACI, Airbus, Boeing, COSCAP-GS, Eurocontrol, FAA, IATA and IFATCA. Participants included civil aviation authorities, air navigation service providers, airports, airlines and government agencies. Further details are provided in *RASG-MID/4 WP/7 - Outcome of MID-RRSS/2*.

2.3.5 In September 2014, the RGS WG provided ICAO MID a draft circular regarding *Guidance on Regulatory Framework Supporting Establishment of Local Runway Safety Teams*. This document was developed by the UAE in consultation with the UAE NRST and then adapted for use by MID States. The circular was distributed for review on 28 September 2014 and was published by ICAO MID in January 2015 as RSA-02.

2.3.6 In December 2014, the RGS WG provided ICAO MID a draft circular regarding *Model Checklist for Local Runway Safety Teams (LRSTs)*. This document was developed by the UAE in consultation with the UAE NRST and then adapted for use by MID States. 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 Local Runway Safety Teams. The circular was published by ICAO MID in March 2015 as RSA-03.

2.4 Update on MID-RAST/RGS/3

2.4.1 The meeting is invited to recall the UAE is the champion of MID-RAST/RGS/3 which focuses on development guidance material and training programmes to support Aerodrome Infrastructure and Maintenance Management.

2.4.2 The UAE has completed 80% of the DIP actions and will conclude the remaining deliverables by end November 2016. See **Appendix C** for a summary of actions related to the MID-RAST/RGS/3 DIP. The below paragraphs highlight the significant successes related to this SEI.

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

2.4.4 In August 2015 the RGS WG provided ICAO MID a draft circular regarding *Aerodromes Certification Toolkit*. This document is based on the certification model used by the UAE and included model regulation, oversight processes and supporting forms for both aerodrome operations and rescue firefighting services. The circular was published by ICAO MID in September 2015 as RSA-05.

2.4.5 In April 2016 the RGS WG provided ICAO MID a draft circular regarding *Guidance on Periodic Surveillance Audits of Aerodrome Infrastructure and Maintenance* which provides stand-alone materials focussing on aerodrome safety oversight. This document is based the experience and expertise of the UAE and includes model regulation, processes and supporting forms. The circular was published by ICAO MID in August 2016 as RSA-10.

2.5 Update on MID-RAST/RGS/4

2.5.1 The meeting is invited to recall that Egypt is the Champion of MID-RAST/RGS/4 which focuses on *Aerodrome Safeguarding*.

2.5.2 Egypt is supported by the UAE and Sudan in the development and implementation of the supporting DIP and has completed 50% of the DIP actions through the delivery of a draft Safeguarding Guidance Toolkit to ICAO MID in April 2016. See **Appendix D** for a summary of planned actions related to MID-RAST/RGS/4.

2.6 Update on MID-RAST/RGS/5

2.6.1 The meeting is invited to recall that Sudan is the Champion of MID-RAST/RGS/5 which focuses on *Wildlife Management and Controls*.

2.6.2 Sudan is supported by the UAE, Egypt, Oman, Bahrain and IFATCA in the development and implementation of the supporting DIP which has been 33% completed further to delivery of draft Wildlife Management Control Regulatory Framework & Guidance Materials provided to ICAO MID in April 2016. See **Appendix E** for a summary of planned actions related to MID-RAST/RGS/5.

2.7 Update on MID-RAST/RGS/6

2.7.1 The meeting may recall that Egypt is the Champion of MID-RAST/RGS/6 which focuses on *Laser Attacks*.

2.7.2 Egypt is supported by the UAE, Bahrain and Sudan in the development and implementation of the supporting DIP which has been 66% completed further to this issue of an ICAO State Letter promulgating regulations on Laser Attacks on 3 September 2015 and development of a draft circular for Laser Attacks including Case Studies provided to ICAO MID in May 2016. See **Appendix F** for a summary of planned actions related to MID-RAST/RGS/6.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information in this working paper;
- b) note the progress of the DIPs related to MID-RASG RGS SEIs; and
- c) support development implementation of the SEIs Safety Advisories.

APPENDIX A
RGS SEIs and DIPs

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-I-4 BP-SIE-I-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 - March 2016 5. Develop and issue guidance material on proactive oversight of aerodrome infrastructure development - November 2016
Potential Blockers	Availability of required human resources from identified organisations
Responsible	• UAE • ICAO - International Civil Aviation Organisation (MID)
DIP Notes	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. 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. 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. Note additional SARPs in the recently proposed amendment to Annex 14 (November 2012). 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.

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) 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	RASG-MID Safety Advisory (RSA-03) circulated to States on 16 March 2015 (Ref: ME 4-15/078)

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	Completed	RASG-MID Safety Advisory (RSA-05) circulated to States on 10 September 2015 (Ref: ME 4-15/261)
✓ Develop and issue guidance material on periodic surveillance audits of Aerodrome Infrastructure and Maintenance	End March 2016	Completed	RASG-MID Safety Advisory (RSA-10) circulated to States on 10 September 2015 (Ref: ME 4-15/261)
Develop and issue guidance material on proactive oversight of Aerodrome Infrastructure Development	End November 2016	In Progress	

APPENDIX D

DIP Tracking for MID-RAST/RGS/4

Aerodrome Safeguarding

RGS/4 DIP Deliverable	Target Date	Status	Comments
✓ Safeguarding Guidance Toolkit	April 2016	In Progress	Draft RASG-MID Safety Advisory (RSA-xx) provided materials provided to ICAO MID in April 2016
Regional Workshop	June 2017	Not started	

APPENDIX E

DIP Tracking for MID-RAST/RGS/5

Wildlife Management Control

RGS/5 DIP Deliverable	Target Date	Status	Comments
✓ RSA for Regulatory Framework & Guidance Materials	December 2015	In Progress	Draft materials provided to ICAO MID and under review – not yet published by ICAO MID Office
Templates on WHMP	September 2016	In Progress	
Wildlife Management Control Workshop	September 2018	Not started	

APPENDIX F

DIP Tracking for MID-RAST/RGS/6

Laser Attacks

RGS/6 DIP Deliverable	Target Date	Status	Comments
RSA for Guidance Material	September 2016	In Progress	
✓ ICAO to issue State Letter to promulgate regulations on Laser Attacks	June 2015	Completed	Letter issued by ICAO MID on 3 September 2015
✓ RSA with Case Studies	May 2016	Completed	Draft Completed – not yet published by ICAO MID Office

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